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. In addition, there are interdisciplinary courses, internships, and majors that cross divisional lines; these are found under Interdisciplinary Studies and fall under the direct responsibility of the vice chancellor for academic affairs and dean.

There are also courses from disciplines across the campus offered through Continuing Education. Such courses serve two distinct purposes. Some Continuing Education courses are on topics not found elsewhere in the curriculum and are designed for regularly enrolled students. Other Continuing Education courses are offered primarily to off-campus students enrolled in such programs as extension classes or through GenEdWeb, an online program targeted to academically talented high school students. Courses offered through Continuing Education are designated as such in the last sentence of the course description. All courses offered through Continuing Education have an academic home in one of UMM’s disciplines.

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 91)
Elementary Education (page 93)
Secondary Education (page 97)
Wellness and Sport Science (page 175)

In education programs, students can study education and its role in society; complete a major and teaching licensure in elementary education with a preprimary or middle level specialty; 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 70)
Art, Studio (page 72)
Chinese (page 83)
Dance (page 88)
English (page 103)
French (page 112)
German (page 119)
Humanities (page 125)
Italian (page 130)
Music (page 146)
Philosophy (page 149)
Spanish (page 165)
Speech Communication (page 168)
Theatre Arts (page 173)

The Division of the Humanities is composed of 10 disciplines offering a major, as well as supplementary courses in dance, Italian, 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 symphonic winds, 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 Communication Club, as well as the UMM Intercollegiate Speech Team, which competes at several meets each year.
- Annual offering of faculty- and student-directed plays; opportunities to work with professional troupes in residence; annual theatre tour to New York or London, when feasible.

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 to which Progressive Architecture granted 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 77)
- Chemistry (page 80)
- Computer Science (page 84)
- Geology (page 116)
- Mathematics (page 142)
- Natural Science (page 149)
- Physics (page 151)
- Statistics (page 170)

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 work closely with their professors. Students have conducted research 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 researched the physics of highly excited atoms, studied emissions of astronomical masers, performed observational optical astronomy, and modeled the behavior of materials with computers. They have investigated the role of fire in prairies, invasive species in forests, malformations and disappearance of amphibians, regulation of cell cycles and bioluminescence, genetics of endangered species, microbial resistance to antibiotics, vertebrate embryogenesis, and effects of changing climate and atmosphere on forest trees. 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 a financial
stipend while assisting professors in tasks such
as helping with laboratory courses, tutoring
beginning students, assisting with greenhouse
maintenance, and operating the UMM
telescope.

In geology and biology, field trips are an
integral part of the learning process. Students
and faculty have traveled to the Florida Keys,
central and coastal Belize, the volcanoes
of Hawaii, 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 Science, 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
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 68)
Economics (page 89)
Geography (page 116)
History (page 121)
Liberal Arts for the Human Services
   (page 134)
Management (page 139)
Political Science (page 154)
Psychology (page 157)
Social Science Major (page 161)
Sociology (page 163)
Women’s Studies (page 178)

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**
- African American Studies (page 67)
- European Studies (page 107)
- Interdisciplinary Studies (page 127)
- Latin American Area Studies (page 131)

UMM offers interdisciplinary majors and/or minors, whose educational objectives are realized through an integration of courses from two or more disciplines, in African American Studies, 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.

**Continuing Education, Regional Programs, and Summer Session**
- Anthropology (page 68)
- Art, History (page 70)
- Art, Studio (page 72)
- Biology (page 77)
- Chinese (page 83)
- Dance (page 88)
- Economics (page 89)
- Education (page 91)
- English (page 103)
- French (page 112)
- Geology (page 116)
- History (page 121)

- Humanities (page 125)
- Interdisciplinary Studies (page 127)
- Italian (page 130)
- Management (page 139)
- Music (page 146)
- Political Science (page 154)
- Spanish (165)
- Theatre Arts (page 173)
- Wellness and Sport Science (page 175)

Continuing Education, Regional Programs, and Summer Session (CERP) shares in the liberal arts mission of UMM and also serves as the primary outreach unit of the campus. CERP offers credit and non-credit courses and programs; some are designed to serve regularly enrolled students while others are targeted largely to off-campus students.

Courses offered through Continuing Education are identified at the end of the course description. For complete details on the mission, function, and work of Continuing Education, Regional Programs, and Summer Session see page 8 in this catalog.
Degree Requirements and Course Descriptions

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. Students who have not successfully completed the prerequisite course(s) may be administratively dropped from a course.

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).

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.

Sci-L .......................... Courses that meet specific general education requirements are designated as FYS, CW, FL, M/SR, ArtP, Hist, SS, Hum, FA, Sci, Sci-L, HDiv, Envt, IP, E/CR. (See page 57 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.”

= ................................ Credit will not be granted if credit has been received for the course listed after this symbol (e.g., = [Soc 3602]).

∆ ................................ 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.

Cluster ........................ Some courses are grouped into “clusters” because they have common themes or fulfill common requirements. Most clusters are headed by a paragraph identifying the shared elements of the courses.

The most current version of all UMM course descriptions can be found online at [http://onestop2.umn.edu/courses/mo/designators.jsp]
African American Studies (AfAm)

This interdisciplinary minor is under the authority of the vice chancellor for academic affairs and dean and is administered by the coordinator of African American Studies.

African American experience and culture are central to American experience and culture. The African American Studies minor allows students of all racial and ethnic identities both to concentrate on African American issues and to integrate their understanding of those issues into the broader context of American and African history and culture. The minor offers an interdisciplinary and interdivisional curriculum that enables students to explore a variety of intellectual approaches and to make methodological and thematic connections and comparisons among those several approaches.

Objectives—The objectives of the African American Studies minor are to 1) familiarize students with the variety, depth, and significance of African Americans’ contributions to American culture; 2) enable students to see and appreciate the many African American points of view of history, society, politics, literature, art, and music; 3) help students connect the African American experience to the broader context of Africa and the African diaspora; 4) develop students’ understanding of the nature of race and the dynamics of race and racism, particularly in the United States; and 5) give students a grasp of some of the methodological and intellectual approaches to a broad and multifaceted area of study.

Minor Requirements

Students must take a minimum of six courses in at least three different disciplines. At least four of the six courses must be devoted primarily to African American content. As many as two of the six courses may deal in part with African American content. No grades below C- are allowed in the minor.

Courses with PRIMARILY African American content:
Arth 3241—African American Art
Engl 2041—Introduction to African American Literature
Engl 3331—African American Literature
Hist 3302—African American History to 1865
Hist 3357—African American History Since 1865
Soc 3251—African Americans

Courses with PARTIAL African American content or relevant African content:
Engl 3301—Multicultural American Literature
Fren 1311—West African Francophone Cinema
Fren 3041—FRS: Francophone Worlds
Fren 3042—FRS: Contes francophones
Fren 3043—FRS: Littérature migrante
Hist 3004—Africa to 1700
Hist 3005—Africa Since 1700
Hist 3301—Red, White, and Black: Race/Culture in Early America
Hum 1311—West African Francophone Cinema
Pol 3262—Minorities and Public Policy
Pol 3506—Government and Politics of Africa
Soc 2101—Systems of Oppression
Soc 3121—Sociology of Gender
Soc 3141—Sociology of Deviance

A minimum GPA of 2.00 is required in the minor in order to graduate. The GPA includes all, and only, University of Minnesota coursework. Grades of “F” are included in GPA calculation until they are replaced.

Course Descriptions

Arth 3241. African American Art. (FA; 4 cr; prereq any 1xxx Arth course or jr status or #; fall, even years)
Survey of African American art from colonial times to the present, focusing on social context and aesthetic and biographical issues.

Engl 2041. Introduction to African American Literature. (HDiv; 4 cr; prereq 1011 or equiv; offered when feasible; spring)
Introduction to issues and themes in African American literature and culture, with emphasis on historical and cultural context.

Engl 3301. Multicultural American Literature. (HDiv; 4 cr; prereq 1131, two from 2201, 2202, 2211, 2212; offered when feasible; fall)
Examination of literatures by African American, American Indian, Asian American, Chicana/o, U.S. Latino/a, and other under-represented peoples.

Engl 3331. African American Literature. (HDiv; 4 cr; prereq 1131, two from 2201, 2202, 2211, 2212; offered when feasible) Study of African American literature. Particular attention given to issues of gender, class, power, “passing,” and the racialized body.

Fren 1311. West African Francophone Cinema. (IP; 4 cr; =hum 1311; prereq #; fall, odd years)
Same as Hum 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. Taught in English, but all papers and some reading/discussion will be in French. Meets Francophone requirement in French major.

Fren 3041. Francophone Studies: Francophone Worlds. (IP; 4 cr; prereq or coreq 3011 or #; fall)
Readings in a variety of cultural and literary texts from among French-language writers of Africa, the Caribbean, Asia, North America, and Europe; study of
issues of national identity, race, gender, and postcolonial consciousness. Meets Francophone requirement in French major.

Fren 3042. Francophone Studies: Contes francophones. (IP; 4 cr; prereq or coreq 3011 or #; spring, even years)
Study of the oral tale in African and Caribbean cultures. Examination of the form of these tales, their thematic structure, and how these tales have been translated into written and/or cinematographic texts. Meets Francophone requirement in French major.

Fren 3043. Francophone Studies: Littérature migrante. (IP; 4 cr; prereq or coreq 3011 or #; spring, even years)
Examination of texts written by people on the move: immigrants, migrants, people in exile. How do their texts move with them? How do these movements challenge national paradigms? Meets Francophone requirement in French major.

Hist 3004. Africa to 1700. (Hist; 4 cr; offered when feasible; fall, spring)
History of Africa to 1700.

Hist 3005. Africa Since 1700. (Hist; 4 cr; offered when feasible; fall, spring)
History of Africa since 1700.

Hist 3301. Red, White, and Black: Race/Culture in Early America. (HDiv; 4 cr; fall, every year)
History of race in early America. Exploration of the coming together of three groups of peoples—Africans, American Indians, and Europeans—and the roles which they played in the emergence of the “first new nation.”

Hist 3302. African American History to 1865. (HDiv; 4 cr; offered when feasible; fall, spring)
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 3356. Civil Rights Movement, 1954–1974. (Hist; 4 cr; offered when feasible; fall, spring)
Background of the Civil Rights movement, emergence of the theory and practice of nonviolence, various Civil Rights groups, role of women, legislative and other accomplishments of the movement, its aftermath and influence.

Hist 3357. African American History Since 1865. (HDiv; 4 cr; offered when feasible; fall, spring)
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.

Hum 1311. West African Francophone Cinema. (IP; 4 cr; =Fren 1311; fall, odd years)
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 must enroll in the French equivalent of this course, Fren 1311.

Pol 3506. Government and Politics of Africa. (IP; 4 cr; prereq 1301 or #; fall)
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.

Soc 2101. Systems of Oppression. (HDiv; 4 cr; prereq 1101 or Anth 1111 or #; fall, every year)
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 3121. Sociology of Gender. (HDiv; 4 cr; prereq 1101 or Anth 1111 or #; fall, every year)
An introduction to the sociological study of gender. Focus on gender difference and gender inequality. Analysis of the changing roles, opportunities, and expectations of women and men as their societies (and subsequently, gender relations and power) undergo change in today’s world. Theoretical overview and an examination of how gender affects everyday experiences.

Soc 3141. Sociology of Deviance. (E/CR; 4 cr; prereq 4 cr in Soc or #; fall, every year)
An introduction to the sociological study of deviance. Explore the social reality of deviance within contemporary society and examine the social construction of deviant categories. Specific focus on images of deviance as social constructs, rather than as intrinsic elements of human behavior. Investigation of the complex relationships between individual behavior and social structure, with a focus on power, inequality, and oppression. Also, an examination of the socio-cultural definitions of morality and behavior.

Soc 3251. African Americans. (HDiv; 4 cr; prereq 1101 or Anth 1111; offered when feasible; fall, spring)
Examination of African American religious, economic, political, family, and kinship institutions in the context of the greater American society. Struggles to overcome problems and the degree of success or failure of these struggles are examined and placed in historical context.

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
- Anth 4902—Senior Seminar

*One course from:*

- Anth 3301—India and South Asia
- Anth 3402—American Indian Ethnography
- Anth 3451—Contemporary American Indians
- Anth 3452—American Indian Women
- Anth 3601—Social Change and Development in Latin America
- Anth 3602—Women in Latin America

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+ or 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. The GPA includes all, and only, University of Minnesota coursework. Grades of “F” are included in GPA calculation until they are replaced.

**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

Up to four credits of D+ or D may be used to meet the minor 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 minor. The GPA includes all, and only, University of Minnesota coursework. Grades of “F” are included in GPA calculation until they are replaced.

**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 3204, 3451, 3452, 3601, and 3602 may also be taken for credit in sociology.

**Anth 1111. Introductory Cultural Anthropology.** (SS; 4 cr; fall, spring, every year)

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 1993. Directed Study.**

(1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year)

Individualized on- or off-campus research project or other learning activity not covered in the regular Anthropology curriculum. Topic determined by the student and instructor.

**Anth 2101. Physical Anthropology.** (Sci-L; 4 cr; A-F only; fall, every year)

Prehistoric human life and culture. Processes of human evolution. The fossil record linking anatomically modern humans with our earliest hominoid ancestors. Human and other primate evolution and genetics. Includes a 90-minute lab session to be scheduled.

**Anth 2311. American Indians of the Great Plains: Victims and Victors.** (HDw; 4 cr; =Eng 2311; offered when feasible; summer)

Same as Engl 2311. Government efforts to “civilize” American Indians and Indians’ resistance to these efforts. Course materials address indigenous opposition to the government’s assimilating forces. Travel to important sites of American Indian resistance on the Great Plains. [Continuing Education course]

**Anth 2501. Medical Anthropology—An Overview.** (SS; 4 cr; prereq 1111 or Soc 1101 or #; spring, even years)

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 2993. Directed Study.**

(1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year)

Individualized on- or off-campus research project or other learning activity not covered in the regular anthropology curriculum. Topic determined by the student and instructor.

**Anth 3101. The Anthropology of Religion.** (SS; 4 cr; prereq Anth 1111 or Soc 1101 or #; 4 addtl cr in Anth or Soc recommended; fall, every year)

Comparative study of religion, magic, witchcraft, etc., in various parts of world. Theories and concepts developed by anthropologists in dealing with religious phenomena in a cross-cultural perspective.

**Anth 3201. Cases of Extreme Inequality.** (IP; 4 cr; prereq Anth 1111 or Soc 1101, one addtl Anth or Soc course 2xxx or above or #; spring, odd years)

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, especially such extreme forms of contemporary social inequality as slavery and bonded labor, forced prostitution, infanticide due to poverty, and genocide. The intra- and international effects on same.
**Anth 3202. Culture and Biology.** (Env; 4 cr; prereq 1111 or Soc 1101 or #; spring, every year)
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 3204. Culture, Food, and Agriculture.** (Env; 4 cr; = [Soc 3204]; prereq 1111 or Soc 1101 or #; spring, every year)
Same as Soc 3204. Examines the globalization of food systems utilizing the political ecology of food to understand global and local dimensions of production, marketing, and consumption. Emphasis on connections between food production and national identity, relations of power, genetic engineering, environmental destruction, the politics of world hunger, and local efforts to achieve sustainability.

**Anth 3301. India and South Asia.** (IP; 4 cr; prereq 1111 or Soc 1101 or #; spring, every year)
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 3402. American Indian Ethnography.** (HDiv; 4 cr; prereq 1111 or Soc 1101; fall, every year)
An analysis of ethnographic and ethnohistoric materials focusing on specific American Indian cultures.

**Anth 3411. Seminar in Anthropological Methodology.** (E/CP; 4 cr; prereq 1111 or Soc 1101, 4 addtl cr in Anth or Soc; fall, every year)
Exploration and evaluation of methods used in cultural anthropology, qualitative methods, research ethics, and design of qualitative research project.

**Anth 3451. Contemporary American Indians.** (HDiv; 4 cr; = [Soc 3451]; prereq 1111 or Soc 1101 or #; fall, odd years)
Same as Soc 3451. The cultures of contemporary Indian tribes in the United States. Government policies, gaming, urban populations, education, self-determination, and identity.

**Anth 3452. American Indian Women.** (HDiv; 4 cr; = [Soc 3452]; prereq 1111 or Soc 1101 or #; fall, every year)
Same as Soc 3452. 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 3601. Social Change and Development in Latin America.** (IP; 4 cr; = [Soc 3601]; prereq 1111 or Soc 1101 or #; spring, every year)
Same as Soc 3601. Study of types of social change taking place in Latin America, 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 3602. Women in Latin America.** (IP; 4 cr; = [Soc 3602]; prereq 1111 or Soc 1101 or #; fall, odd years)
Same as Soc 3602. Study of the 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, economic and political conditions, religion and women, etc.

**Anth 3993. Directed Study.** (1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year)
Individualized on- or off-campus research project or other learning activity not covered in the regular anthropology curriculum. Topic determined by the student and instructor.

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

**Anth 4902. Senior Seminar.** (4 cr; prereq 3411, prereq or coreq 4901; A-F only; spring, every year)
Seminar to guide anthropology majors in the completion of a directed study project; selection, definition, and execution of research project. Completion of seminar with research paper and public presentation of research results.

**Anth 4993. Directed Study.** (1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year)
Individualized on- or off-campus research project or other learning activity not covered in the regular anthropology curriculum. Topic determined by the student and instructor.

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**Art History (ArtH)**

This discipline is in the Division of the 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 discover the rich and complex relationship of art to other aspects of culture. 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
and 24 additional credits in art history

No grades below C- are allowed. Required courses may not be taken S-N unless offered S-N only. A minimum GPA of 2.00 is required in the major in order to graduate. The GPA includes all, and only, University of Minnesota coursework. Grades of “F” are included in GPA calculation until they are replaced.
Minor Requirements

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

No grades below C- are allowed. Required courses may not be taken S-N unless offered S-N only. A minimum GPA of 2.00 is required in the minor in order to graduate. The GPA includes all, and only, University of Minnesota coursework. Grades of “F” are included in GPA calculation until they are replaced.

Course Descriptions

ArtH 1101. Principles of Art. (FA; 4 cr; fall, spring, every year)
An introduction to the theories, methods, and vocabulary of art history. Involves development of basic skills of research, 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 to Medieval Art. (FA; 4 cr; offered when feasible; fall)
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; spring, every year)
Survey of the major works of art of western Europe and the United States from 1400 to the present.

ArtH 3101. Art and Archaeology of Ancient Greece. (FA; 4 cr; prereq any 1xxx ArtH course or jr status or #; offered when feasible; fall, spring)
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 3111. Art and Archaeology of Ancient Rome. (FA; 4 cr; prereq any 1xxx ArtH course or jr status or #; spring, even years)
In-depth study of Roman art and archaeology beginning with the Villanovans and Etruscans who preceded the Romans and ending with the rise of Early Christian art. Concentration on the public and political art of the various emperors.

ArtH 3112. Art and the Byzantine Empire. (FA; 4 cr; prereq any 1xxx ArtH course or jr status or #; fall, even years)
A chronological and sociopolitical exploration of the development of art within the Byzantine Empire. The various roles that this art took within and beyond the borders of Byzantium.

ArtH 3113. Islamic Art and Culture. (FA; 4 cr; prereq any 1xxx ArtH course or jr status or #; spring, odd years)
An investigation of Islamic art and architecture in both the secular and religious realms. Examination of these works in the context of the cultures and historical periods that produced them. Begins with the birth of Islamic art and continues up until today.

ArtH 3121. Medieval Italian Art. (FA; 4 cr; prereq any 1xxx ArtH course or jr status or #; spring, even years)
Painting, sculpture, and architecture of 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 and the growth of the town on the art of the period.

ArtH 3142. Art of the Italian Renaissance, 1300-1520. (FA; 4 cr; prereq any 1xxx ArtH course or jr status or #; spring, even years)
A variety of methods (including stylistic, gender, and contextual theories) are used to explore the painting and sculpture of such artists as Giotto, Donatello, Leonardo, Raphael, and Michelangelo.

ArtH 3161. 16th-Century Italian Art. (FA; 4 cr; prereq any 1xxx ArtH course or jr status or #; fall, odd years)
The stylistic and theoretical differences evidenced in the fascinating trends of Mannerism and Venetian Renaissance art.

ArtH 3171. Baroque Art. (FA; 4 cr; prereq any 1xxx ArtH course or jr status or #; spring, even years)
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 3191. American Art to 1900. (FA; 4 cr; prereq any 1xxx ArtH course or jr status or #; fall, odd years)
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 American Indians, African Americans, and women.

ArtH 3201. 19th-Century European Art through Post-Impressionism. (FA; 4 cr; prereq any 1xxx ArtH course or jr status or #; fall, odd years)
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 3211. Early Modernist Art: Symbolism to Surrealism. (FA; 4 cr; prereq any 1xxx ArtH course or jr status or #; spring, even years)
Survey of the major early modernist 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 3221. 20th-Century American Art: 1945 to the Present. (FA; 4 cr; prereq any 1xxx ArtH course or jr status or #; fall, even years)
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 3231. History of Photography. (FA; 4 cr; prereq any 1xxx ArtH course or jr status or #; spring, odd years)
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 3241. African American Art. (FA; 4 cr; prereq any 1xxx Arth course or jr status or #; fall, even years)
Survey of African American art from colonial times to the present, focusing on social context and aesthetic and biographical issues.

Arth 3261. Chinese Art. (FA; 4 cr; prereq any 1xxx Arth course or jr status or #; spring, odd years)
Survey of Chinese arts from the Neolithic times to the 20th century, presented in the context of Chinese culture.

Arth 3281. Women and Art. (FA; 4 cr; prereq any 1xxx Arth course or jr status or #; fall, odd years)
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 3291. Facing the Past: Portraiture and Social History. (FA; 4 cr; prereq any 1xxx Arth course or jr status or #; fall, spring)
This seminar examines functions and formats of portraits created primarily in Western Europe between 1400–1800, in order to gain greater insight as to how various social identities (such as that of husband and wife, child, friend, and freak of nature) were visually constructed and verbally interpreted.

Arth 3311. Italian Renaissance and Baroque Art in Context. (1 cr; offered when feasible; spring)
An opportunity to view and interpret art of the Renaissance and Baroque periods (c. 1400–1700) in its original contexts in Italy and to better comprehend how powerfully art can affect a viewer. [Continuing Education course]

Arth 3993. Directed Study. (1–5 cr [max 10 cr]; prereq any 1xxx Arth course or jr status, approved directed study form; fall, spring, every year)
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 4901. Capstone Assessment of Student Experience in Art History. (1 cr; prereq Arth major, #: S-N or Aud, fall, spring, every year)
Allows students majoring in art history to reflect on the connections among the different courses and experiences they have had in the discipline by compiling a portfolio of their work, writing a short paper, and discussing their experiences with the faculty and other majors.

Arth 4993. Directed Study. (1–5 cr [max 10 cr]; prereq any 1xxx Arth course or jr status, approved directed study form; fall, spring, every year)
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.

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

First Term of Basic Studio
Take all of the following in the same term:
ArtS 1101—Basic Studio Drawing I, ART/P (2 cr)
ArtS 1103—Basic Studio 2-D Design, ART/P (2 cr)
ArtS 1105—Basic Studio Discussion I, ART/P (1 cr)

Second Term of Basic Studio
Take all of the following in the same term:
ArtS 1102—Basic Studio Drawing II, ART/P (2 cr)
ArtS 1104—Basic Studio 3-D Design, ART/P (2 cr)
ArtS 1106—Basic Studio Discussion II, ART/P (1 cr)

Second Year Drawing
ArtS 2101—Drawing From Life I, ART/P (3 cr)
ArtS 2102—Drawing From Life II, ART/P (3 cr)

Concentrated Studio Arts Courses
First Medium:

Printmaking – 12 credits
ArtS 2201—Beginning Printmaking I, ART/P (3 cr)
ArtS 2202—Beginning Printmaking II, ART/P (3 cr)
ArtS 3200—Advanced Printmaking I, ART/P (3 cr)
ArtS 3210—Advanced Printmaking II, ART/P (3 cr)

or Painting – 12 credits
ArtS 2301—Beginning Painting I, ART/P (3 cr)
ArtS 2302—Beginning Painting II, ART/P (3 cr)
ArtS 3300—Advanced Painting I, ART/P (3 cr)
ArtS 3310—Advanced Painting II, ART/P (3 cr)
Art, Studio

or **Sculpture** – 12 credits
ArtS 2401—Beginning Sculpture I, ART/P (3 cr)
ArtS 2402—Beginning Sculpture II, ART/P (3 cr)
ArtS 3400—Advanced Sculpture I, ART/P (3 cr)
ArtS 3410—Advanced Sculpture II, ART/P (3 cr)

or **Ceramics** – 12 credits
ArtS 1050—Beginning Ceramics, ART/P (3 cr)
ArtS 2050—Advanced Ceramics, ART/P (3 cr, repeat to 9 cr)

or **Drawing** – 12 credits
ArtS 1050—Beginning Ceramics, ART/P (3 cr)
ArtS 2050—Advanced Ceramics, ART/P (3 cr, repeat to 6 cr)
ArtS 3005—Media Studies: Digital Imaging, ART/P (3 cr, repeat to 6 cr)

Second Medium:
The medium chosen must be different from first medium

**Printmaking** – 6 credits
ArtS 2201—Beginning Printmaking I, ART/P (3 cr)
ArtS 2202—Beginning Printmaking II, ART/P (3 cr)

or **Painting** – 6 credits
ArtS 2301—Beginning Painting I, ART/P (3 cr)
ArtS 2302—Beginning Painting II, ART/P (3 cr)

or **Sculpture** – 6 credits
ArtS 2401—Beginning Sculpture I, ART/P (3 cr)
ArtS 2402—Beginning Sculpture II, ART/P (3 cr)

or **Ceramics** – 6 credits
ArtS 1050—Beginning Ceramics, ART/P (3 cr)
ArtS 2050—Advanced Ceramics, ART/P (3 cr)

or **Drawing** – 6 credits
ArtS 3100—Advanced Drawing I, ART/P (3 cr)
ArtS 3110—Advanced Drawing II, ART/P (3 cr)

or **Photography/Digital Imaging** – 6 credits
ArtS 2500—Photography, ART/P (3 cr)
ArtS 3005—Media Studies: Digital Imaging, ART/P (3 cr)

Electives, Reviews, and Exhibit
Take 3 or more credits from the following:
ArtS 2xxx
ArtS 3xxx
ArtS 4xxx
ArtS 4902
ArtS 4903

Take 12 or more credits from the following:
ArtH 1xxx
ArtH 3xxx

No grades below C- are allowed. Required courses may not be taken S-N unless offered S-N only. A minimum GPA of 2.00 is required in the major in order to graduate. The GPA includes all, and only, University of Minnesota coursework. Grades of “F” are included in GPA calculation until they are replaced. Studio courses are assessed an individual lab fee.

**Minor Requirements**

**Basic Studio Art Requirement**
Take all of the following in the same term:
ArtS 1101—Basic Studio Drawing I, ART/P (2 cr)
ArtS 1103—Basic Studio 2-D Design, ART/P (2 cr)
ArtS 1105—Basic Studio Discussion I, ART/P (1 cr)
Take all of the following in the same term:
ArtS 1102—Basic Studio Drawing II, ART/P (2 cr)
ArtS 1104—Basic Studio 3-D Design, ART/P (2 cr)
ArtS 1106—Basic Studio Discussion II, ART/P (1 cr)

**Concentrated Studio Arts Courses**
Complete one 12-credit sequence in one major medium or two 6-credit sequences in different media (select from Printmaking, Painting, Sculpture, Drawing, or Photography/Digital Imaging)

A single 12-credit sequence:

**Printmaking** – 12 credits
ArtS 2201—Beginning Printmaking I, ART/P (3 cr)
ArtS 2202—Beginning Printmaking II, ART/P (3 cr)
ArtS 3200—Advanced Printmaking I, ART/P (3 cr)
ArtS 3210—Advanced Printmaking II, ART/P (3 cr)

or **Painting** – 12 credits
ArtS 2301—Beginning Painting I, ART/P (3 cr)
ArtS 2302—Beginning Painting II, ART/P (3 cr)
ArtS 3300—Advanced Painting I, ART/P (3 cr)
ArtS 3310—Advanced Painting II, ART/P (3 cr)

or **Sculpture** – 12 credits
ArtS 2401—Beginning Sculpture I, ART/P (3 cr)
ArtS 2402—Beginning Sculpture II, ART/P (3 cr)
ArtS 3400—Advanced Sculpture I, ART/P (3 cr)
ArtS 3410—Advanced Sculpture II, ART/P (3 cr)

or **Ceramics** – 12 credits
ArtS 1050—Beginning Ceramics, ART/P (3 cr)
ArtS 2050—Advanced Ceramics, ART/P (3 cr, repeat to 9 cr)

or **Drawing** – 12 credits
ArtS 2050—Advanced Ceramics, ART/P (3 cr, repeat to 6 cr)
ArtS 3005—Media Studies: Digital Imaging, ART/P (3 cr, repeat to 6 cr)

or **Photography/Digital Imaging** – 12 credits
ArtS 2500—Photography, ART/P (3 cr, repeat to 6 cr)
ArtS 3005—Media Studies: Digital Imaging, ART/P (3 cr, repeat to 6 cr)
Division Structure and Course Descriptions

OR two 6-credit sequences:
Choose two different media for this option.

**Printmaking – 6 credits**
ArtS 2201—Beginning Printmaking I, ART/P (3 cr)
ArtS 2202—Beginning Printmaking II, ART/P (3 cr)

**or Painting – 6 credits**
ArtS 2301—Beginning Painting I, ART/P (3 cr)
ArtS 2302—Beginning Painting II, ART/P (3 cr)

**or Sculpture – 6 credits**
ArtS 2401—Beginning Sculpture I, ART/P (3 cr)
ArtS 2402—Beginning Sculpture II, ART/P (3 cr)

**or Ceramics – 6 credits**
ArtS 1050—Beginning Ceramics, ART/P (3 cr)
ArtS 2050—Advanced Ceramics, ART/P (3 cr)

**or Drawing – 6 credits**
ArtS 3100—Advanced Drawing I, ART/P (3 cr)
ArtS 3110—Advanced Drawing II, ART/P (3 cr)

**or Photography/Digital Imaging – 6 credits**
ArtS 2500—Photography, ART/P (3 cr)
ArtS 3005—Media Studies: Digital Imaging, ART/P (3 cr)

**Additional Courses**
ArtS 2101—Drawing from Life I, ART/P (3 cr)
ArtS 2102—Drawing from Life II, ART/P (3 cr)

No grades below C- are allowed. Required courses may not be taken S-N unless offered S-N only. A minimum GPA of 2.00 is required in the minor in order to graduate. The GPA includes all, and only, University of Minnesota coursework. Grades of “F” are included in GPA calculation until they are replaced. Studio courses are assessed an individual lab fee.

**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 1001. Visual Studies for Non-Majors: Drawing.** (ArtP; 3 cr [max 6 cr]; no elective cr for ArtS majors or minors; offered when feasible; fall, spring)
Exploration of observational drawing skills through line work in contour and gesture, continuing with studies in value, texture, and space. Contemporary and traditional modes of drawing explored using a variety of materials. For nonmajors with little or no experience in drawing.

**ArtS 1002. Visual Studies for Non-Majors: Digitally Assisted Design.** (ArtP; 3 cr [max 6 cr]; no elective cr for ArtS majors or minors; fall, spring)
Development of skills necessary to produce digital imagery, including fundamental aesthetic concerns (composition, color theory, mark-making, etc.) and knowledge of digital media with emphasis on the technical, conceptual, aesthetic, and ethical aspects of digital imaging as an artistic medium.

**ArtS 1003. Visual Studies for Non-Majors: Beginning Painting.** (ArtP; 3 cr [max 6 cr]; no elective cr for ArtS majors or minors; fall, spring)
The development of painting as a means of artistic expression including basic technical, material, and formal compositional problems. For nonmajors with little or no previous experience in painting.

**ArtS 1004. Visual Studies for Non-Majors: Printmaking.** (ArtP; 3 cr [max 6 cr]; no elective cr for ArtS majors or minors; offered when feasible; fall, spring)
Development of skills necessary to produce imagery using printmaking as a means of expression, including the development of fundamental aesthetic concerns (composition, color theory, mark-making, etc.). For nonmajors with little or no studio experience.

**ArtS 1005. Visual Studies for Non-Majors: Photography.** (ArtP; 3 cr [max 6 cr]; no elective cr for ArtS majors or minors; offered when feasible; fall, spring)
Development of skills necessary to produce imagery using black and white photography as a means of expression, including an introduction to processes, materials, brief history, and critical skills to evaluate photographs. Students must provide their own 35 mm cameras. For nonmajors with little or no studio experience.

**ArtS 1039. Ceramics I.** (ArtP; 3 cr; offered when feasible; fall, spring)
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. (Continuing Education course)

**ArtS 1040. Ceramics II.** (ArtP; 3 cr [max 9 cr]; prereq 1039 or 1050; offered when feasible; fall, spring)
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. [Continuing Education course]

**ArtS 1050. Beginning Ceramics.** (ArtP; 3 cr [max 6 cr]; fall, every year)
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 1101 through 1106. Basic Studio.** (Coreq 1101, 1103, 1105 in fall or coreq 1102, 1104, 1106 in spring; one 1xxr 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 1101. Basic Studio Drawing I.** (ArtP; 2 cr; coreq 1103, 1105; one 1xxr ArtH course recommended during the same year; fall, every year)
Preparation for advanced work in studio art. Basic exercises of drawing, use and exploration of materials
and methods in line and form development, problems of spatial representation.

**Arts 1102. Basic Studio Drawing II.** (ArtP; 2 cr; prereq 1101, coreq 1104, 1106; one 1xxx ArtH course recommended during the same year; spring, every year)
Preparation for advanced work in studio art. Basic exercises of drawing, use and exploration of materials and methods in line and form development, problems of spatial representation.

**Arts 1103. Basic Studio 2-D Design.** (ArtP; 2 cr; coreq 1101, 1105; one 1xxx ArtH course recommended during the same year; fall, every year)
Preparation for advanced work in studio art. Elements of two-dimensional design and color theory, introduction to painting and printmaking.

**Arts 1104. Basic Studio 3-D Design.** (ArtP; 2 cr; prereq 1103, coreq 1102, 1106; one 1xxx ArtH course recommended during the same year; spring, every year)
Preparation for advanced work in studio art. Elements of three-dimensional design, introduction to sculpture.

**Arts 1105. Basic Studio Discussion I.** (ArtP; 1 cr; coreq 1101, 1103; one 1xxx ArtH course recommended during the same year; fall, every year)
Preparation for advanced work in studio art. Elements of three-dimensional design, introduction to sculpture.

**Arts 1106. Basic Studio Discussion II.** (ArtP; 1 cr; prereq 1105, coreq 1102, 1104; one 1xxx ArtH course recommended during the same year; spring, every year)
Preparation for advanced work in studio art. Elements of three-dimensional design, introduction to sculpture.

**Arts 1300. Watercolor Painting.** (ArtP; 3 cr; offered when feasible; fall, spring)
An introduction to various painting techniques in watercolor. [Continuing Education course]

**Arts 1500. Beginning Photography.** (ArtP; 3 cr [max 6 cr]; fall, spring, every year)
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. [Continuing Education course]

**Arts 2050. Advanced Ceramics.** (ArtP; 3 cr [max 9 cr]; prereq 1050 or #: offered when feasible; fall, spring)
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 2101. Drawing from Life I.** (ArtP; 3 cr; prereq major or minor or #: fall, every year)
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 2102. Drawing from Life II.** (ArtP; 3 cr; prereq 2101 recommended; spring, every year)
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 2201. Beginning Printmaking I.** (ArtP; 3 cr; prereq major or minor or #: for nonmajor jrs and srs; fall, every year)
Study of and practice in various methods of printmaking: application of drawing skills, color, composition, and personal expression to printmaking techniques.

**Arts 2202. Beginning Printmaking II.** (ArtP; 3 cr; prereq 2201; spring, every year)
Study of and practice in various methods of printmaking: application of drawing skills, color, composition, and personal expression to printmaking techniques.

**Arts 2301. Beginning Painting I.** (ArtP; 3 cr; prereq major or minor or #: for nonmajor jrs and srs; fall, spring, every year)
The development of painting as a means of artistic expression including basic technical, material, and formal compositional problems.

**Arts 2302. Beginning Painting II.** (ArtP; 3 cr; prereq major or minor or #: for nonmajor jrs and srs; spring, every year)
The development of painting as a means of artistic expression including basic technical, material, and formal compositional problems.

**Arts 2401. Beginning Sculpture I.** (ArtP; 3 cr; prereq major or minor or #: for nonmajor jrs and srs; fall, every year)
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 2402. Beginning Sculpture II.** (ArtP; 3 cr; prereq 2401; spring, every year)
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.

**Media Studies: Courses numbered 30xx explore areas of special interest or timeliness not covered by the regular curriculum.**

**Arts 3001. Media Studies: Public Space, Installation Art, and New Media.** (ArtP; 3 cr [max 9 cr]; prereq major or minor or #:; fall, spring)
Discussion and production of installation and public art. Each student completes three large-scale art projects and one final collaborative installation that is exhibited in the HFA Gallery. Includes exploration of interior space, exterior space, video art, and other contemporary media.

**Arts 3002. Media Studies: Artist's Books.** (ArtP; 3 cr [max 9 cr]; prereq major or minor or #:; fall, spring)
Personal expression through artist’s books. Designed for students who have a working knowledge of the basic principles and skills of art such as drawing, 2D and 3D design, composition, and color theory.

**Arts 3003. Media Studies: Tilemaking.** (ArtP; 3 cr [max 9 cr]; prereq major or minor or #:; fall, spring)
A hands-on exploration of the rich history of functional and decorative tile, including mosaics. Students design and build their own ceramic tile, which is, after firing.
used to construct tabletops and wall-hung murals. A low-fire clay body, as well as stoneware and porcelain, is available for tile construction.

**Arts 3004. Media Studies: Mural Project and Public Art.** (ArtP; 3 cr [max 9 cr]; prereq major or minor or #; fall, spring) Understanding and exploration of contemporary mural art through reading, writing, and production of art. Collaborative production of a large-scale painted mural in a public setting. Designed for students who have a working knowledge of the basic principles and skills of art such as drawing, 2D and 3D design, composition, and color theory.

**Arts 3005. Media Studies: Digital Imaging.** (ArtP; 3 cr [max 9 cr]; prereq major or minor or #; fall, spring) Introduction to the technical, conceptual, aesthetic, and ethical aspects of using the computer to make art. Exploration of digital media software, Web research, scanning, color printing, and digital photography; consideration of the issues facing artists and the art world in the area of digital imaging.

**Arts 3006. Media Studies: Feminist Art: A Studio Perspective.** (ArtP; 3 cr [max 9 cr]; prereq major or minor or #; fall, spring) The impact of the women’s movement of the 1970s on contemporary art. Exploration of the notion of “women’s work” as a studio practice; the materials, methods, and issues that define feminist work.

**Arts 3007. Media Studies: Printmaking.** (ArtP; 3 cr [max 9 cr]; prereq major or minor or #; fall, spring) Study of and practice in various contemporary methods of printmaking: application of drawing skills, color, composition, and personal expression to alternative printmaking techniques.

**Arts 3008. Media Studies: Woodfired Kiln Design and Construction.** (ArtP; 3 cr [max 9 cr]; prereq 1101-1106 [10 cr or #]; fall, spring) Design and construction of a woodfired kiln capable of firing stoneware and porcelain. Examination and critique of historical and contemporary woodfired kiln designs.

**Arts 3012. Media Studies: Ceramics.** (ArtP; 3 cr [max 9 cr]; prereq major or minor in Arts; offered when feasible; fall, spring) Study of and practice in specialized methods and techniques in ceramics not covered under the regular curriculum.

**Arts 3013. Media Studies: Painting.** (ArtP; 3 cr [max 9 cr]; prereq ArtS major or minor; offered when feasible; fall, spring) Study of and practice in various contemporary methods in painting: application of drawing skills, color, composition, and personal expression to alternative painting techniques.

**Arts 3100. Advanced Drawing I.** (ArtP; 3 cr [max 9 cr]; prereq 2101, 2102 recommended; fall, every year) Continued development of the skills and understandings required by traditional problems of drawing.

**Arts 3110. Advanced Drawing II.** (ArtP; 3 cr [max 9 cr]; prereq 2101, 2102; 3100 recommended; spring, every year) Emphasizes self-direction, experimental approaches and materials, and study of contemporary concepts.

**Arts 3200. Advanced Printmaking I.** (ArtP; 3 cr [max 9 cr]; prereq 2202; fall, every year) 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 3210. Advanced Printmaking II.** (ArtP; 3 cr [max 9 cr]; prereq 2202; spring, every year) 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 3300. Advanced Painting I.** (ArtP; 3 cr [max 9 cr]; prereq 2302 or #; fall, every year) 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 3310. Advanced Painting II.** (ArtP; 3 cr [max 9 cr]; prereq 2302 or #; spring, every year) 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 3400. Advanced Sculpture I.** (ArtP; 3 cr [max 9 cr]; prereq 2402; fall, every year) 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 3410. Advanced Sculpture II.** (ArtP; 3 cr [max 9 cr]; prereq 2402; spring, every year) 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 3993. Directed Study.** (1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year) An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.

**Arts 4881. Senior Review.** (0 cr; prereq sr studio art major; S-N only; fall, every year) 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 4901. Senior Exhibit.** (0 cr; prereq sr studio art major or minor; S-N only; spring, every year) Students consult with their adviser and the faculty member facilitating the exhibit for details.

**Arts 4902. Senior Thesis Project I.** (2 cr; prereq senior Arts major, completion of Second Year Portfolio Review; A-F only; fall, every year) A two-semester sequential capstone course for majors, with a focus on the planning and preparation of a senior exhibit and the investigation of other professional skills. Group seminars include portfolio presentation, framing, interviewing, grant writing, and graduate school application. Individual creative research projects focus on development of a thesis and slide talk to accompany the final body of work exhibited in the HFA Gallery during the spring semester. Students participate in a
portfolio review by the studio art and art history faculty, concentrating on work from the major medium and other work completed since the Second-Year Portfolio Review. Time of the review is arranged through the discipline coordinator.

**Arts 4903. Senior Thesis Project II.** (1 cr; prereq 4902; A-F only; spring, every year)
A two-semester sequential capstone course for majors, with a focus on the planning and preparation of a senior exhibit and investigation of other professional skills. Students continue to develop and refine the thesis, slide lecture, and install work in the HFA Gallery during the spring semester for the Senior Exhibit.

**Arts 4993. Directed Study.** (1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year)
An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.

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**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. 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. The biology major prepares students for graduate or professional programs and for careers such as secondary biology education, government service, or private sector employment. The biology discipline also offers a variety of 10xx courses that are designed specifically for students seeking to fulfill general education requirements in science.

**Major Requirements**

**Required Courses**
- Biol 1111—Fundamentals of Genetics, Evolution, and Development, Sci (3 cr)
- Biol 2101—Evolution of Biodiversity, Sci-L (4 cr)
- Biol 2111—Cell Biology, Sci-L (4 cr)
- Biol 3121—Molecular Biology, Sci-L (5 cr)
- Biol 3131—Ecology, Sci-L (4 cr)
- Biol 3700—Biological Communication I (1 cr)
- Biol 3701—Biological Communication II (1 cr)
- Biol 4901—Senior Seminar (1 cr)
- Chem 1101—General Chemistry I, Sci-L (4 cr)
- Chem 1102—General Chemistry II, Sci-L (4 cr)
- Chem 2301—Organic Chemistry I, Sci (4 cr)
- Chem 2302—Organic Chemistry II, Sci (4 cr)
- Chem 2311—Organic Chemistry Lab I (1 cr)
- Math 1021—Survey of Calculus, M/SR (4 cr)
  - or Math 1101—Calculus I, M/SR (5 cr)
- Stat 1601—Introduction to Statistics, M/SR (4 cr)
  - or Stat 2601—Statistical Methods, M/SR (4 cr)

**Elective Courses**

**Take 16 or more credit(s) from the following:**

**Organismal Electives**
- Take 1 or more course(s) from the following:
  - Biol 4111—Microbiology, Sci-L (4 cr)
  - Biol 4121—Herpetology, Sci-L (4 cr)
  - Biol 4131—Vertebrate Natural History, Sci-L (4 cr)
  - Biol 4151—Entomology, Sci-L (4 cr)
  - Biol 4161—Evolution, Sci (4 cr)
  - Biol 4171—Plant Systematics and Evolution, Sci-L (4 cr)
  - Biol 4301—Plant Biology, Sci-L (4 cr)

**Non-Organismal Electives**
- Take 0 or more course(s) from the following:
  - Biol 4003—Neurobiology, Sci-L (4 cr)
  - Biol 4102—Human Physiology, Sci (4 cr)
  - Biol 4181—Developmental Biology, Sci-L (4 cr)
  - Biol 4191—Freshwater Biology, Sci-L (4 cr)
  - Biol 4211—Biochemistry, Sci (4 cr)
  - Biol 4312—Genetics, Sci-L (4 cr)
  - Biol 4321—Animal Physiology, Sci-L (4 cr)
  - Biol 4331—Global Change Ecology, Sci (4 cr)
  - Biol 4351—Conservation Biology, Sci-L (4 cr)

**Other Electives**
- Take 0—1 course(s) from the following:
  - Psy 3211—Biological Psychology, Sci-L (5 cr)
  - Psy 3201—Comparative Psychology, Sci-L (4 cr)
  - Geol 3111—Introduction to Invertebrate Paleontology, Sci-L (4 cr)

Courses may not be taken S-N unless offered S-N only. Up to 5 credits of coursework with a grade of D or D+ may be used to meet the major requirements if offset by an equivalent number of credits of A or B in the major. A minimum GPA of 2.00 is required in the major in order to graduate. The GPA includes all, and only, University of Minnesota coursework. Grades of “F” are included in GPA calculation until they are replaced.

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 advisor by the beginning of their junior year.
Division Structure and Course Descriptions

Minor Requirements

Core Curriculum
Biol 1111—Fundamentals of Genetics, Evolution, and Development, Sci (3 cr)
Biol 2101—Evolution of Biodiversity, Sci-L (4 cr)
Biol 2111—Cell Biology, Sci-L (4 cr)
Chem 1101—General Chemistry I, Sci-L (4 cr)
Chem 1102—General Chemistry II, Sci-L (4 cr)

Effective Courses
Take 2 or more course(s) from the following:
Biol 3121—Molecular Biology, Sci-L (5 cr)
Biol 3131—Ecology, Sci-L (4 cr)
Biol 3701—Biological Communication II (1 cr)
Biol 4003—Neurobiology, Sci-L (4 cr)
Biol 4102—Human Physiology, Sci (4 cr)
Biol 4111—Microbiology, Sci-L (4 cr)
Biol 4121—Herpetology, Sci-L (4 cr)
Biol 4131—Vertebrate Natural History, Sci-L (4 cr)
Biol 4151—Entomology, Sci-L (4 cr)
Biol 4161—Evolution, Sci (4 cr)
Biol 4171—Plant Systematics and Evolution, Sci-L (4 cr)
Biol 4181—Developmental Biology, Sci-L (4 cr)
Biol 4191—Freshwater Biology, Sci-L (4 cr)
Biol 4211—Biochemistry, Sci (4 cr)
Biol 4301—Plant Biology, Sci-L (4 cr)
Biol 4312—Genetics, Sci-L (4 cr)
Biol 4321—Animal Physiology, Sci-L (4 cr)
Biol 4331—Global Change Ecology, Sci (4 cr)
Biol 4351—Conservation Biology, Sci-L (4 cr)

Or choose not more than one of the following non-biology electives:
Psy 3211—Biological Psychology, Sci-L (5 cr)
or Psy 3201—Comparative Psychology, Sci-L (4 cr)
or Geol 3111—Introduction to Invertebrate Paleontology, Sci-L (4 cr)

Courses required for the minor may not be taken S-N. Up to 5 credits of coursework with a grade of D or D+ may be used to meet the minor requirements if offset by an equivalent number of credits of A or B in the minor. A minimum GPA of 2.00 is required in the minor in order to graduate. The GPA includes all, and only, University of Minnesota coursework. Grades of “F” are included in GPA calculation until they are replaced.

Teacher Preparation Requirements

Students seeking teaching licensure in life science 9–12 should refer to the Education, Secondary (SeEd) section of this catalog.

Course Descriptions
Biol 1001. Biological Rhythms. (Sci-L: 4 cr; no elective cr for biol majors or minors; offered when feasible; fall)
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 1002. Human Nutrition. (Sci; 3 cr; no elective cr for biol majors or minors; spring, every year)

Biol 1051. Wildlife Biology. (Sci-L; 4 cr; no elective cr for biol majors or minors; fall, every even year)
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 1052. Introduction to Conservation Biology. (Sci-L; 4 cr; no elective cr for biol majors or minors; offered when feasible; spring)
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 1053. Introduction to Insect Biology. (Sci-L; 4 cr; no elective cr for biol majors or minors; summer, every even year)
Basic concepts in insect biology including evolutionary history, life-cycles, classification, and ecology; examination of how insects and other arthropods interact with human society including insects as vectors of human disease, forensic entomology, insects in agriculture, beneficial uses of insects in the production of food and fiber, and insect-inspired art and literature. (three 75-min lect, two 165-min labs, one all-day field trip required in addition to labs) [Continuing Education course]

Biol 1071. Plants of Minnesota. (Sci-L; 4 cr; no elective cr for biol majors or minors; offered when feasible; summer)
Introduction to plant structure and function, especially those found in Minnesota: ecology, physiology, evolution, and conservation. Labs emphasize plant identification and anatomy.

Biol 1111. Fundamentals of Genetics, Evolution, and Development. (Sci; 3 cr; = [Biol 1101]; prereq biol major/minor or chem major or any health sciences preprofessional program or ElEd or SeEd major with middle school science specialties or #; fall, spring, every year)
Introduction to scientific methods and the history of biology, with an emphasis on mechanisms of inheritance, development, and descent with modification. Overview of pre-Darwinian scientific thought; the theory of evolution; a qualitative introduction to genetics and molecular biology; and a summary of developmental biology.

Biol 2101. Evolution of Biodiversity. (Sci-L; 4 cr; prereq 1101 or 1111 or #; spring, every year)
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 180-min lab)

Biol 2102. Human Anatomy. (3 cr; = [WSS 2102]; prereq soph; fall, every year)
Same as WSS 2102. Structure of human systems at their organ and cellular level. (one 100-min lect, one 120-min lab)
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biol 2111</td>
<td>Cell Biology</td>
<td>(Sci-L; 4 cr; prereq 1101 or 1111, or coreq Chem 1102 or #; fall, every year) 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)</td>
</tr>
<tr>
<td>Biol 3121</td>
<td>Molecular Biology</td>
<td>(Sci-L; 5 cr; prereq 2111, Chem 2301 or #; spring, every year) 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)</td>
</tr>
<tr>
<td>Biol 3131</td>
<td>Ecology</td>
<td>(Sci-L; 4 cr; prereq 2101 or #; fall, every year) Basic principles and models of population biology, community structure and function, and ecosystem dynamics. Lab exercises emphasize field work, 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)</td>
</tr>
<tr>
<td>Biol 3700</td>
<td>Biological Communication I</td>
<td>(1 cr; prereq 2101, 2111; fall, spring, every year) Finding and utilizing sources of biological information. Modern techniques for searching the biological literature, as well as reading and interpreting those sources. Principles and practices of writing in biology.</td>
</tr>
<tr>
<td>Biol 3701</td>
<td>Biological Communication II</td>
<td>(1 cr; prereq 3700, #; fall, spring, every year) Preparation of an extensive literature review paper on a biological topic of the student's choice.</td>
</tr>
<tr>
<td>Biol 4003</td>
<td>Neurobiology</td>
<td>(Sci-L; 4 cr; prereq 2111; fall, odd years) Survey of general principles of neuronal function and formation. Emphasis on comparative aspects of simple nervous systems.</td>
</tr>
<tr>
<td>Biol 4102</td>
<td>Human Physiology</td>
<td>(Sci; 4 cr; prereq 2111 or #; spring, even years) Function of human systems at their organ, cellular and molecular levels. (three 65-min lect)</td>
</tr>
<tr>
<td>Biol 4111</td>
<td>Microbiology</td>
<td>(Sci-L; 4 cr; prereq 2111, or coreq 3121 or #; spring, every year) The biology of pathogenesis and the treatment and prevention of infectious disease. Emphasis on prokaryotic microbes and viruses. (two 65-min lect, one 180-min lab)</td>
</tr>
<tr>
<td>Biol 4121</td>
<td>Herpetology</td>
<td>(Sci-L; 4 cr; prereq 2101; spring, odd years) 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)</td>
</tr>
<tr>
<td>Biol 4131</td>
<td>Vertebrate Natural History</td>
<td>(Sci-L; 4 cr; prereq 2101; fall, odd years) Survey of vertebrates, including their evolution, systematics, and ecological relationships. (two 65-min lect, one 180-min lab or field study)</td>
</tr>
<tr>
<td>Biol 4151</td>
<td>Entomology</td>
<td>(Sci-L; 4 cr; prereq 2101 or #; fall, even years) Structure, life histories, habits, and classification of common families of insects, including their economic significance. (two 65-min lect, 180-min lab)</td>
</tr>
<tr>
<td>Biol 4161</td>
<td>Evolution</td>
<td>(Sci; 4 cr; prereq 2101, 3121 or #; fall, even years) Survey of the history, evidence, and mechanisms of organic evolution. (two 100-min lect)</td>
</tr>
<tr>
<td>Biol 4171</td>
<td>Plant Systematics and Evolution</td>
<td>(Sci-L; 4 cr; prereq 2101, 3121 or #; spring, odd years) Introduction to the identification and phylogeography 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)</td>
</tr>
<tr>
<td>Biol 4181</td>
<td>Developmental Biology</td>
<td>(Sci-L; 4 cr; prereq 2111; 4312 recommended; fall, even years) 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)</td>
</tr>
<tr>
<td>Biol 4191</td>
<td>Freshwater Biology</td>
<td>(Sci-L; 4 cr; prereq 2101, 2111 or #; fall, odd years) 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)</td>
</tr>
<tr>
<td>Biol 4311</td>
<td>Genetics</td>
<td>(Sci-L; 4 cr; #; fall, spring, every year) Optional lab offered. See Biol 4611.</td>
</tr>
<tr>
<td>Biol 4341</td>
<td>Animal Physiology</td>
<td>(Sci-L; 4 cr; prereq 2101, 2111 or #; fall, odd years) Descriptive and experimental study of plants. Anatomy, development, physiology, secondary compounds, evolution, human uses of plants. (two 65-min lect, one 180-min lab)</td>
</tr>
<tr>
<td>Biol 4351</td>
<td>Conservation Biology</td>
<td>(Sci-L; 4 cr; prereq 2101, 3121 or #; spring, odd years) Principles and mechanics of inheritance and variation, including cytological, organismal, and population genetics; mechanisms of evolution; and the genetic problems of humans. (two 65-min lect, 180-min lab)</td>
</tr>
<tr>
<td>Biol 4361</td>
<td>Global Change Ecology</td>
<td>(Sci; 4 cr; prereq 3131 or #; spring, odd years) 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. (two 100-min lect)</td>
</tr>
<tr>
<td>Biol 4371</td>
<td>Conservation Biology</td>
<td>(Sci-L; 4 cr; prereq 1101, 2101, coreq 3131 or #; fall, even years) Application of demographic and genetic models to protect biodiversity, including planning for uncertainty. Population viability, inbreeding depression, contemporary evolution, design and management of reserves, and invasive species. Lab exercises include field trips and computer modeling of endangered species. (two 65-min lect, one 180-min lab)</td>
</tr>
<tr>
<td>Biol 4600</td>
<td>Practicum in Biology</td>
<td>(1-2 cr [max 4 cr]; prereq #; no elective cr for biol majors or minors; S-N only; fall, spring, even years) Supervised experience of selected activities; lab preparation/management, greenhouse care/management, animal care, curating museum/herbarium collections. Repeatable with different projects or activities.</td>
</tr>
</tbody>
</table>
Biol 4611. Biochemistry Lab. (1 cr; prereq or coreq 4211; fall, every year)
Experiments using the major separation and analytical techniques of biochemistry, including centrifugation, chromatography, electrophoresis, immunochemistry, and spectrophotometry. (one 180-minute lab)

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

Biol 4993. Directed Study. (1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year)
An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.

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. Students may also pursue a degree in chemistry with a biochemistry subfield, involving significant coursework in biology. All majors must study beginning physics and calculus. Students may also design an interdisciplinary area of concentration in chemistry-related fields, such as geochemistry or environmental science. Beginning chemistry courses satisfy the physical sciences component of the general education requirements.

Chemistry and biochemistry majors 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, 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, pharmacy, and dentistry; in biological fields related to chemistry; and in a variety of other fields.

The other third 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 post-graduate work in a wide variety of fields, or for a career in industry or in secondary teaching.

Major Requirements

Required Courses
Chem 1101—General Chemistry I, Sci-L (4 cr)
Chem 1102—General Chemistry II, Sci-L (4 cr)
Chem 2301—Organic Chemistry I, Sci (4 cr)
Chem 2302—Organic Chemistry II, Sci (4 cr)
Chem 2311—Organic Chemistry Lab I (1 cr)
Chem 2321—Introduction to Research, Sci-L (2 cr)
Chem 3101—Analytical Chemistry, Sci-L (4 cr)
Chem 3501—Physical Chemistry I, Sci (4 cr)
Chem 3901—Chemistry Seminar I (0.5 cr)
Chem 4901—Chemistry Seminar II (0.5 cr)
Math 1101—Calculus I, M/SR (5 cr)
Math 1102—Calculus II, M/SR (5 cr)
Phys 1101—General Physics I, Sci-L (5 cr)
Phys 1102—General Physics II, Sci-L (5 cr)

Program Sub-Plans
Students are required to complete one of the following sub-plans for the major.

Standard Chemistry Sub-Plan

Required Courses
Chem 3502—Physical Chemistry II, Sci (4 cr)
Chem 3511—Physical Chemistry Lab (1 cr)

Elective Courses
Take 2 or more course(s) from the following:
Chem 3111—Instrumental Analysis, Sci-L (4 cr)
Chem 3701—Inorganic Chemistry, Sci (3 cr)
Chem 3801—History of Chemistry, Sci (3 cr)
Chem 3811—Macromolecules, Sci (3 cr)
Chem 4352—Synthesis, Sci (3 cr)
Chem 4551—Theoretical Chemistry, Sci (3 cr)
Chem 4552—Molecular Spectroscopy, Sci (3 cr)
Chem 4751—Advanced Inorganic Chemistry, Sci (3 cr)
One of the course choices can be either Chem 4351 or the combination of Biol 4211 and 4611.
Chem 4351—Bioorganic Chemistry, Sci (3 cr)
or take all of the following in the same term:
Biol 4211—Biochemistry, Sci (4 cr)
Biol 4611—Biochemistry Lab (1 cr)
Biochemistry Sub-Plan

**Required Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biol 1111</td>
<td>Fundamentals of Genetics, Evolution, and Development, Sci</td>
<td>(3 cr)</td>
</tr>
<tr>
<td>Biol 2111</td>
<td>Cell Biology, Sci-L</td>
<td>(4 cr)</td>
</tr>
<tr>
<td>Biol 3121</td>
<td>Molecular Biology, Sci-L</td>
<td>(5 cr)</td>
</tr>
<tr>
<td>Biol 4211</td>
<td>Biochemistry, Sci (4 cr)</td>
<td></td>
</tr>
<tr>
<td>Biol 4312</td>
<td>Genetics, Sci-L</td>
<td>(4 cr)</td>
</tr>
<tr>
<td>Chem 4351</td>
<td>Bioorganic Chemistry, Sci (3 cr)</td>
<td></td>
</tr>
<tr>
<td>Biol 4611</td>
<td>Biochemistry Lab (1 cr)</td>
<td></td>
</tr>
</tbody>
</table>

**Electives**

*Take 1 or more course(s) from the following:*

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chem 3111</td>
<td>Instrumental Analysis, Sci-L</td>
<td>(4 cr)</td>
</tr>
<tr>
<td>Chem 3502</td>
<td>Physical Chemistry II, Sci</td>
<td>(4 cr)</td>
</tr>
<tr>
<td>Chem 3701</td>
<td>Inorganic Chemistry, Sci</td>
<td>(3 cr)</td>
</tr>
<tr>
<td>Chem 3801</td>
<td>History of Chemistry, Sci</td>
<td>(3 cr)</td>
</tr>
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<tr>
<td>Chem 4352</td>
<td>Synthesis, Sci</td>
<td>(3 cr)</td>
</tr>
<tr>
<td>Chem 4551</td>
<td>Theoretical Chemistry, Sci</td>
<td>(3 cr)</td>
</tr>
<tr>
<td>Chem 4552</td>
<td>Molecular Spectroscopy, Sci</td>
<td>(3 cr)</td>
</tr>
<tr>
<td>Chem 4751</td>
<td>Advanced Inorganic Chemistry, Sci</td>
<td>(3 cr)</td>
</tr>
</tbody>
</table>

Courses may not be taken S-N. Up to 8 credits of coursework with a grade of D or D+ may be used to meet the major requirements if offset by an equivalent number of credits of A or B. A minimum GPA of 2.00 is required in the major in order to graduate. The GPA includes all, and only, University of Minnesota coursework. Grades of “F” are included in GPA calculation until they are replaced. Students should consult members of the chemistry faculty in order to plan programs of study appropriate to their interests and postgraduate goals.

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

**Minor Requirements**

**Required Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chem 1101</td>
<td>General Chemistry I, Sci-L</td>
<td>(4 cr)</td>
</tr>
<tr>
<td>Chem 1102</td>
<td>General Chemistry II, Sci-L</td>
<td>(4 cr)</td>
</tr>
<tr>
<td>Chem 2301</td>
<td>Organic Chemistry I, Sci</td>
<td>(4 cr)</td>
</tr>
<tr>
<td>Chem 2311</td>
<td>Organic Chemistry Lab I (1 cr)</td>
<td></td>
</tr>
</tbody>
</table>

**Elective Courses**

*Three elective courses are required. Students must take either Chem 3101 or 3501. Two additional courses are also required. If Chem 3101 is not taken, one of the two courses must include lab or have an additional concurrent lab registration.*

*If Chem 3101 is taken:*

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chem 3101</td>
<td>Analytical Chemistry, Sci-L</td>
<td>(4 cr)</td>
</tr>
</tbody>
</table>

*Take 2 or more course(s) totaling 6 or more credit(s) from the following:*

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chem 2302</td>
<td>Organic Chemistry II, Sci</td>
<td>(4 cr)</td>
</tr>
<tr>
<td>Chem 3111</td>
<td>Instrumental Analysis, Sci-L</td>
<td>(4 cr)</td>
</tr>
<tr>
<td>Chem 3501</td>
<td>Physical Chemistry I, Sci</td>
<td>(4 cr)</td>
</tr>
<tr>
<td>Chem 3502</td>
<td>Physical Chemistry II, Sci</td>
<td>(4 cr)</td>
</tr>
<tr>
<td>Chem 3701</td>
<td>Inorganic Chemistry, Sci</td>
<td>(3 cr)</td>
</tr>
<tr>
<td>Chem 3801</td>
<td>History of Chemistry, Sci</td>
<td>(3 cr)</td>
</tr>
</tbody>
</table>

Courses may not be taken S-N except where noted. Up to 8 credits of coursework with a grade of D or D+ may be used to meet the minor requirements if offset by an equivalent number of credits of A or B. A minimum GPA of 2.00 is required in the minor in order to graduate. The GPA includes all, and only, University of Minnesota coursework. Grades of “F” are included in GPA calculation until they are replaced.

**Teacher Preparation Requirements**

Students seeking teaching licensure in chemistry 9–12 should refer to the Education, Secondary (SeEd) section of this catalog.
Course Descriptions

Chem 1101. General Chemistry I. (Sci-L; 4 cr; prereq Math 0901 or placement beyond Math 0901 using ACT/placement exam score; fall, every year)
Scientific method, measurements, nomenclature, stoichiometry, atomic and molecular structure, thermodynamics, chemical periodicity, introduction to chemical bonding, and properties of common elements and ions. Development of scientific reasoning and problem-solving skills. Laboratory exercises concomitant with these topics. (3 hrs lect, 3 hrs lab)

Chem 1102. General Chemistry II. (Sci-L; 4 cr; prereq 1101; spring, every year)
Continuation of Chem 1101. Chemical bonding, states of matter, solutions, acid-base chemistry, chemical equilibrium, oxidation-reduction reactions, kinetics, thermodynamics, quantum theory, nuclear chemistry, organic chemistry, and biochemistry. Lab exercises concomitant with these topics. (3 hrs lect, 3 hrs lab)

Chem 1993. Directed Study. (1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year)
An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.

Chem 2301. Organic Chemistry I. (Sci; 4 cr; prereq 1102, coreq 2311; fall, every year)
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 2302. Organic Chemistry II. (Sci; 4 cr; prereq 2301, coreq 2321 or # for chem majors; spring, every year)
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. (4 hrs lect)

Chem 2311. Organic Chemistry Lab I. (1 cr; coreq 2301 or #; fall, every year)
Development of lab techniques in organic chemistry; experimental problem-solving. (3 hrs lab)

Chem 2312. Organic Chemistry Lab II. (1 cr; prereq 2311, coreq 2302 or #; spring, every year)
Laboratory work in organic synthesis, experimental design, and spectroscopic analysis with an emphasis on reactions of biological interest. (3 hrs lab)

Chem 2321. Introduction to Research. (Sci-L; 2 cr; coreq 2302 or #; spring, every year)
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 2993. Directed Study. (1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year)
An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.

Chem 3101. Analytical Chemistry. (Sci-L; 4 cr; prereq 1102; fall, every year)
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; spring, even years)
Principles of chemical instrumentation and instrumental methods of analysis; extensive lab work using chromatographic, spectrophotometric, and electrochemical methods of analysis. (2 hrs lect, 4 hrs lab)

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

Chem 3502. Physical Chemistry II. (Sci; 4 cr; prereq 3501, coreq 3511 or # for chem majors; spring, every year)

Chem 3511. Physical Chemistry Lab. (1 cr; coreq 3502; spring, every year)
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 3701. Inorganic Chemistry. (Sci; 3 cr; prereq 3501 or #; spring, every year)
The periodic table; models of structure and bonding of main group elements and transition metals, nomenclature, symmetry, and bonding theory of coordination compounds. (3 hrs lect)

Chem 3711. Inorganic Chemistry Lab. (1 cr; coreq 3701 or #; spring, even years)
Lab experiments in inorganic/organometallic chemistry illustrating synthetic and spectroscopic techniques. (3 hrs lab)

Chem 3801. History of Chemistry. (Sci; 3 cr; prereq 2301 or #; fall, odd years)

Chem 3811. Macromolecules. (Sci; 3 cr; prereq 2302, 3501 or #; fall, even years)

Chem 3901. Chemistry Seminar I. (0.5 cr; prereq 2321; required of all chem majors; may not count toward chem minor; spring, every year)
Presentations by faculty, guest speakers, and students on topics of current research interest. Students are required to present one seminar for the Chem 3901-4901 sequence.
Chem 3993. Directed Study. (1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year)
An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.

Chem 4351. Bioorganic Chemistry. (Sci; 3 cr; prereq 2302; Biol 4211; spring, odd years)
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. (3 hrs lect)

Chem 4352. Synthesis. (Sci; 3 cr; prereq 2302; fall, odd years)
Study of the preparation of biologically active molecules, emphasizing the application of transition metal chemistry to modern synthetic methods. (3 hrs lect)

Chem 4353. Synthesis Laboratory. (1 cr; prereq 4352 or #; offered when feasible; fall, spring)
Modern organometallic synthetic methods applied to the preparation of small organic molecules. Preparation, purification, analysis, and identification of synthetic products. Scientific record-keeping and literature searching. (3 hrs lab)

Chem 4551. Theoretical Chemistry. (Sci; 3 cr; prereq 3502 or #; offered when feasible; fall)
Quantum theory of molecules. Statistical thermodynamics; Gibbsian ensembles; applications. (3 hrs lect)

Chem 4552. Molecular Spectroscopy. (Sci; 3 cr; prereq 2311, 3101 or #; spring, odd years)
Interaction of molecules and electromagnetic radiation. Spectroscopic determination of molecular structure. Operation of spectrometers and spectrophotometers. (3 hrs lect)

Chem 4751. Advanced Inorganic Chemistry. (Sci; 3 cr; prereq 3701 or #; fall, spring)
Structure and reactions of coordination compounds, inorganic cages and clusters, lanthanide and actinide series. (3 hrs lect)

Chem 4901. Chemistry Seminar II. (0.5 cr; prereq 3901; required of all chem majors; may not count toward chem minor; fall, spring, every year)
Continuation of Chemistry Seminar I.

Chem 4993. Directed Study. (1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year)
An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.

Chinese

This discipline is in the Division of the Humanities. The Chinese discipline introduces students to the study of the language, literature and culture of China. The courses satisfy foreign language and other general education requirements.

Objectives—The Chinese discipline is designed to help students develop a number of skills in Chinese, including comprehension and speaking, reading, and writing, in order to communicate effectively in Chinese on a broad range of topics. The courses are designed to help students develop critical insight into the philosophy and values of another culture as they increase their competence in a second language.

Study Abroad
In light of today’s increasingly interdependent world, the UMM Chinese discipline 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

Chn 1001. Beginning Modern Chinese I. (FL; 4 cr; fall, every year)
First semester of a two-semester sequence in first-year modern standard Chinese (Mandarin) for students who have no previous exposure to the Chinese language. Introduction to the sounds of Mandarin, basic grammar, vocabulary, and the Chinese writing system. [Continuing Education course]

Chn 1002. Beginning Modern Chinese II. (FL; 4 cr; prereq 1001 or #; spring, every year)
Second semester of the two-semester sequence in first-year Chinese. Designed for those who have completed first-semester Chinese or who have equivalent preparation. Introduction to additional modern standard Chinese (Mandarin) grammar, vocabulary, and sentence structures. By the end of the semester, students should be able to recognize some of the Chinese characters, write about part of them from memory, conduct simple conversations, and read simple Chinese texts on general topics. [Continuing Education course]
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 internship experiences 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

Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSci 1301</td>
<td>Problem Solving and Algorithm</td>
<td>4 cr</td>
</tr>
<tr>
<td>CSci 1302</td>
<td>Development, M/SR</td>
<td></td>
</tr>
<tr>
<td>CSci 2101</td>
<td>Foundations of Computer Science,</td>
<td>4 cr</td>
</tr>
<tr>
<td></td>
<td>M/SR</td>
<td></td>
</tr>
<tr>
<td>CSci 2901</td>
<td>Data Structures, M/SR</td>
<td>5 cr</td>
</tr>
<tr>
<td>CSci 3401</td>
<td>Seminar I</td>
<td>1 cr</td>
</tr>
<tr>
<td>CSci 3501</td>
<td>Models of Computing Systems,</td>
<td>5 cr</td>
</tr>
<tr>
<td>CSci 3601</td>
<td>Algorithms and Computability,</td>
<td>5 cr</td>
</tr>
<tr>
<td>CSci 4901</td>
<td>Seminar II</td>
<td>1 cr</td>
</tr>
</tbody>
</table>

Elective Courses

Computer science major electives are divided into three areas: Systems courses (CSci 44xx), Theory courses (CSci 45xx), and Programming and Languages courses (CSci 46xx). The discipline offers an array of courses in each area. The courses listed in this catalog are representative of the courses offered. New courses are continually developed and added to keep up with changes in the field.

Take 10 or more credit(s) including exactly 3 sub-requirement(s) from the following:

Computing Systems Courses (44xx):

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSci 4403</td>
<td>Systems: Data Mining, M/SR</td>
<td>2 cr</td>
</tr>
<tr>
<td>CSci 4406</td>
<td>Systems: Wireless Data Networks,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>M/SR</td>
<td>2 cr</td>
</tr>
<tr>
<td>CSci 4408</td>
<td>Systems: Computer Forensics,</td>
<td>2 cr</td>
</tr>
<tr>
<td>CSci 4451</td>
<td>Systems: Distributed Systems,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>M/SR</td>
<td>4 cr</td>
</tr>
</tbody>
</table>

Math and Statistics Electives

Take 12 or more credit(s) from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Math 1101</td>
<td>Calculus I, M/SR</td>
<td>5 cr</td>
</tr>
<tr>
<td>Math 1102</td>
<td>Calculus II, M/SR</td>
<td>5 cr</td>
</tr>
<tr>
<td>Math 2101</td>
<td>Calculus III, M/SR</td>
<td>4 cr</td>
</tr>
<tr>
<td>Math 2111</td>
<td>Linear Algebra, M/SR</td>
<td>4 cr</td>
</tr>
<tr>
<td>Math 2202</td>
<td>Mathematical Perspectives, M/SR</td>
<td>4 cr</td>
</tr>
<tr>
<td>Math 2401</td>
<td>Differential Equations, M/SR</td>
<td>4 cr</td>
</tr>
<tr>
<td>Math 2501</td>
<td>Probability and Stochastic Processes,</td>
<td>4 cr</td>
</tr>
<tr>
<td></td>
<td>M/SR</td>
<td></td>
</tr>
</tbody>
</table>
Math 3xxx, 4xxx
Stat 2xxx, 3xxx, 4xxx

**Other Science Electives**

*Take 2 or more course(s) totaling 8 or more credit(s) from the following:*
  - Biol 1xxx, 2xxx, 3xx, 4xxx
  - Chem 1xxx, 2xxx, 3xxx, 4xx
  - Geol 1xxx, 2xxx, 3xxx, 4xxx
  - Phys 1xxx, 2xxx, 3xxx, 4xx

No more than two courses with a grade of D or 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. A minimum GPA of 2.00 is required in the major in order to graduate. The GPA includes all, and only, University of Minnesota coursework. Grades of “F” are included in GPA calculation until they are replaced.

**Minor Requirements**

**Required Courses**

- CSci 1301—Problem Solving and Algorithm Development, M/SR (4 cr)
- CSci 1302—Foundations of Computer Science, M/SR (4 cr)
- CSci 2101—Data Structures, M/SR (5 cr)
- CSci 3401—Models of Computing Systems, M/SR (5 cr)
- CSci 3501—Algorithms and Computability, M/SR (5 cr)
- CSci 3601—Software Design and Development, M/SR (5 cr)

**Elective Courses**

*Take 4 or more credit(s) from the following:*
- Math 1021—Survey of Calculus, M/SR (4 cr)
- Math 1101—Calculus I, M/SR (5 cr)
- Math 1102—Calculus II, M/SR (5 cr)
- Math 2101—Calculus III, M/SR (4 cr)
- Math 2111—Linear Algebra, M/SR (4 cr)
- Math 2202—Mathematical Perspectives, M/SR (4 cr)
- Math 2401—Differential Equations, M/SR (4 cr)
- Math 2501—Probability and Stochastic Processes, M/SR (4 cr)
- Math 3xxx, 4xxx
- Stat 1xxx, 2xxx, 3xxx, 4xxx

No more than two courses with a grade of D or 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. A minimum GPA of 2.00 is required in the minor in order to graduate. The GPA includes all, and only, University of Minnesota coursework. Grades of “F” are included in GPA calculation until they are replaced.

**Course Descriptions**

**CSci 1001. Introduction to the Computing World.** (M/SR; 2 cr; no elective cr for CSci majors or minors; fall, spring, every year)
Basic hardware and software concepts, elementary data representation, problem solving techniques, algorithm development, and current information processing and network applications.

**CSci 1021. Introduction to Data Visualization.** (M/SR; 2 cr; no elective cr for CSci majors or minors; offered when feasible; fall, spring)
Principles and methods for visualizing data from measurements and calculations in the physical, life, and social sciences. Emphasis on 3D computer-graphics providing insight into multi-dimensional data sets. Common data visualization techniques, various data formats, visualization tools, and common techniques in information visualization.

**CSci 1101. Dynamic Web Programming.** (M/SR; 2 cr; no elective cr for CSci majors or minors; offered when feasible; fall, spring)
Basics of dynamic Web design; programming and problem-solving using Web languages, such as PHP and HTML, and languages for data storage and manipulation, such as SQL and XML; introduction to client/server model; aspects of online privacy and security. Hands-on experience with creating and maintaining interactive Web pages. No previous programming knowledge or experience required.

**CSci 1201. Introduction to Digital Media Computation.** (M/SR; 4 cr; no elective cr for CSci majors or minors; offered when feasible; fall, spring)
Using images, sounds, and movies to introduce problem solving, data representation, data manipulation, and programming principles including recursion. Introduction to basic ideas in hardware, software, and computing.

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

**CSci 1302. Foundations of Computer Science.** (M/SR; 4 cr; fall, spring, every year)
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 1993. Directed Study.** (1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year)
An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.

**CSci 2101. Data Structures.** (M/SR; 5 cr; prereq 1301 or #; fall, spring, every year)
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 2601. Interactive Computer Graphics.** (M/SR; 4 cr; prereq 2101; offered when feasible; fall, spring)
Introduction to interactive graphics programming. Display hardware, graphics processing pipeline, geometric
Division Structure and Course Descriptions

modeling, image formats, and color theories. Graphics programming using graphics hardware and display technology.

CSci 2901. Seminar I. (1 cr; prereq 1301, 1302; S-N only; fall, spring, every year)
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 2993. Directed Study. (1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year)
An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.

CSci 3401. Models of Computing Systems. (M/SR; 5 cr; prereq 1302, 2101 or #; spring, every year)
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 3501. Algorithms and Computability. (M/SR; 5 cr; prereq 1302, 2101 or #; fall, every year)
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 3511. Introduction to Bioinformatics. (M/SR; 4 cr; prereq 2101, Bioi 2111, Chem 1102 or #; offered when feasible; fall, spring)
Introduction to computational problems arising from molecular biology and genetics. Development and application of algorithmic solutions to these problems. Topics may include sequence analysis, pairwise and multiple sequence alignment, construction of phylogenetic histories, and protein structure and folding. Introduction to online genomics databases.

CSci 3601. Software Design and Development. (M/SR; 5 cr; prereq 1302, 2101 or #; spring, every year)
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 3993. Directed Study. (1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year)
An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.

CSci 4403. Systems: Data Mining. (M/SR; 2 cr; prereq 2101 or #; offered when feasible; fall, spring)
An introduction to a new field which tries to solve the problem of how to store (warehouse) and how to extract (mine) valid, useful, and previously unknown data from a source (database or web) which contains an overwhelming amount of information. Algorithms applied include searching for patterns in the data, using machine learning, and applying artificial intelligence techniques.

CSci 4406. Systems: Wireless Data Networks. (M/SR; 2 cr; prereq 3401 or #; offered when feasible; fall, spring)

CSci 4408. Systems: Computer Forensics. (M/SR; 2 cr; prereq 3401 or #; offered when feasible; spring)
The study of tools and procedures to identify and prosecute computer crime. Topics include electronic discovery, preserving computer evidence, data hiding methods, current forensic and security tools, guidelines for searching and seizing computer equipment.

CSci 4451. Systems: Distributed Systems. (M/SR; 4 cr; prereq 3401 or #; offered when feasible; fall, spring)
An introduction to distributed systems/computation. Topics include processes and threads, physical vs. logical clocks, interprocess communication and coordination, election algorithms, synchronization, distributed task scheduling, distributed shared memory, distributed file systems, and replicated data management.

CSci 4452. Systems: Computer Networks. (M/SR; 4 cr; prereq 3401 or #; offered when feasible; fall, spring)

CSci 4453. Systems: Database Systems. (M/SR; 4 cr; prereq 2101 or #; offered when feasible; fall, spring)
Introduction to relational, object-relational, and object database systems. Topics include the relational model, SQL and related query languages, JDBC and database applications programming, database design, query processing and optimization, indexing techniques, and transaction management.

CSci 4454. Systems: Robotics. (M/SR; 4 cr; prereq 2101 or #; offered when feasible; fall, spring)
An introduction to robotic systems including robot mechanics, algorithms in robotics, and sensor interfaces for autonomous mobile and arm robots. Concepts of kinematics and coordinate systems, real-time programming, embedded systems, pattern recognition algorithms, simulation environments, and subsumption architecture within the context of robotics applications are explored.

CSci 4456. Systems: Advanced Operating Systems. (M/SR; 4 cr; prereq 3401 or #; offered when feasible; fall, spring)
Broad exposure to advanced operating systems topics such as process communication, protection, security, memory management, operating system kernels, network operating systems, synchronization, naming, and distributed systems.

CSci 4506. Theory: Fuzzy Logic and Fuzzy Sets. (M/SR; 2 cr; prereq 3501 or #; offered when feasible; fall, spring)
Fuzzy logic and fuzzy sets are used in expert systems, controllers, pattern recognition, databases, decision making, robotics, and economics. The basic theory of fuzzy sets and fuzzy logic along with a brief survey of some of the current research. May include presentations and/or a project.

CSci 4507. Theory: Data Compression. (M/SR; 2 cr; prereq 3501 or #; offered when feasible; fall, spring)
Introduction to data compression (including lossy and lossless compression techniques), wavelets, differential
encoding techniques (including pulse code and delta modulation), and subband coding with applications to speech, audio, and images. Compression standards such as the CCITT international standard and MPEG audio compression standard.

CSci 4552. Theory: Advanced Algorithms. (M/SR; 4 cr; prereq 3501 or #; offered when feasible; fall, spring)

Techniques for designing and analyzing efficient algorithms to solve a variety of practical problems. Some algorithmic techniques include dynamic programming, greedy methods, and amortized analysis. Other topics include graph algorithms, string matching, approximation algorithms, and NP-Completeness.

CSci 4553. Theory: Evolutionary Computation and Artificial Intelligence. (M/SR; 4 cr; prereq 2101 or #; offered when feasible; fall, spring)

Introduction to Evolutionary Computation as an Artificial Intelligence tool for developing solutions to problems that are difficult to describe precisely or solve formally, as well as comparisons with other AI techniques. Includes discussions of theoretical background and tools, implementation issues, and applications.

CSci 4554. Theory: Cryptography. (M/SR; 4 cr; prereq 1302, 2101 or #; offered when feasible; fall, spring)

Theory and applications of cryptography. Overview of necessary mathematical concepts. Discussion of algorithms and protocols including public and private key encryption, authentication, and zero knowledge proofs.

CSci 4555. Theory: Neural Networks and Machine Learning. (M/SR; 4 cr; prereq 1302, 2101 or #; offered when feasible; fall, spring)

Study of the underlying theory, structure, and behavior of neural networks and of how neural networks compare to and can be used to supplement other methods of machine learning. Methods such as decision tree learning, inductive learning, reinforcement learning, supervised learning, and explanation-based learning are examined. Analysis of the strengths and weaknesses of various approaches to machine learning. Includes an implementation project.

CSci 4556. Theory: Computer Graphics. (M/SR; 4 cr; prereq 1302, 2101 or #; offered when feasible; fall, spring)

Introduction to basic concepts and algorithms in computer graphics, including three-dimensional geometry and various approaches to modeling three-dimensional scenes. An introduction to transformation and viewing, lighting, shading, texture, and color. Advanced topics may include ray tracing, radiosity, and animation. Students complete several significant projects.

CSci 4604. Programming and Languages: Graphical User Interfaces. (M/SR; 2 cr; prereq 3601 or #; offered when feasible; fall, spring)

An exploration into designing Graphical User Interfaces. Aspects of human-computer interaction are discussed along with how to design good user interfaces. Students complete a project using Java’s Swing.

CSci 4605. Programming and Languages: Refactoring. (M/SR; 2 cr; prereq 3601 or #; offered when feasible; fall, spring)

Introduction to methodologies for the long-term development and maintenance of software systems. Discussion of methods of fixing errors and extending functionality in a controlled manner that builds on and improves the underlying system design, as well as tools for regression testing to help catch introduced errors. There is a significant programming component as well as change documentation and classroom presentations.

CSci 4651. Programming and Languages: Programming Languages. (M/SR; 4 cr; prereq 2101 or #; offered when feasible; fall, spring)

History of programming languages, formal specification of syntax and semantics of programming languages from a variety of paradigms (procedural, functional, logic-based, parallel, and object-oriented), modern language features.

CSci 4652. Programming and Languages: Compilers. (M/SR; 4 cr; prereq 3501, 3601 or #; offered when feasible; fall, spring)

Program translations from a variety of paradigms. Lexical analysis and parsing techniques, intermediate representations, type checking, code generation, error detection and recovery, optimization.

CSci 4653. Programming and Languages: Software Engineering. (M/SR; 4 cr; prereq 3601 or #; offered when feasible; fall, spring)

Examination of software engineering techniques and methodologies. Topics include software life cycle models, analytical and software tools used in software engineering, software metrics, testing techniques, design techniques, planning and estimation methodologies, and issues related to the reusability, portability, and interoperability of software systems. Emphasis on the application of these techniques and methodologies to real-world problems. Includes a team-based software development project.

CSci 4654. Programming and Languages: Modern Functional Programming. (M/SR; 4 cr; prereq 1302, 2101 or #; offered when feasible; fall, spring)

Survey of concepts, tools, and techniques from the realm of functional programming. Topics include higher order functions, currying, type systems, concurrency models, mechanisms for managing state, and methods of compilation and evaluation such as graph reduction and term rewriting.

CSci 4655. Programming and Languages: Software Design and Development II. (M/SR; 4 cr; prereq 3601 or #; offered when feasible; May session)

Design and implementation of a medium-scale software system in an intensive, full-time lab setting where teams use object-oriented tools and agile development processes. Emphasis on the creation, evolution, and maintenance of system design.

CSci 4656. Programming and Languages: Human–Computer Interaction and Interface Design. (M/SR; 4 cr; prereq 2101 or #; offered when feasible; fall, spring)

Introduction to the design, evaluation, and implementation of interactive computing systems for human use with a particular emphasis on user interfaces. Possible domains include usability issues for desktop applications, embedded systems, and Web design. Student projects include evaluative studies and sample implementations.

CSci 4657. Programming and Languages: Programming Languages for Client-Server Systems. (M/SR; 4 cr; prereq 3601 or #; offered when feasible; fall, spring)


CSci 4901. Seminar II. (1 cr; prereq 2901, jr or sr; S-N only; fall, spring, every year)

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 4993. Directed Study. (1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year)

An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.

**Dance (Dnce)**

This discipline is in the Division of the Humanities. The program explores dance as a performance art form and cultural expression of various societies throughout the world. It is enhanced by performance opportunities, guest choreographers, conference participation, and other activities sponsored by the UMM Dance Ensemble student organization.

**Objectives**—The dance program helps students develop a working knowledge and a conceptual understanding of dance as an art form. Students are introduced to the cultural roots of dance, the traditions of training for dance performance, and the skills necessary for dance performance. Students interested in pursuing dance may create an area of concentration or emphasis by combining these courses with courses from other disciplines.

**Course Descriptions**

Dnce 1321. Introduction to Modern Dance and Ballet. (ArtP; 1 cr [max 2 cr]; S-N only; fall, every year)

Practice in the fundamental movement vocabulary and steps of dance with an emphasis on traditional ballet techniques and modern dance interpretations. Exploration of body awareness through improvisational exercises and compositional studies. Discussion of the cultural origins of style in dance and the role of dance in contemporary life.

Dnce 1322. Introduction to Jazz and Modern Dance. (ArtP; 1 cr [max 2 cr]; S-N only; spring, every year)

Fundamental movement vocabulary and steps of dance from the unique perspective of American Jazz combined with modern dance. Explores body awareness through improvisational exercises and composed studies. Discussion of dance in contemporary life, individual style, and the cultural origins of jazz music and movement.

Dnce 1323. Introduction to Tap Dance. (ArtP; 1 cr [max 2 cr]; S-N only; fall, every year)

Practice in footwork and introduction to vocabulary that forms the basis of the percussive dance form. Discussion of origins of the dance form, different styles and relationship to musical structures. Practice in improvisational tap skills.

Dnce 1331. Ballet I. (ArtP; 1 cr [max 2 cr]; prereq 1321 or #; fall, spring, every year)

A basic study of ballet including its vocabulary, technique, and history. Appropriate for beginning-level students or students who have completed Dnce 1321 or 1322.

Dnce 1332. Jazz Dance I. (ArtP; 1 cr [max 2 cr]; prereq 1322 or #; spring, every year)

A basic study of jazz dance including its technique, history, and applications. Appropriate for beginning-level students or students who have completed Dnce 1321 or 1322.

Dnce 1333. Modern Dance I. (ArtP; 1 cr [max 2 cr]; prereq 1321 or 1322 or #; spring, every year)

A basic study of modern dance including alignment, technique, and history. Appropriate for beginning-level students or students who have completed Dnce 1321 or 1322.

Dnce 2011. Dance in Society. (HDW; 4 cr; fall, odd years)

Through a broad, cross-cultural survey of the different ways in which dance functions in the modern world, students gain an appreciation of the way this art form reflects social and historical experiences. Includes lectures, readings, and opportunities to see dance through videos, observations, and live performances.

Dnce 2301. Practicum in Dance. (ArtP; 1 cr; prereq #; fall, spring, every year)

Directed projects in performance and production aspects of dance for the stage. Projects can be focused on either choreography or technical theatre for dance.

Dnce 2311. Dance Composition. (ArtP; 4 cr; offered when feasible; fall)

Introduction to the basic elements of choreography, including the use of space, time, energy, abstraction, motif and development, and the selection of music. Using improvisation and assigned movement problems to learn the process of crafting solo and group choreography. [Continuing Education course]

Dnce 2331. Ballet II. (ArtP; 1 cr [max 2 cr]; prereq 1331 or #; ballet slippers required; fall, every year)

A low intermediate-level study of classical ballet. Emphasis on advancing technical skill through conditioning and performance of ballet steps and combinations.

Dnce 2332. Jazz Dance II. (ArtP; 1 cr [max 2 cr]; prereq 1332 or #; spring, every year)

Builds upon 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. Includes a performance experience.

Dnce 2333. Modern Dance II. (ArtP; 1 cr [max 2 cr]; prereq 1333 or #; fall, every year)

Builds upon basic dance vocabulary with movement exercises drawn from traditional schools of modern dance technique (Wigman/Holm, Graham, Humphrey/Limon, Horton, Cunningham). Emphasis is on advancing technical skills through conditioning, improvisation, and movement combinations. Includes a performance experience.

Dnce 2993. Directed Study. (1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, summer, every year)

A learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum such as dance history, choreography and directing, dance education for children.

Dnce 3031. Ballet III. (ArtP; 1 cr [max 3 cr]; prereq 2331 or #; spring, every year)

Advanced-level study of ballet technique with focus on the fine tuning of physical and performing skills. Appropriate for upper-level students. Ballet slippers required. [Continuing Education course]
Dnce 3993. Directed Study. (1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, summer, every year)
A learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum such as dance history, choreography and directing, dance education for children.

Dnce 4993. Directed Study. (1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, summer, every year)
A learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum such as dance history, choreography and directing, dance education for children.

Economics (Econ)
This discipline is in the Division of the Social Sciences.

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

- understand the nature and functioning of the market system
- are able to define criteria for assessing efficiency in the provision of goods and services
- investigate and assess the operation of economic institutions
- are able to evaluate alternative policies intended to enhance economic outcomes
- develop competence in quantitative methods and computing methods
- are able to conceptualize and analyze problems using the tools of economic theory, and communicate the results
- are competent in oral and written communication
- 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 4501—Senior Research Seminar in Economics and Management
Math 1101—Calculus I
Stat 1601—Introduction to Statistics
or Stat 2601—Statistical Methods

Grades of D or 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 or 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. A minimum GPA of 2.00 is required in the major in order to graduate. The GPA includes all, and only, University of Minnesota coursework. Grades of "F" are included in GPA calculation until they are replaced.

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
or Stat 2601—Statistical Methods

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 4501—Senior Research Seminar in Economics and Management

Grades of D or 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. A minimum GPA of 2.00 is required in the minor in order to graduate. The GPA includes all, and only, University of Minnesota coursework. Grades of "F" are included in GPA calculation until they are replaced.

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 1111. Principles of Microeconomics. (SS; 4 cr; prereq high school algebra or #; fall, spring, every year) 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 1112. Principles of Macroeconomics. (SS; 4 cr; prereq high school algebra or #; fall, spring, every year) 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 1951. Seminar for Social Science Majors. (1 cr; prereq 1112; no cr for students who are concurrently enrolled in or have received cr for 3xxx Econ courses; S-N only; fall, spring, every year) Familiarization with various journals, periodicals, and sources of statistical information that deal with current developments in economics.

Econ 1993. Directed Study. (1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, summer, every year) An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.

Econ 2993. Directed Study. (1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, summer, every year) An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.

Econ 3003. Political Economy I. (SS; 2 cr; prereq 1111, 1112 or #; spring) 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 #; spring) 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, Math 1101 or #; offered when feasible; fall, spring) 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 #; offered when feasible; fall, spring) Advanced concepts and applications in experimental and behavioral economics.

Econ 3007. Environmental and Natural Resource Economics I. (Envt; 2 cr; prereq 1111 or #; offered when feasible; fall, spring) An overview of “brown” pollution and “green” sustainability issues in environmental and natural resource economics. Emphasis on the role of market failures in causing environmental problems and on the design of market mechanisms and incentive regulations to solve those problems. Analysis of current federal policy in the areas of water and air pollution.

Econ 3008. Environmental and Natural Resource Economics II. (Envt; 2 cr; prereq 3007 or #; offered when feasible; fall, spring) The economic analysis of sustainability, focusing on market designs to discourage over-exploitation of both renewable and exhaustible natural resources. Topics include markets for water, fisheries, and energy.

Econ 3113. Money, Banking, and Financial Markets. (SS; 4 cr; prereq 1111, 1112 or #; offered when feasible; fall, spring) Analysis of the economics of public expenditures.

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

Econ 3131. Comparative Economic Systems. (IP; 2 cr; prereq 1111, 1112 or #; offered when feasible; fall, spring) Comparison of the theory and functioning of the major economic systems of the world; economic reform in capitalist and socialist economies.

Econ 3141. Economic Development and Growth I. (IP; 2 cr; prereq 1111, 1112 or #; fall, every year) Nature and meaning of economic development. Theories of economic growth and the historical experience of now developed countries. General development problems facing developing countries.

Econ 3142. Economic Development and Growth II. (IP; 2 cr; prereq 3141 or #; fall, every year) 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 3201. Microeconomic Theory. (SS; 4 cr; prereq 1111, Math 1101 or #; offered when feasible; fall, spring) 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 3202. Macroeconomic Theory. (SS; 4 cr; prereq 1112, Math 1101 or #; spring, every year) The theory of national income determination; inflation, unemployment, and economic growth in alternative models of the national economy.

Econ 3211. History of Economic Thought I. (Hist; 2 cr; prereq 1111, 1112; fall, every year) 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 3212. History of Economic Thought II. (Hist; 2 cr; prereq 3211 or #; fall, every year) 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 3351. Globalization: Examining India’s Social and Economic Development.** [IP; 4 cr; =Mgmt 3351; prereq 1111 or 1112 or #; offered when feasible; spring] Same as Mgmt 3351. Observe and study the impact of globalization on the Indian economy. Examine the growing class divide between the middle and upper middle class and the lower class. Study the problem of mass poverty in India and its various ramifications such as child labor, lack of education and basic health care, and the inherent gender bias. Examine sustainable grass roots efforts to combat some of these problems. [Continuing Education course]

**Econ 3501. Introduction to Econometrics.** [M/SR; 4 cr; prereq 3201 or 3202, Stat 1601; spring, every year] 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 3993. Directed Study.** (1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year) An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.

**Econ 4101. Labor Economics I.** [HDiv; 2 cr; prereq 3201 or #; fall, every year] Wage and employment determination. Distribution of earnings and earnings inequality by race and sex. Labor supply applications.

**Econ 4102. Labor Economics II.** [SS; 2 cr; prereq 3201 or #; fall, every year] 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; fall, spring] 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; fall, spring] Topics include linear modeling, input-output analysis and linear programming, efficiency and exchange, comparative static analysis, and dynamic microeconomic and macroeconomic models.

**Econ 4121. International Trade Theory.** [SS; 2 cr; prereq 3201 or #; spring, every year] 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 4131. International Finance.** [SS; 2 cr; prereq 3202 or #; spring, every year] 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 4501. Senior Research Seminar in Economics and Management.** [SS; 2 cr [max 4 cr]; prereq sr or 3501 or #; full year course begins in fall sem; fall, every year] Seminar on selected topics in economics and management. Guided research sessions familiarize students with literature in the field. Students are required to make a formal presentation on their research topic and attend presentations by their peers.

**Econ 4993. Directed Study.** (1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year) An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.

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**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 (grades 5–8) communication arts and literature, mathematics, science, and social studies; and K–8 world languages. (Fullfillment of these requirements leads to K–12 licensure in French, German, or Spanish.) Licensure of secondary school teachers is offered in chemistry (9–12), communication arts and literature (5–12), 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 and includes the 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.
Teacher education at UMM uses personalized instruction and offers opportunities for regional and international student teaching. Teacher candidates 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 cultures, social organizations, and societies; 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 collaboration; ethics and integrity; equity and respect; efficacy and commitment to learning; responsibility; and enthusiasm and openness;

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 1011. Beginning Sign Language I.** (FL; 3 cr; prereq #: fall, every year)
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. [Continuing Education course]

**Ed 1012. Beginning Sign Language II.** (FL; 3 cr; prereq 1011; spring, every year)
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. [Continuing Education course]

**Ed 1020. English in the American University.** (2 cr [max 4 cr]; intended for all international or non-native English speaking students currently attending the University of Minnesota, Morris; S-N only; fall, every year)
Supports international/non-native English speaking students new to academic requirements of American universities. Focuses on reading, discussions, and writing. Students use reading/writing requirements of other courses to satisfy reading/writing requirements for this course. Includes one-on-one work with instructor. [Continuing Education course]

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

**Ed 1111. Introduction to Deaf Education.** (Hum; 2 cr; offered when feasible; fall, spring)
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. [Continuing Education course]

**Ed 1112. Reading With Deaf Learners.** (2 cr; offered when feasible; fall, spring)
Methods and strategies used to teach deaf learners to read. Understanding how deaf learners achieve reading success. Assessment of reading problems in deaf children and selection of appropriate reading materials for deaf learners. [Continuing Education course]

**Ed 1113. Global Deaf Perspectives.** (1 cr; offered when feasible; summer)
Examination of deaf cultures and their portrayal in the United States and other countries in Europe, Africa, and Central America. Emphasis on varying global perspectives of the deaf in families, educational systems, the media, and society. [Continuing Education course]

**Ed 1993. Directed Study.** (1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year)
An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.

**Ed 2011. Intermediate Sign Language I.** (FL; 3 cr; prereq 1012 or #: offered when feasible; fall, spring)
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 will be evaluated. [Continuing Education course]

**Ed 2012. Intermediate Sign Language II.** (FL; 3 cr; prereq 2011; offered when feasible; fall, spring)
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. [Continuing Education course]

**Ed 2101. Foundations and Issues in Education.** (1 cr; coreq 2111; fall, spring, summer, every year) History, philosophy, and purposes of American education; teaching as a profession; issues and trends in education today; career opportunity and certification requirements in education.

**Ed 2102. Introduction to Education in a Global Context.** (IP; 2 cr; fall, spring, summer, every year) Introduction to the teaching profession through application of a global perspective to the study of issues in education. It is recommended that this course be completed in combination with a preprofessional field experience in another country. [Continuing Education course]

**Ed 2111. Tutor-Aide Practicum.** (1 cr; coreq 2101; S-N only; fall, spring, summer every year) Students complete 30 hours of preprofessional field experience in the schools.

**Ed 2112. International Practicum in Elementary Education.** (IP; 1–3 cr [max 3 cr]; IP [if taken for 2 or more cr]; S-N only; fall, spring, summer, every year) Students complete 80 to 120 hours of preprofessional field experience in a school in another country. [Continuing Education course]

**Ed 2113. International Practicum in Secondary Education.** (IP; 1–3 cr [max 3 cr]; IP [if taken for 2 or more cr]; S-N only; fall, spring, summer, every year) Students complete 80 to 120 hours of preprofessional field experience in a school in another country. [Continuing Education course]

**Ed 2201. Perspectives on Young Adult Literature: Schooling, Society, and Culture.** (Hum; 4 cr; offered when feasible; summer) Exposure to multiple genres of young adult literature and brief introduction to various types of response to literature. Special emphasis on multicultural literature, the role of literature in forming moral and cultural values, using literature in the grade 5–12 classroom, and reader response theory and pedagogy. Students read, respond to, select, and evaluate young adult literature.

**Ed 2301. Environmental Science and Place-Based Education.** (Envt; 4 cr; A-F only; summer, every year) Study of the topics, issues, and concepts of environmental science and place-based education while working with environmental specialists and interacting with elementary students at a wetland learning center.

**Ed 2993. Directed Study.** (1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year) An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.

**Ed 4101. Issues and Current Trends in Literacy and Language Education.** (Hum; 4 cr; offered when feasible; summer) Study of themes, issues, and current trends surrounding literacy education including historical foundations of current reading practices, changing definitions of literacy, ideologies that influence understanding and implementation of reading practices, and consideration of complexities of addressing societal literacy concerns.

**Ed 4993. Directed Study.** (1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year) An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.

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**Education, Elementary (EIEd)**

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–6. Students obtaining a K–6 license must also be licensed in a specialty area. The six areas offered at UMM are 1) preprimary, 2) middle level communication arts and literature, 3) middle level mathematics, 4) middle level science, 5) middle level social studies, and 6) world languages K–8.

**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 media 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 pursuing 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 is required overall, in licensure area(s), and in education courses. All courses that fulfill requirements for teaching licensure in elementary education (discipline, professional education, or other courses) must be completed with a grade of C- or higher. Required courses must be taken A-F unless they are offered S-N only.

Admission to the Major

During fall semester of the sophomore year, students attend a 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 prerequisite), Ed 2101—Foundations and Issues in Education, and Ed 2111—Tutor-Aide Practicum.

   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 Praxis I: Pre-Professional Skills Test (PPST).

3. A minimum GPA of 2.50 overall and in the elementary education major. No grade below C- 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
   or
   ElEd 3212—Practicum II: Field Experience in a Middle Level Setting
   ElEd 3102—Middle Level Theory
   Middle Level Methods course in area of specialty—EngE 4122, LanE 4123, MthE 4122, SciE 4122, or SScE 4122

2. A minimum GPA of 2.50 is required overall, in licensure area(s), and in education courses; no grade below C- will be accepted in licensure or education courses.

3. Satisfactory completion of tutor aide and practicum experiences.

4. Approval of teacher education faculty.

Major Requirements

Prerequisite Courses:
Psy 1061—Introduction to the Development of the Child and Adolescent
Ed 2101—Foundations and Issues in Education
Ed 2111—Tutor-Aide Practicum

Program Year One:
ElEd 3101—Teaching and Learning Strategies
ElEd 3102—Reading Methods: Literacy and Language Instruction in the Elementary School
ElEd 3103—Mathematics in the Elementary School
ElEd 3111—Practicum I: Field Experience in the Elementary Classroom

Choose Specialty Area:

Preprimary:
   ElEd 3201—Preprimary Theory and Pedagogy
   and
   ElEd 3211—Practicum II: Field Experience in a Preprimary Setting
or

Middle Level:
   ElEd 3202—Middle Level Theory,
   ElEd 3212—Practicum II: Field Experience in a Middle Level Setting,
   and
   Middle School Methods Course (EngE 4122, MthE 4122, SciE 4122, SScE 4122,
   or
   LanE 4123, which is taken fall semester of Program Year Two)

Program Year Two:
ElEd 4101—Strategies for Inclusive Schooling
ElEd 4102—Social Studies in the Elementary School
ElEd 4103—Science in the Elementary School
EIEd 4104—Language Arts and Literature in the Elementary School
EIEd 4107—Health and Physical Education in the Elementary School
EIEd 4111—Practicum III: Beginning Student Teaching
EIEd 4112—Practicum IV: Experience in the Elementary School Classroom
EIEd 4201—Directed Student Teaching in Primary and Intermediate Grades, or
EIEd 4204—Directed Student Teaching in International School at the Primary and Intermediate Level
EIEd 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 must be taken A-F unless they are offered S-N only. A minimum GPA of 2.50 is required in the major in order to graduate. The GPA includes all, and only, University of Minnesota coursework. Grades of “F” are included in GPA calculation until they are replaced.

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 licensure 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; Spch 1042 or 1052; additional English, any 11xx or above (Engl 3021 recommended)
3. Mathematics and Statistics: Math 1001 and Stat 1601, 2601, or 2611
4. Visual and performing arts: (two courses representing two different disciplines) studio art or art history (ArtS 1050 or ArtH 1101 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 1111, 1112 recommended), political science (Pol 1201 recommended), history (Hist 1301 recommended), sociology (Soc 1101 recommended), geography (Geog 2001 recommended)
6. Science: (two courses representing two different disciplines, at least one 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 below C- will be accepted in licensure or education courses
10. A positive recommendation from the discipline and Division of Education
11. Passing scores on Praxis I and Praxis II and any other state mandated exams for new teachers

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 must be taken A-F unless they are offered S-N only.

Requirements for Specialty Areas

Students seeking K–6 licensure must also obtain a specialty area license. Each specialty area requires a minimum of 28 credits. The six areas and their requirements are listed below.

1. Preprimary education (age 3 to grade 3): Th 2111; Psy 3401 and Psy 3521; Soc 3122; choose two additional courses from Psy 3112, Psy 3302, Psy 3501, Psy 3701, Psy 4101; EIEd 3201—Preprimary Theory and Pedagogy; and EIEd 3211—Practicum II: Field Experience in a Preprimary Setting. A minor in psychology is strongly recommended.
2. Middle level communication arts and literature (grades 5–8): Spch 3071; Engl 1131; choose four additional courses from Ed 2201 or Engl 2xxx or above (Engl 3021 recommended); EIEd 3202—Middle Level Theory; EIEd 3212—Practicum II: Field Experience in a Middle Level Setting; and EngE 4122—Methods of Teaching Communication Arts and Literature in the Middle School. A minor in English is strongly recommended.
3. Middle level mathematics (grades 5–8): Stat 1601, 2601, or 2611 (Stat 2611 recommended); Math 1101; Math 1102; three additional math courses at the 2xxx or above (Math 2111 recommended); EIEd 3202—Middle Level Theory; EIEd 3212—Practicum II: Field Experience in a Middle Level Setting; and MthE 4122—Methods of Teaching Mathematics in the Middle School. A minor in mathematics is strongly recommended.
4. Middle level social studies (grades 5–8): Hist 1301; Anth 1111; Econ 1xxx or above (Econ 1112 recommended); Pol 1xxx or above (Pol 1201 recommended); Soc 1xxx or above (Soc 1101 recommended); one additional course from Anth, Econ, Geog, Hist, Pol, or Soc (Geog 2001 recommended); EIEd 3202—Middle Level Theory; EIEd 3212—Practicum II: Field Experience in a Middle Level Setting; and SScE 4122—Methods of Teaching Social Studies in the Middle School. A minor in anthropology, economics, history, political science, or sociology is strongly recommended.
Division Structure and Course Descriptions

5. Middle level science (grades 5–8): Biol 2101; Geol 1101; Chem 11xx or above (Chem 1101 recommended); Phys 1091 or Phys 1101; two additional courses from Ed 2301, Biol (Biol 2111 recommended), Chem (Chem 1101 recommended), Geol, or Phys (Phys 1092 or 1102 recommended); ElEd 3202—Middle Level Theory; ElEd 3212—Practicum II: Field Experience in a Middle Level Setting; and SciE 4122—Methods of Teaching Science in the Middle School. Students are strongly encouraged to fulfill the General Science 5–8 licensure standards (see SeEd Licensure Area Requirements).

6. World Languages K–8: complete the language content requirements as listed in the secondary education license area requirements (French K–12, German K–12, or Spanish K–12); ElEd 3202—Middle Level Theory; ElEd 3212—Practicum II: Field Experience in a Middle Level Setting; LanE 4123—Methods of Teaching Foreign Language K–12; and SeEd 4202—Directed Student Teaching in the Middle and Secondary School. Fulfillment of these requirements leads to K–12 licensure in French, German, or Spanish.

Students seeking a non-education major or minor should consult the catalog for requirements in the area of interest.

Course Descriptions

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

ElEd 3102. Reading Methods: Literacy and Language Instruction in the Elementary School. (4 cr; prereq admission to elementary teacher education program; A-F only; fall, every year)
Beginning and advanced reading instruction in the elementary grades. Includes study of theory, issues, literacy frameworks, assessment, materials, organization, and instructional strategies to scaffold children’s literacy development.

ElEd 3103. Mathematics in the Elementary School. (3 cr; prereq admission to the elementary teacher education program; A-F only; fall, every year)
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 3111. Practicum I: Field Experience in the Elementary Classroom. (1 cr; prereq admission to the elementary teacher education program; S-N only; fall, every year)
Field experience in the elementary classroom.

ElEd 3201. Preprimary Theory and Pedagogy. (3 cr; prereq 3101, 3102, 3103, 3111; A-F only; spring, every year)
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 3202. Middle Level Theory. (2 cr; prereq 3101, 3102, 3103, 3111; A-F only; spring, every year)
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 3211. Practicum II: Field Experience in a Preprimary Setting. (1 cr; prereq 3101, 3102, 3103, 3111; S-N only; spring, every year)
Field experience in preprimary or kindergarten setting.

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

ElEd 3993. Directed Study. (1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year)
An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.

ElEd 4101. Strategies for Inclusive Schooling. (2 cr; prereq 3101, 3102, 3103, 3111; A-F only; fall, every year)
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 4102. Social Studies in the Elementary School. (2 cr; prereq 3101, 3102, 3103, 3111; A-F only; fall, every year)
Outcomes, content, integration strategies, and assessment of social studies instruction in the elementary curriculum.

ElEd 4103. Science in the Elementary School. (2 cr; prereq 3101, 3102, 3103, 3111; A-F only; fall, every year)
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 4104. Language Arts and Literature in the Elementary School. (3 cr; prereq 3101, 3102, 3103, 3111; A-F only; fall, every year)
Theory, content, assessment, and strategies that support identification, selection, and use of materials and practices in the language arts and children’s literature that foster children’s language development and growth in reading, writing, speaking, listening, viewing, and visually representing.

ElEd 4107. Health and Physical Education in the Elementary School. (1 cr; prereq 3101, 3102, 3103, 3111; A-F only; fall, every year)
Scope, sequence, and related activities in elementary health and physical education.

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

ElEd 4112. Practicum IV: Experience in the Elementary School. (1 cr [max 2 cr]; prereq 3101, 3102, 3103, 3111; S-N only; fall, every year)
Field experience in the elementary classroom.
EIEd 4201. Directed Student Teaching in Primary and Intermediate Grades. (HDiv; 10 cr; prereq 4101, 4102, 4103, 4104, 4111, 4112; S-N only; spring, every year) 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.

EIEd 4202. Directed Student Teaching in Primary and Intermediate Grades. (1-16 cr [max 16 cr]; prereq #; S-N only; fall, spring, every year) 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.

EIEd 4204. 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; spring, every year) 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.

EIEd 4205. Directed Student Teaching in the Elementary School. (1-16 cr [max 16 cr]; prereq #; A-F only; fall, spring, every year) For students from colleges that require A-F grading for student teaching through the Global Student Teaching Program. [Continuing Education course]

EIEd 4901. The Teacher and Professional Development. (2 cr; prereq 4201 or 4204 or #; A-F only; spring, every year) Capstone experience. Professional development issues and philosophy of education, including portfolio assessment.

EIEd 4993. Directed Study. (1-5 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year) An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.

Middle 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 school. Students are required to complete methods course(s) in their licensure area(s). Methods courses must be successfully completed before student teaching in a specific field.

EngE 4122. Methods of Teaching Communication Arts and Literature in the Middle School. (1 cr; A-F only; spring, every year) Objectives, curricula, special methods, materials, and evaluation appropriate for teaching communication arts and literature in the middle and secondary school.

Lane 4123. Methods of Teaching Foreign Language K–12. (4 cr; A-F only; fall, every year) Objectives, curricula, special methods, materials, and evaluation appropriate for teaching foreign language in K–12.

MThE 4122. Methods of Teaching Mathematics in the Middle School. (1 cr; A-F only; spring, every year) Objectives, curricula, special methods, materials, and evaluation appropriate for teaching mathematics in the middle school.

ScIE 4122. Methods of Teaching Science in the Middle School. (1 cr; A-F only; spring, every year) Objectives, curricula, special methods, materials, and evaluation appropriate for teaching science in the middle school.

SScE 4122. Methods of Teaching Social Science in the Middle School. (1 cr; A-F only; spring, every year) Objectives, curricula, special methods, materials, and evaluation appropriate for teaching social science in the middle school.

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 and nonverbal 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.

To obtain a teaching license, an individual 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), 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).
Coursework required for licensure, in most cases, is not equivalent to a major. Consult an adviser in the discipline to determine major requirements.

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 is required overall, in licensure area(s), and in education courses. The GPA includes all, and only, University of Minnesota coursework. Grades of “F” are included in GPA calculation until they are replaced. 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. Required courses must be taken A-F unless they are offered S-N only.

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
- Chem 2321—Introduction to Research
- Chem 3101—Analytical Chemistry
- Chem 3501—Physical Chemistry I
- Biol 4211—Biochemistry
- Biol 4611—Biochemistry Lab
- Math 1101—Calculus I
- Phys 1101—General Physics I

**Communication Arts and Literature 5–12**
- Engl 1131—Introduction to Literature

  **One of two:**
  - Engl 3001—Advanced Expository Writing
  - Engl 3005—Understanding Writing Theories and Practice
  - Engl 3021—Grammar and Language
  - Engl 3159—Shakespeare is not required but is strongly recommended.

  **One of two:**
  - Engl 3301—U.S. Multicultural and Multiracial Literatures
  - Ed 2201—Perspectives on Young Adult Literature: Schooling, Culture, and Society
  - Spch 2101—Introduction to Theories of Speech Communication
  - Spch 3071—Practices of Speech Communication
  - Spch 4151—Argumentation: Theory and Practice

**Earth and Space Science 9–12**
- Geol 1001—Environmental Geology: Geology in Daily Life
- Geol 1101—Physical Geology
- Geol 2101—Mineralogy and Crystallography
- Geol 2111—Igneous and Metamorphic Petrology
- Geol 2121—Sedimentology and Stratigraphy
- Geol 2141—Glacial and Quaternary Geology
- Geol 2151—Historical Geology: Earth History and Changing Scientific Perspectives
- Geol 3101—Structural Geology
- Geol 3401—Geophysics
- Geol 4901—Geology Senior Seminar
- Geol 4902—Geology Senior Seminar Presentation
- Math 1101—Calculus I
- Phys 1052—The Solar System
- Phys 1053—Introduction to Stars, Galaxies, and Cosmology

**French K–12**
- Fren 2001—Intermediate French I
- Fren 2002—Intermediate French II
- Fren 2011—Introduction to French Phonetics
- Fren 3001—Conversation and Composition
- Fren 3011—Reading and Analysis of Texts
- Fren 4011—Thème et Version

**One course from Early Modern Studies Cluster:**
- Fren 3022—EMS: French Culture I: Medieval and Early Modern France
- Fren 3023—EMS: French Literature I: Medieval and Early Modern France
- Fren 3024—EMS: French Fairy Tale and the Fantastic
- Fren 3025—EMS: Wonder and the Marvelous

**One course from Modern Studies Cluster:**
- Fren 3032—MOS: French Culture II: Modern and Contemporary France
- Fren 3033—MOS: French Literature II: Revolution, Romanticism, Modernity
- Fren 3034—MOS: French Poetry and Music

**One course from Francophone Studies Cluster:**
- Fren 3041—FRS: Francophone Worlds
- Fren 3042—FRS: Contes Francophones
- Fren 3043—FRS: Littérature Migrante
- Fren 3044—FRS: L’Amérique Francophone

Study abroad is strongly encouraged.

**General Science 5–8**
- Biol 2101—Evolution of Biodiversity (Biol 1111 prereq is waived)
Biol 2111—Cell Biology (Biol 1111 prereq is waived)
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
Prerequisites for Phys 1101 and 1102 include Math 1101—Calculus I and Math 1102—Calculus II.

German K–12 (offered when feasible; contact the Division of Education for more information)
Ger 2001—Intermediate German I
Ger 2002—Intermediate German II
Ger 2011—German Conversation and Composition
Ger 3011—Readings in German
Ger 3101—Survey of German Literature and Culture I
Ger 3102—Survey of German Literature and Culture II
Ger 3203—Periods: German Modernism
Ger 3611—Austrian Studies
Study abroad is strongly encouraged.

Instrumental Music K–12
Mus 1080—Jazz Combo
Mus 1101—Core Studies I: Music Theory I
Mus 1300—Concert Band
Mus 1330—Jazz Ensemble
Mus 3200-3223—Advanced Individual Performance Studies in wind, string, percussion, or keyboard*
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 3331—Choral Conducting and Materials
Mus 4901—Senior Project
Instrument Repair Clinic
*Consult with Music faculty to determine performance studies requirements.

Life Science 9–12
Biol 1111—Fundamentals of Genetics, Evolution, and Development
Biol 2101—Evolution of Biodiversity
Biol 2111—Cell Biology
Biol 3121—Molecular Biology
Biol 3131—Ecology
Biol 3701—Biological Communications
Biol 4312—Genetics

Biol 4901—Senior Seminar or equivalent research presentation experience
Chem 1101—General Chemistry 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

Mathematics 5–12
Math 1101—Calculus I
Math 1102—Calculus II
Math 2101—Calculus III
Math 2111—Linear Algebra
Math 2202—Mathematical Perspectives
Math 2211—History of Math
Math 3211—Geometry
Math 3231—Abstract Algebra
Math 3411—Discrete and Combinatorial Mathematics
Stat 2611—Mathematical Statistics

Physics 9–12
Math 1101—Calculus I
Math 1102—Calculus II
Also recommended (required for Physics major):
Math 2101—Calculus III
Math 2401—Differential Equations
Phys 1101—General Physics I
Phys 1102—General Physics II
Phys 2101—Modern Physics
Phys 2201—Circuits and Electronic Devices
Phys 3301—Optics
Phys 3501—Statistical Physics
Phys 4101—Electromagnetism
Phys 4201—Quantum Mechanics
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 Science Majors
Geog 2001—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: The area of focus most often is demonstrated by completing the minor in that discipline. Consult the Social Science Major
section of the catalog and/or a social science adviser for more information on area of focus required courses. Area of focus plans should be on file with the Social Science Division Office by the end of a student’s junior year.

**Spanish K–12**
- Span 2001—Intermediate Spanish I
- Span 2002—Intermediate Spanish II
- Span 3001—Spanish Composition and Conversation I
- Span 3002—Spanish Composition and Conversation II
- Span 3101—Introduction to Hispanic Literature
- Span 3211—Literature and Culture of Latin America
- Span 3212—Literature and Culture of Spain

Study abroad is strongly encouraged.

**Visual Arts K–12**
- ArtH 1101—Principles of Art
- ArtH 1111—Ancient to Medieval Art
- ArtH 1121—Renaissance to Modern Art
- 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

One of two:
- ArtS 2500—Photography
- ArtS 3005—Media Studies: Digital Imaging

One of two:
- ArtS 3002—Artist’s Books
- ArtS 3006—Feminism: A Studio Perspective

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

**Ceramics**
- ArtS 1050—Beginning Ceramics
- ArtS 2050—Advanced Ceramics

**Vocal Music K–12**
- Mus 1080—Jazz Combo
- Mus 1101—Core Studies I: Music Theory I
- Mus 1201—Piano Accompanying

One of two:
- Mus 1310—University Choir
- Mus 1320—Concert Choir
- Mus 3200–3223—Advanced Individual Performance Studies in voice, keyboard, or guitar*
- 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 3352—Choral Arranging
- Mus 4901—Senior Project

*Consult with Music faculty to determine performance studies requirements.

**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), Ed 2101—Foundations and Issues in Education, and Ed 2111—Tutor-Aide Practicum

   Though not required for admission, Psy 1081—Drugs and Human Behavior and Spch 1042—Public Speaking and Analysis or Spch 1052—Introduction to Public Speaking are required courses for licensure. It is recommended that students complete these courses prior to beginning the program.

   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 Praxis I: Preprofessional Skills Test (PPST).
3. A minimum GPA of 2.50 overall, in required licensure area(s), and in education courses. No grade below C- 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
1. Successful completion of SeEd 4102—Teaching and Learning Strategies, SeEd 4103—Practicum Experience in the Middle and Secondary School, SeEd 4104—Teaching Diverse Learners, and SeEd 4105—Reading and Literacy in the Content Areas.
2. Successful completion of licensure area methods course(s).
3. Satisfactory completion of tutor aide and practicum experiences.
4. Spch 1042—Public Speaking and Analysis or Spch 1052—Introduction to Public Speaking.
5. A minimum GPA of 2.50 overall, in required licensure area(s), and in education courses. No grade below C- 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 Praxis I and Praxis II and any other state mandated exams 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 program. After seven years, all education courses previously taken become void and must be retaken for licensure. Required courses must be taken A-F unless they are offered S-N only.

Course Descriptions
SeEd 3993. Directed Study. (1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year) An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.

SeEd 4102. Teaching and Learning Strategies. (4 cr; prereq admission to the secondary teacher education program; coreq 4103, 4104, 4105, methods; A-F only; fall, every year) 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 4103. Practicum Experience in the Middle and Secondary School. (4 cr; prereq admission to the secondary teacher education program; coreq 4102, 4104, 4105, methods; S-N only; fall, every year) Field experience in the middle and secondary school.

SeEd 4104. Teaching Diverse Learners. (HDiv; 2 cr; prereq admission to the secondary teacher education program; coreq 4102, 4103, 4105, methods; A-F only; fall, every year) Study of teaching/learning in diverse settings. Topics include inclusive/special education; multiple intelligences/learning styles; multicultural education; race, gender, sexual orientation, disability, culture, and class; effects of inequity on schooling; preventing and responding to prejudice and discrimination; and intercultural communication.
SeEd 4105. Reading and Literacy in the Content Areas. (2 cr; prerequisite admission to the secondary teacher education program; coreqs 4102, 4103, 4104, methods; A-F only; fall, every year) Study of how teachers in the various academic disciplines can support reading and literacy in their classrooms and use reading and literacy to enhance learning in the disciplines. Topics include theory and instructional strategies in the areas of reading comprehension, fluency, and vocabulary development.

SeEd 4201. Directed Student Teaching in the Middle and Secondary School. (HDiv: 10 cr; prerequisite 4102, 4103, 4104, 4105, methods, Spch 1042 or Spch 1052; S-N only; spring, every year) 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 4202. Directed Student Teaching in the Middle and Secondary School. (1-16 cr [max 16 cr]; prerequisite #; S-N only; fall, spring, every year) 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 4204. Directed Student Teaching in International School at the Middle and Secondary Level. (JP: 10 cr; prerequisite 4102, 4103, 4104, 4105, methods, Spch 1042 or Spch 1052; S-N only; spring, every year) 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 4205. Directed Student Teaching in the Secondary School. (1-16 cr [max 16 cr]; prerequisite #; A-F only; fall, spring, every year) For students from colleges that require A-F grading for student teaching through the Global Student Teaching Program. [Continuing Education course]

SeEd 4901. The Teacher and Professional Development. (2 cr; prerequisite 4201 or 4204 or #; A-F only; spring, every year) Capstone experience. Professional development issues and philosophy of education, including portfolio assessment.

SeEd 4993. Directed Study. (1-5 cr [max 10 cr]; prerequisite approved directed study form; fall, spring, every year) An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.

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 must complete methods course(s) in their licensure area(s). Methods courses are taken concurrently with secondary education block courses—SeEd 4102, 4103, 4104, 4105—and must be successfully completed before student teaching in a specific field.

ArtE 4213. Methods of Teaching Art K–12. (4 cr; A-F only; fall, every year) Objectives, curricula, special methods, materials, and evaluation appropriate for teaching art in K–12.

EngE 4211. Methods of Teaching Communication Arts and Literature in the Middle and Secondary School. (4 cr; A-F only; fall, every year) Objectives, curricula, special methods, materials, and evaluation appropriate for teaching communication arts and literature in the middle and secondary school.

LanE 4213. Methods of Teaching Foreign Language K–12. (4 cr; A-F only; fall, every year) Objectives, curricula, special methods, materials, and evaluation appropriate for teaching foreign language in K–12.

MthE 4211. Methods of Teaching Mathematics in the Middle and Secondary School. (4 cr; A-F only; fall, every year) Objectives, curricula, special methods, materials, and evaluation appropriate for teaching mathematics in the middle and secondary school.

MusE 4213. Methods of Teaching Music K–12. (3 cr; A-F only; fall, every year) Objectives, curricula, special methods, materials, and evaluation appropriate for teaching music in K–12.

MusE 4214. Multicultural Music for the K–12 Music Educator. (1 cr; prerequisite #; A-F only; fall, every year) Objectives, curricula, special methods, materials, and evaluation appropriate for teaching multicultural music in K–12.

SciE 4211. Methods of Teaching Science in the Middle and Secondary School. (4 cr; A-F only; fall, every year) Objectives, curricula, special methods, materials, and evaluation appropriate for teaching science in the middle and secondary school.

SscE 4211. Methods of Teaching Social Science in the Middle and Secondary School. (4 cr; A-F only; fall, every year) Objectives, curricula, special methods, materials, and evaluation appropriate for teaching social science in the middle and secondary school.
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 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, or one course in Hum 1xxx-4xxx.
Five courses at 3xxx or above, including at least one Research 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 or D+ may be used to meet the major requirements. Required courses may not be taken S-N unless offered S-N only. A minimum GPA of 2.00 is required in the minor in order to graduate. The GPA includes all, and only, University of Minnesota coursework. Grades of “F” are included in GPA calculation until they are replaced.

Minor Requirements

Minor requirements include a minimum of five courses (20 credits).

Prerequisite courses
Engl 1011—College Writing or equivalent (not included in the 20 credits for the minor)
Engl 1131—Introduction to Literature

Survey courses
Take two or more 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
Take two or more courses from the following, one of which must be 3xxx or 4xxx:
Engl 2xxx
Engl 3xxx
Engl 4xxx
One of the five courses in the minor must have an HDiv designator at 2xxx or above.
Up to 4 credits of coursework with a grade of D or D+ may be used to meet the minor requirements. Required courses may not be taken S-N unless offered S-N only. A minimum GPA of 2.00 is required in the minor in order to graduate. The GPA includes all, and only, University of Minnesota coursework. Grades of “F” are included in GPA calculation until they are replaced.

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 are strongly encouraged to earn an English major. The licensure requirements alone will not yield a major.

Course Descriptions

Engl 1001. Fundamentals of Writing I. (4 cr; completion of both 1001, 1002 meets College Writing requirement; fall, every year)
Intensive practice in the fundamentals of writing. Students learn and apply strategies for generating, organizing, revising, and editing their writing.

Engl 1002. Fundamentals of Writing II. (CW; 4 cr; prereq 1001; spring, every year)
Continuation of Engl 1001. Prepares students for academic writing by continuing coverage of basic writing skills and incorporating coverage of College Writing goals. Engl 1001 and 1002 may be taken in place of College Writing to fulfill the College Writing requirement.

Engl 1011. College Writing. (CW; 4 cr; fall, spring, every year)
Practice in academic writing, with special emphasis on argumentation, reading closely and critically for the purposes of scholarly analysis, responding to and making use of the work of others, and drafting and revising texts.
Divisions & Courses

Engl 1131. Introduction to Literature. (Hum; 4 cr; prereq 1011 or equiv; fall, spring, every year)
Introduction to the study of fiction, poetry, and drama. Emphasis on gaining basic skills of analysis. A prerequisite to advanced courses in English.

Engl 1993. Directed Study. (1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year)
An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.

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

Engl 2012. Introduction to Fiction. (Hum; 4 cr; prereq 1011 or equiv; offered when feasible; fall)
An introduction to critical reading and analysis of fiction (novels and/or short stories).

Engl 2013. Introduction to Drama. (Hum; 4 cr; prereq 1011 or equiv; offered when feasible; fall)
An introduction to critical reading and analysis of dramatic literature.

Engl 2014. Introduction to Popular Literature. (Hum; 4 cr; prereq 1011 or equiv; offered when feasible; fall)
Introduction to popular literature in a variety of styles and forms with emphasis on analysis and context.

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 2041. Introduction to African American Literature. (HDiv; 4 cr; prereq 1011 or equiv; offered when feasible; spring)
Introduction to issues and themes in African American literature and culture, with emphasis on historical and cultural context.

Topics in Writing: Study of a topic or method(s) of writing not normally covered by other English courses.

Engl 2106. Topics in Writing: The Environmental Imagination: Reading and Writing about the Natural World. (Env; 4 cr; prereq 1011 or equiv; fall, spring)
Writing about the environment. Students learn to use the rich possibilities of language to express their responses to nature and convey to others the importance of close contact with the natural world. Readings in poetry and prose, discussion of technique, and experimentation with a variety of styles and literary forms.

Engl 2121. Topics in Writing: Introduction to Creative Writing. (ArtP; 4 cr; prereq 1011 or equiv; fall, every year)
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 2161. Topics in Writing: News Writing and Reporting. (Hum; 4 cr; prereq 1011 or equiv; fall, spring)
Introduction to news writing and reporting skills necessary for print and broadcast journalism.

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

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

Engl 2211. American Literature Survey I. (Hum; 4 cr; prereq 1011 or equiv, 1131; fall, spring)
Study of important texts, canonical and non-canonical, and important periods and movements that define the colonial and U.S. experience up to 1865.

Engl 2212. American Literature Survey II. (Hum; 4 cr; prereq 1011 or equiv, 1131; fall, spring)
Study of selected historical and literary texts in U.S. literature, canonical and non-canonical, from 1865 to the present.

Engl 2311. American Indians of the Great Plains: Victims and Victors. (Hum; 4 cr; =Anth 2311; offered when feasible; summer)
Same as Anth 2311. Government efforts to “civilize” American Indians and Indians’ resistance to these efforts. Course materials address indigenous opposition to the government’s assimilating forces. Travel to important sites of American Indian resistance on the Great Plains. [Continuing Education course]

Engl 2993. Directed Study. (1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year)
An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.

Engl 3001. Advanced Expository Writing. (Hum; 4 cr; prereq #; fall, spring)
Formal training in expository writing, with special attention to the ways that context and audience affect writers’ stylistic choices.

Engl 3005. Understanding Writing: Theories and Practices. (Hum; 4 cr; prereq 1011 or equiv, soph standing, #, coreq IS 3720 for students working in the Writing Room; fall, every year)
Introduction to composition theory: generating, composing, revising, and responding to writing; conventions across disciplines; strategies for teaching and tutoring writing. Weekly short assignments; three formal papers, written and revised in stages; oral presentation of research. Required for first-semester Writing Room staff.

Engl 3012. Advanced Fiction Writing. (ArtP; 4 cr; prereq #; offered when feasible; fall, spring)
For experienced writers. Focus on developing skills and mastering creative and technical elements of writing fiction.

Engl 3014. Advanced Poetry Writing. (ArtP; 4 cr; prereq #; offered when feasible; spring)
For experienced writers. Focus on developing skills and mastering creative and technical elements of writing poetry.

Engl 3015. Writing Poetry for the 21st Century. (ArtP; 4 cr; prereq 1011 or equiv; offered when feasible; spring)
A creative writing class. Practice with the different elements of poetry—sound, rhythm, imagery, voice, line—and exploration of the ways contemporary poets use and transform traditional forms and techniques.

Engl 3021. Grammar and Language. (Hum; 4 cr; fall, every year)
Study of the English language. Historical development and current structure. Includes language variation and change, social history of language, phonology, syntax,
semantics, development of English grammar, prescriptive versus descriptive grammar, and contemporary theories of grammar.

Engl 3032. Creative Nonfiction. (ArtP; 4 cr; prereq 1011 or equiv; offered when feasible; spring) For experienced writers. Focus on understanding and practicing the rhetorical and stylistic choices available to writers of creative nonfiction, especially decisions about structure, pacing, language, style, tone, detail, description, and narrative voice.

Engl 3052. Novels of Charles Dickens. (Hum; 4 cr; prereq 1131, two from 2201, 2202, 2211, 2212; offered when feasible) An overview of Dickens’ novels, with attention to historical contexts and to some critical studies of his work.

Engl 3142. 18th-Century British Fiction. (Hum; 4 cr; prereq 1131, two from 2201, 2202, 2211, 2212; offered when feasible; spring) The origins of the British novel: experiments with the new form, influence of earlier genres, evolution of formal realism. Authors may include Austen, Burney, Fielding, Richardson, and Sterne.

Engl 3151. Writing Revolution. (Hum; 4 cr; prereq 1131, two from 2201, 2202, 2211, 2212; spring) 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, Frenneau, Wheatley, Equiano, Rowson, Brown, Irving, and Child. Focus on the literary construction of national identity and debates about human rights, individualism, and westward colonization.

Engl 3152. 19th-Century British Poetry. (Hum; 4 cr; prereq 1131, two from 2201, 2202, 2211, 2212; spring) 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 redefinition of culture.

Engl 3153. Gothic Literature. (Hum; 4 cr; prereq 1131, two from 2201, 2202, 2211, 2212; fall) 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 3154. 19th-Century British Fiction. (Hum; 4 cr; prereq 1131, two from 2201, 2202, 2211, 2212; offered when feasible) The rise of the novel to respectability and prominence in Britain from the Romantics to the Victorians.

Engl 3155. 20th-Century British Fiction. (Hum; 4 cr; prereq 1131, two from 2201, 2202, 2211, 2212; offered when feasible) Major novelists from the Modernist period and after, focusing on the historical context of the new challenges to literary tradition.

Engl 3156. Modern Irish Literature. (Hum; 4 cr; prereq 1131, two from 2201, 2202, 2211, 2212; spring) 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 3159. Shakespeare. (Hum; 4 cr; prereq 1131, two from 2201, 2202, 2211, 2212; spring, every year) 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 3161. Medieval Literature. (Hum; 4 cr; prereq 1131, two from 2201, 2202, 2211, 2212; fall, spring) Early and later medieval prose, poetry, and drama produced and/or widely read in England from about 700–1500.

Engl 3162. Chaucer. (Hum; 4 cr; prereq 1131, two from 2201, 2202, 2211, 2212; offered when feasible) Concentrating 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).

Engl 3163. Life in a Medieval City: Literature and Culture in York, 700–1500. (Hum; 4 cr; prereq 1131, two from 2201, 2202, 2211, 2212 or #; offered when feasible; summer) Travel to York, England, to study 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. [Continuing Education course]

Engl 3164. Fitzgerald and Hemingway. (Hum; 4 cr; prereq 1131, two from 2201, 2202, 2211, 2212; offered when feasible) Study of selected short stories, essays, and novels of F. Scott Fitzgerald and Ernest Hemingway with attention given to their role in shaping modern American concepts of masculinity, wealth, and what it means to be “American.”

Engl 3166. Postcolonial Literature. (Hum; 4 cr; prereq 1131, two from 2201, 2202, 2211, 2212; offered when feasible) Study of literature that appears as the site of cultural conflict during and after imperial encounters, from the perspectives of both colonizers and colonized peoples. Particular focus on Britain and its former colonies.

Engl 3221. Development of the Novel in the United States. (Hum; 4 cr; prereq 1131, two from 2201, 2202, 2211, 2212; offered when feasible) Study of the development of the American novel in the 19th and 20th centuries.

Engl 3261. Modern British and American Poetry. (Hum; 4 cr; prereq 1131, two from 2201, 2202, 2211, 2212; offered when feasible) A study of the continuities and break with traditions in 20th century poetry. Focus on innovations and experiments in form and theme.

Engl 3262. 20th-Century American Poetry: From Modern to Contemporary. (Hum; 4 cr; prereq 1131, two from 2201, 2202, 2211, 2212; offered when feasible; fall) Study of the radical shifts in poetry and poetics in 20th-century America. Exploration of the ways that poets such as Robert Lowell, Adrienne Rich, Frank O’Hara, Denise Levertov, Allen Ginsberg, James Wright, and Sylvia
Plath broke with modernist conventions and New Critical aesthetics and opened the field for the poetry of the late 20th and early 21st centuries.

**Engl 3281. The Literature of Slavery.** (HDiv; 4 cr; prereq 1131, two from 2201, 2202, 2211, 2212; offered when feasible; fall) Study of fictional and non-fictional writing about chattel slavery in the United States. Readings include 19th-century works written to oppose or support slavery and 20th-century works written to understand slavery and its effects.

**Engl 3301. Multicultural Literature.** (HDiv; 4 cr; prereq 1131, two from 2201, 2202, 2211, 2212; offered when feasible; fall) Examination of literatures by African American, American Indian, Asian American, Chicanx/o, U.S. Latino/a, and other underrepresented peoples.

**Engl 3311. American Indian Literature.** (HDiv; 4 cr; prereq 1131, two from 2201, 2202, 2211, 2212; offered when feasible) Study of American Indian literature written in English. Particular attention given to language, identity, land, and sovereignty.

**Engl 3331. African American Literature.** (HDiv; 4 cr; prereq 1131, two from 2201, 2202, 2211, 2212; offered when feasible) Study of African American literature. Particular attention given to issues of gender, class, power, “passing,” and the racialized body.

**Engl 3411. Critical Approaches to Literature.** (Hum; 4 cr; prereq 1131, two from 2201, 2202, 2211, 2212; fall) 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 3451. Shakespeare’s England.** (Hum; 4 cr; —[Th 3451]; offered when feasible; summer) Same as Th 3451. A study-abroad course in London and Stratford that concentrates on Shakespeare’s plays in performance. Exploration of the relationship between plays as written scripts and the decisions directors and actors make when they stage productions. [Continuing Education course]

**Engl 3501. The American West Revisited.** (Hum; 4 cr; prereq 1131, two from 2201, 2202, 2211, 2212; offered when feasible) A selection of readings that introduces and challenges the concept of the “frontier” as uncivilized land open for acquisition.

**Engl 3993. Directed Study.** (1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year) An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.

**Research Seminar: A research-based study of a literary subject that forms a capstone experience for majors.**

**Engl 4004. Research Seminar: Old English Literature and Language.** (Hum; 4 cr; prereq 1131, two from 2201, 2202, 2211, 2212; #; offered when feasible) 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 4008. Research Seminar: African American Literature, Culture, Politics, 1890–1914.** (HDiv; 4 cr; prereq 1131, two from 2201, 2202, 2211, 2212; #; offered when feasible) 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.

**Engl 4012. Research Seminar: Imagining the Earth.** (Hum; 4 cr; prereq 1131, two from 2201, 2202, 2211, 2212, #; offered when feasible) Study of imaginative writing (poetry and prose) about the earth, and an examination of the ways that language transforms or shapes our perceptions of the natural world. In addition to the primary literary works, students read selections about our understanding of the natural world from science, philosophy, and ecocriticism.

**Engl 4015. Research Seminar: James Joyce.** (Hum; 4 cr; prereq 1131, two from 2201, 2202, 2211, 2212, #; offered when feasible) Joyce’s Dubliners, A Portrait of the Artist as a Young Man, and Ulysses, with attention to the biographical and historical contexts.

**Engl 4016. Research Seminar: Women and the Market in 19th-Century America.** (Hum; 4 cr; prereq 1131, two from 2201, 2202, 2211, 2212, #; offered when feasible) Popular writing by American women in the historical context of industrial expansion, the development of modern conceptions of home and workplace as separate spheres, and the emergence of U.S. consumer culture.

**Engl 4017. Research Seminar: Tricksters—Conjurers in American Indian and African American Literature.** (HDiv; 4 cr; prereq 1131, two from 2201, 2202, 2211, 2212, #; offered when feasible) Study of tricksters and conjurers in American Indian and African American literature, in particular their ability to maintain traditional practices and subvert the dominant culture and imposed cultural norms. Special attention given to cultural and historical contexts and questions of power, identity, cultural difference, and assimilation.

**Engl 4019. Research Seminar: Rewriting Shakespeare for Film and Stage.** (Hum; 4 cr; prereq 1131, two from 2201, 2202, 2211, 2212, #; offered when feasible) Study of plays and films from the Restoration until today that involve a rewriting or revision of a Shakespearean play. Through detailed analysis of these revisions, students explore questions about the authenticity of the Shakespearean “original” and how people from other time periods have appropriated his plays for their own purposes.

**Engl 4021. Research Seminar: British Literature of the Fin de Siecle.** (Hum; 4 cr; prereq 1131, two from 2201, 2202, 2211, 2212, #; offered when feasible) Study of literature at the end of the 19th century in Britain, including such topics as the widening split between “literature” and popular culture, the redefinition of realism, and the crisis of sexuality. Reading includes fiction by Conrad, Haggard, Hardy, Stoker, Wells, and Wilde, as well as recent criticism and historiography.

**Engl 4022. Research Seminar: Rhetoric and Narration.** (Hum; 4 cr; prereq 1131, two from 2201, 2202, 2211, 2212, #; offered when feasible; spring) Study of intersections between rhetoric and literary criticism, theories of narration and authorship as rhetorical acts, and the ethics of fiction; focused...
through discussion of novels from a variety of historical periods and geographical areas.

**Engl 4993. Directed Study.** (1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year)

An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.

**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 courses listed below as well as 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.

**Course Descriptions**

**Arth 1121. Renaissance to Modern Art.** (FA; 4 cr; spring, every year)

Survey of the major works of art of Western Europe and the United States from 1400 to the present.

**Arth 3142. Art of the Italian Renaissance, 1300-1520.** (FA; 4 cr; prereq any 1xxx ArtH course or jr status or #; spring, even years)

A variety of methods (including stylistic, gender, and contextual theories) are used to explore the painting and sculpture of such artists as Giotto, Donatello, Leonardo, Raphael, and Michelangelo.

**Arth 3161. 16th-Century Italian Art.** (FA; 4 cr; prereq any 1xxx ArtH course or jr status or #; fall, odd years)

The stylistic and theoretical differences evidenced in the fascinating trends of Manierism and Venetian Renaissance art.

**Arth 3171. Baroque Art.** (FA; 4 cr; prereq any 1xxx ArtH course or jr status or #; spring, even years)

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 3201. 19th-Century European Art through Post-Impressionism.** (FA; 4 cr; prereq any 1xxx ArtH course or jr status or #; spring, even years)

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 3211. Early Modernist Art: Symbolism to Surrealism.** (FA; 4 cr; prereq any 1xxx ArtH course or jr status or #; fall, odd years)

Survey of the major early modernist 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 3281. Women and Art.** (FA; 4 cr; prereq any 1xxx ArtH course or jr status or #; fall, odd years)

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 3291. Facing the Past: Portraiture and Social History.** (FA; 4 cr; prereq any 1xxx ArtH course or jr status or #; fall, spring)

This seminar examines functions and formats of portraits created primarily in Western Europe between 1400–1800, in order to gain greater insight as to how various social identities (such as that of husband and wife, child, friend, and freak of nature) were visually constructed and verbally interpreted.
**Division Structure and Course Descriptions**

**Econ 3131. Comparative Economic Systems.** (IP; 2 cr; prereq 1111, 1112 or #; offered when feasible; fall, spring)
Comparison of the theory and functioning of the major economic systems of the world; economic reform in capitalist and socialist economies.

**Econ 4121. International Trade Theory.** (SS; 2 cr; prereq 3201 or #; spring, every year)
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 2201. British Literature Survey I.** (Hum; 4 cr; prereq 1011 or equiv, 1131; fall, every year)
Readings in English poetry, prose, and/or drama from the beginnings to the 18th century. Specific authors vary.

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

**Engl 3153. Gothic Literature.** (Hum; 4 cr; prereq 1131, two from 2201, 2202, 2211, 2212; fall)
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 3154. 19th-Century British Fiction.** (Hum; 4 cr; prereq 1131, two from 2201, 2202, 2211, 2212; offered when feasible)
The rise of the novel to respectability and prominence in Britain from the Romantics to the Victorians.

**Engl 3155. 20th-Century British Fiction.** (Hum; 4 cr; prereq 1131, two from 2201, 2202, 2211, 2212; offered when feasible)
Major novelists from the Modernist period and after, focusing on the historical context of the new challenges to literary tradition.

**Engl 3156. Modern Irish Literature.** (Hum; 4 cr; prereq 1131, two from 2201, 2202, 2211, 2212; spring)
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 3159. Shakespeare.** (Hum; 4 cr; prereq 1131, two from 2201, 2202, 2211, 2212; spring, every year)
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)
Concentrating 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).

**Fren 1302. French Cinema.** (IP; 4 cr; =Hum 1302; prereq #; fall, even years)
Same as Hum 1302. The 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, but all papers and some reading/discussion will be in French. Meets Modern requirement in French major.

**Fren 1303. Paris as Text/Image/Sound.** (IP; 4 cr; =Hum 1303; prereq #; offered when feasible; fall, spring)
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. Texts by Balzac, Baudelaire, Hemingway, Stein, and others. Taught in English, but all papers and some reading/discussion will be in French. Meets Modern requirement in French major.

**Fren 1304. French Women Authors in Translation.** (IP; 4 cr; =Hum 1304; prereq #; fall, odd years)
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. Taught in English, but all papers and some reading/discussion will be in French. Meets Modern requirement in French major.

**Fren 3011. Reading and Analysis of Texts.** (Hum; 4 cr; prereq 3001 or #; spring, every year)
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 3022. Early Modern Studies: French Culture I: Medieval and Early Modern France.** (Hist; 4 cr; prereq or coreq 3011 or #; offered when feasible; fall)
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. Meets Early Modern requirement in French major.

**Fren 3023. Early Modern Studies: French Literature I: Medieval and Early Modern France.** (Hum; 4 cr; prereq or coreq 3011 or #; offered when feasible; spring)
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.” Meets Early Modern requirement in French major.

**Fren 3024. Early Modern Studies: French Fairy Tale and the Fantastic.** (Hum; 4 cr; prereq or coreq 3011 or #; spring, odd years)
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. Meets Early Modern requirement in French major.

**Fren 3025. Early Modern Studies: Wonder and the Marvelous.** (Hum; 4 cr; prereq or coreq 3011 or #; spring, even years)
Examination of “le merveilleux” in French literature in medieval and early modern texts. Examples are taken from the work of Marie de France, Rabelais, Ambroise Paré, Descartes, and several baroque dramatists. Meets Early Modern Requirement in French major.
European Studies

Ger 3031. Survey of German Literature and Culture I. (Hum; 4 cr; prereq 3011 or #; fall, every year)
Chronological study of German literature and its cultural background from the early beginnings through the 18th century. Selected representative works are read and analyzed.

Ger 3032. Survey of German Literature and Culture II. (Hum; 4 cr; prereq 3011 or #; spring, every year)
Chronological study of German literature and its cultural background from the 18th century to the 20th century. Selected representative works are read and analyzed.

Ger 3201. Periods: German Classicism. (Hum; 4 cr; prereq 3011, 3102 or #; spring, even years)
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. Modern films and videos of theater performances supplement the readings.

Ger 3202. Periods: German Romanticism. (Hum; 4 cr; prereq 3011, 3102 or #; spring, odd years)
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 3203. Periods: German Modernism. (IP; 4 cr; prereq 3011, 3102 or #; offered when feasible; fall, spring)
Explores the culture of German-speaking countries around the turn of the 20th century (1890–1933) through literature, music, and the visual arts, especially as manifested in Symbolism, Secession (Art Nouveau), Expressionism, Dada, and New Objectivity.

Ger 3501. Women’s Issues in Contemporary German Culture. (IP; 4 cr; =[Hum 3501]; prereq 3011 or #; offered when feasible; spring)
Same as Hum 3501. Focus is on the German women’s movement during the 20th 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. Readings and lectures are in English. Final papers either in German (for German credit) or English (for Humanities credit).

Ger 3601. Studies in German Literature. (Hum; 4 cr; prereq 3011, #; fall, odd years)
Selected readings in German reflecting modern literary trends. The course examines the cultural politics in the evolution 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 3101. Renaissance and Reformation. (Hist; 4 cr; offered when feasible; fall, spring)
Examination of western European history and historiography between 1350 and 1600 with emphasis on cultural “renaissances” and religious “reformations.”

Hist 3102. Early Modern Europe to 1750. (Hist; 4 cr; offered when feasible; fall, spring)
Survey of historical developments in Europe from about 1350 to 1750.

Hist 3103. Medieval Europe. (Hist; 4 cr; offered when feasible; fall, spring)
Survey of historical developments in Europe from about 500 to 1500.

Hist 3104. The Renaissance. (Hist; 4 cr; fall, even years)
Continued history of European and world history from 1350 to 1500.

Hist 3107. The Reformation. (Hist; 4 cr; fall, odd years)
Continued history of European and world history from 1350 to 1500.

Fren 3032. Modern Studies: French Culture II: Modern and Contemporary France. (IP; 4 cr; prereq or coreq 3011 or #; fall, even years)
A study of French culture and history from the French Revolution to the present, and France’s fitful development as a modern, multicultural democracy. Meets Modern requirement in French major.

Fren 3033. Modern Studies: French Literature II: Revolution, Romanticism, Modernity. (Hum; 4 cr; prereq or coreq 3011 or #; spring, odd years)
French literature from the Enlightenment to the present. A chronological survey examines the human condition as shaped by a new awareness of the role of individual agency in shaping history, the creative self, and the unconscious. Meets Modern requirement in French major.

Fren 3034. Francophone Studies: Littérature migrante. (IP; 4 cr; prereq or coreq 3011 or #; spring, even years)
Examination of texts written by people on the move: immigrants, migrants, people in exile. How do their texts move with them? How do these movements challenge national paradigms? Meets Francophone requirement in French major.

Fren 4021. French and Francophone Theater. (Hum; 4 cr; prereq or coreq 3011 or #; fall, even years)
The study of theatrical texts of France and other French-speaking countries, including the history of theater, various theatrical movements, and the political nature of theatrical texts. Some oral interpretation is included.

Fren 4991. Independent Study in French Abroad. (IP; 4 cr; =[Hum 4991]; max 12 cr; prereq 3002 or #; 3022 or 3032 or 3041 recommended; fall, spring)
An independent study designed for study abroad and based on the student’s research interests in French or Francophone language, culture, history, etc. The project is defined in consultation with a French faculty member before the student leaves the United States. The faculty member guides the project via e-mail.

Ger 3401. German Expressionism. (Hum; 4 cr; =[Hum 3401]; offered when feasible; fall)
Same as Hum 3401. Traces the development of New German Cinema, which began in the 1960s, and continues in the post-unification period. Introduction to films by both East and West German directors who define this national cinema; the cultural, political, and economic context of its production; reference to theories and critiques to provide an overview of German film and culture of the period. Film presentations are in German but with English subtitles in most cases. Readings and lectures are in English. Final papers either in German (for German credit) or English (for Humanities credit).

Ger 3402. Weimar Film. (IP; 4 cr; =[Hum 3402]; prereq 3011; offered when feasible; spring)
Same as Hum 3402. 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. Final papers either in German (for German credit) or English (for Humanities credit).
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
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<tbody>
<tr>
<td>Hist 3105. Early Medieval Europe.</td>
<td>(Hist; 4 cr; offered when feasible; fall)</td>
<td>Survey of historical developments in Europe between 500 and 1100.</td>
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<tr>
<td>Hist 3106. Late Medieval Europe.</td>
<td>(Hist; 4 cr; offered when feasible; spring)</td>
<td>Survey of historical developments in Europe between 1100 and 1500.</td>
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<tr>
<td>Hist 3151. Modern Europe.</td>
<td>(Hist; 4 cr; offered when feasible; fall, spring)</td>
<td>History of modern Europe emphasizing political, economic, social, and intellectual developments since 1789.</td>
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<tr>
<td>Hist 3156. Modern German Intellectual History.</td>
<td>(Hist; 4 cr; offered when feasible; fall, spring)</td>
<td>Examination of the German intellectual history since 1815 and the various relationships between ideas and politics that have shaped German state-building, as well as the ways in which those ideas have had other lives in other places.</td>
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<tr>
<td>Hist 3159. Europe's 20th Century.</td>
<td>(IP; 4 cr; fall)</td>
<td>Consideration of Europe’s “age of extremes,” from the convulsions of social change at the beginning of the 1900s through the revolutions and world wars whose long-term effects produced the Europe seen today, with all of its tensions and potential. Use of primary documents, historical interpretations, fiction, and film to examine historical events and the past and present attitudes of Europeans toward them. Major problems in 20th-century European history and how historians approach them.</td>
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<tr>
<td>Hist 3161. The Enlightenment.</td>
<td>(Hist; 4 cr; offered when feasible; fall, spring)</td>
<td>The intellectual ferment of the Enlightenment has been given the credit and the blame for all things modern—from the concept of human rights and the democracies it has engendered to the subversion of those rights in the totalitarian regimes of the 20th century. Exploration of the ideas of the Enlightenment and their political context and attempt to answer the question of how such an important development in human history can be viewed in such contradictory ways.</td>
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<tr>
<td>Hist 3202. Russian Revolution.</td>
<td>(Hist; 4 cr; offered when feasible; fall)</td>
<td>History of the Russian Revolution. Origins, the March and October Revolutions, the Civil War, and beginnings of Communist rule.</td>
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<tr>
<td>Hist 3204. Nazi Germany.</td>
<td>(Hist; 4 cr; offered when feasible; fall, spring)</td>
<td>History of Nazi Germany. Social and political origins, Nazi rule in the 1930s, the “final solution,” World War II, and Germany’s attempt to assess this era in its history.</td>
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<tr>
<td>Hist 3207. The Crusades.</td>
<td>(IP; 4 cr; offered when feasible; fall, spring)</td>
<td>Explores the historical contexts and consequences of the European Crusades between the 11th and 13th centuries, including the perspective of European Jews, Turkish and Arabic Muslims, and Byzantine and Near Eastern Christians.</td>
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<tr>
<td>Hist 3209. Modern Germany.</td>
<td>(Hist; 4 cr; offered when feasible; fall, spring)</td>
<td>Examination of German history from the development of German national ideas through unification and consolidation of the modern German state in 1871 and through its re-unification at the end of the 20th century. Examines one of the most fascinating and tumultuous periods in German and European history, why the attempt to understand the German past has occupied so many historians, and why the debates surrounding that attempt have been so contentious. Sources include writings by established historians of Germany, novels, films, and music.</td>
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<tr>
<td>Hist 3210. Popular Religion, Heresy, and Inquisition in the Middle Ages.</td>
<td>(Hist; 4 cr; offered when feasible; fall, spring)</td>
<td>The history of popular religious belief and practice in medieval Europe and the relationship between heresy, reform, and inquisition. Topics may include pilgrimage, prayer, saints and sacraments; religious roles for lay people and women; new orders and heresies; and the late-medieval growth of inquisitorial activity and administration.</td>
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<tr>
<td>Hist 3211. Modern France.</td>
<td>(Hist; 4 cr; offered when feasible; fall, spring)</td>
<td>Examination of French culture and history from the Revolution (1789) to the present. The ways in which successive governments, from Napoleon’s empire through the Fifth Republic, have come to terms with legacies of the Revolution such as national citizenship, individual rights, and the politicization of women.</td>
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<tr>
<td>Hist 3704. European Women's History, 1600–Present.</td>
<td>(SS; 4 cr; offered when feasible; fall, spring)</td>
<td>Analysis of the history of European women and gender systems as constructed during the Middle Ages (c. 500–1500).</td>
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<tr>
<td>Hist 3706. Women in Early Modern Europe.</td>
<td>(SS; 4 cr; prereq 1101 or 1102 or 1301, WoSt 1101; offered when feasible; fall, spring)</td>
<td>Examination of lives of women in Europe from about 1350 to 1750.</td>
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<tr>
<td>Hist 3708. European Women's History, 1600–Present.</td>
<td>(IP; 4 cr; prereq 1101 or 1102 or 1301, WoSt 1101; offered when feasible; fall, spring)</td>
<td>Examination of the forces that have shaped the lives of European women since 1600 and analysis of how changes in the structures of power and authority—religious, political, social, familial—affected the choices available to them. Students engage critically with the question of what bringing gender to the forefront of the study of European history has to teach them. Students gain an understanding of many of the underpinnings of American society, which has been deeply affected by European patterns of thought about women and their place in the world.</td>
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<tr>
<td>Hum 3041. New German Cinema.</td>
<td>(IP; 4 cr; =Ger 3041); offered when feasible; fall)</td>
<td>Same as Ger 3041. Traces the development of New German Cinema, which began in the 1960s, and continues in the post-unification period. Introduction to films by both East and West German directors who define this national cinema; the cultural, political, and economic context of its production; reference to theories and critiques to provide an overview of German film and culture of the period. Film presentations are in German with English subtitles. Readings and lectures are in English. Final papers are either in German (for German credit) or English (for Humanities credit).</td>
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Study of important exemplary works of Spanish totalitarian regimes. Texts are examined in light of political ideologies of antidemocratic thought, and Marxism, socialism, syndicalism, anarchism, fascism, and role in international peacekeeping or collective security.


Span 3652. Seminar: Literary Minorities in Early Modern Spain. (Hum; 4 cr; prereq 3002, 3101; offered when feasible; fall) Study of the representative literary works written by or about Spanish Jewish and Muslim minorities from the middle ages to the 17th century in light of their respective sociohistorical contexts.

Span 3653. Seminar: María de Zayas: Literary Violence in Golden Age Spain. (Hum; 4 cr; prereq 3002, 3101; offered when feasible; fall) Study of the major works of 17th-century writer María de Zayas y Sotomayor, *The Enchantments of Love* (1637) and *The Disenchantments of Love* (1647), in light of their sociohistorical contexts and the political issues surrounding the formation of literary canons.

Span 3654. Seminar: Sex, Love, and Marriage in Golden Age Spanish Literature. (Hum; 4 cr; prereq 3002, 3101; offered when feasible; fall) The theme of sex, love, and marriage in Golden Age Spanish Literature through prose, poetry, and theatre of the Golden Age (XVI–XVII centuries) in Spain. Consideration of the gender relations and gender politics reflected in the works and the socio-historical context in which these works were produced.

Span 3671. Seminar: Origins of the Spanish Character. (Hum; 4 cr; prereq 3002, 3101; offered when feasible; fall) Analysis of the Medieval and Golden Age roots of many of the beliefs and attitudes of contemporary Spain. Themes common to Spain, explored in both traditional and modern contexts, may include honor, patriotism, religion, idealism, individuality, satire, love, pride, etc.

Span 3672. Seminar: Reform in Spain: The Saint and the Journalist. (Hum; 4 cr; prereq 3002, 3101; offered when feasible; fall) Analyzing, comparing, and contrasting the lives and writings of St. Teresa of Avila (XVI Century) and Mariano José de Larra (XIX Century) as they worked toward a better Spain. Difficulties of religious and cultural reform as well as differences in traditional and enlightenment values are explored.

Span 3681. Seminar: Romanticism and Revolution in 19th-Century Spain. (Hum; 4 cr; prereq 3002, 3101; offered when feasible; fall) Study of representative texts (prose and poetry) from the first half of the 19th century in Spain, with emphasis on the expression of the Romantic vision within the particular political context of the period, marked by tensions between liberal reform and traditional conservatism.

Span 3682. Seminar: Realism and Reform in 19th-Century Spain. (Hum; 4 cr; prereq 3002, 3101; offered when feasible; fall) Study of representative texts (novels, stories, and essays) from the second half of the 19th century in Spain, with emphasis on the rise of realism as an exploration of the sociopolitical reality of the era and the need for reform. The focus is on general trends in Western cultures (eg., industrialization, positivism, secularization).
Span 3683. Seminar: Modernity and Identity in Spain, 1900-1930. (Hum; 4 cr; prereq 3002, 3101; offered when feasible; fall) Study of representative texts (prose and poetry) from the early decades of the 20th century in Spain with particular emphasis on their responses to changes brought by modernity: advancing technology, modern psychology, political experimentation, spiritual exploration, and artistic innovation.

Span 4001. Research Symposium. (Hum; 4 cr; prereq #; A-F only; fall, every year) A capstone experience for majors, consisting of an introduction to research methods and critical approaches to literature, as well as development of an independent research project and presentation.

Spch 3411. Intercultural Communication Theory and Research. (HDiv; 4 cr; prereq 2101 or #; fall, every year) Study of intercultural communication from an interpersonal and group perspective.

Th 3101. World Theatre: History and Literature I. (FA; 4 cr; fall, every 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 3102. World Theatre: History and Literature II. (FA; 4 cr; spring) 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.

**Foreign Languages and Literatures**

(See Chinese [Chn], Education [Ed], French [Fren], German [Ger], Italian [Ital], Interdisciplinary Studies [IS], and Spanish [Span].)

UMM offers majors and minors in French, German, and Spanish. Some beginning courses in Chinese, Dakota, Italian, and Sign Language are also offered. Study of a foreign language, 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.

In addition to organized foreign language programs, UMM offers a variety of other language options. See the individual discipline sections for complete catalog descriptions. Check the Class Schedule for courses to be taught in a specific term. The following are courses that could be offered.

Chn 1001. Beginning Modern Chinese I. (FL; 4 cr; fall, every year)
Chn 1002. Beginning Modern Chinese II. (FL; 4 cr; prereq 1001 or #; spring, every year)
Ed 1011. Beginning Sign Language I. (FL; 3 cr; prereq #; fall, every year)
Ed 1012. Beginning Sign Language II. (FL; 3 cr; prereq 1011; spring, every year)
Ed 2011. Intermediate Sign Language I. (FL; 3 cr; prereq 1012 or #; fall, spring)
Ed 2012. Intermediate Sign Language II. (FL; 3 cr; prereq 2011; fall, spring)
IS 3011. Dakota Language I. (FL; 4 cr; fall, every year)
IS 3021. Dakota Language II. (FL; 4 cr; fall, every year)
Ital 1301. Beginning Italian I. (FL; 4 cr; fall, every year)
Ital 1302. Beginning Italian II. (FL; 4 cr; prereq 1301 or placement or #; spring, every year)
Ital 1311. Modern Italy Through Literature and Film. (Hum; 3 cr; offered when feasible; fall, spring)
Ital 1321. Intermediate Italian I. (IP; 4 cr; prereq 1302 or #; offered when feasible; fall, spring)
Span 2121. Associated Languages: Intensive Portuguese. (IP; 4 cr; prereq 2002 or Fren 2002 or #; offered when feasible)

**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

One course from the Early Modern Studies cluster (marked with an EMS designator in the course title)
One course from the Modern Studies cluster (marked with an MOS designator in the course title), or Fren 1302, Fren 1303 or Fren 1304

One course from the Francophone Studies cluster (marked with an FRS designator in the course title), or Fren 1311

Fren 4901—Senior Seminar

A minimum of 8 additional credits from Fren courses at 3xxx or above

(Students can select elective courses from any clustered or non-clustered courses at the 3xxx level or above.)

Students are strongly encouraged to study abroad, but should also plan to complete a significant amount of coursework in French at UMM. Up to 9 credits for one semester abroad or 16 credits for a year abroad may count towards the French major. Transfer students may apply up to 9 credits from another institution towards the French major. Students who wish to apply both transfer and study abroad credits to the French major must petition the French faculty for approval. Decisions will be made on an individual basis.

Fren 4901 must be taken on campus and the final seminar presentation must be given in French. One cross-listed French course taught in English (such as Fren 1302, 1303, 1304, or 1311) may be counted toward the major, provided that students complete written work for the class in French.

No grades below C- are allowed. Required courses may not be taken S-N unless offered S-N only. A minimum GPA of 2.00 is required in the major in order to graduate. The GPA includes all, and only, University of Minnesota coursework. Grades of “F” are included in GPA calculation until they are replaced.

Students majoring in French are encouraged to take at least one year of instruction in another foreign language. Students may count Fren 4991—Independent Study in French Abroad and Fren 3060—July in Paris: French Language and Culture in Paris II toward the major.

Minors

Fren 2001—Intermediate French I
Fren 2002—Intermediate French II
Fren 3001—Conversation and Composition
Fren 3011—Reading and Analysis of Texts

A minimum of 8 additional credits from Fren courses at 3xxx or above

Students are strongly encouraged to study abroad, and may count 6 credits from study abroad toward their French minor. All courses for the French minor must be taught in French. No grades below C- are allowed. Required courses may not be taken S-N unless offered S-N only. A minimum GPA of 2.00 is required in the minor in order to graduate. The GPA includes all, and only, University of Minnesota coursework. Grades of “F” are included in GPA calculation until they are replaced.

Certificate Program in French

The Certificate Program in French responds to the growing demand for individuals who can communicate successfully in a global environment, and is intended for students whose other academic commitments prevent them from completing either a major or a minor in French. To earn a certificate, a student must:

a) Complete a minimum of 12 credits of college-level coursework in French at UMM beyond the foreign language requirement at the 2xxx or 3xxx level. Performance across three courses will give the faculty a chance to assess the skills and progress of the student.

b) Earn at least a B in each of the three courses (S-N grades will not be accepted for the Certificate)

Four of the 12 credits required for the certificate may be earned through study abroad, such as the UMM July in Paris Program. All courses for the certificate must have a Fren designator. Courses taught in English do not meet the requirements for the certificate program. Students who complete a major or minor in French are not eligible for the certificate program.

A student who has met the above requirements will receive a reference letter from the UMM French faculty certifying completion of the certificate program as well as language competence.

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.
Division Structure and Course Descriptions

Course Descriptions

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

Fren 1002. Beginning French II. (FL; 4 cr; prerequisite 1001 or placement or #; spring, every year)
Continuation of 1001.

Fren 1021. July in Paris: French Language and Culture in Paris I. (FL; 4 cr; summer, every year)
Beginning course for UMM July in Paris Program. Four weeks of intensive beginning French language and culture at the Sorbonne, Paris IV; guided visits to cultural and historical sites. No previous experience of French required. See also Fren 3060: July in Paris: French Language and Culture in Paris II. (Continuing Education course)

Fren 1302. French Cinema. (IP; 4 cr; =Hum 1302); prerequisite #; fall, every years)
Same as Hum 1302. The 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, but all papers and some reading/discussion will be in French. Meets Modern requirement in French major.

Fren 1303. Paris as Text/Image/Sound. (IP; 4 cr; =Hum 1303); prerequisite #; offered when feasible)
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. Texts by Balzac, Baudelaire, Hemingway, Stein, and others. Taught in English, but all papers and some reading/discussion will be in French. Meets Modern requirement in French major.

Fren 1304. French Women Authors in Translation. (IP; 4 cr; =Hum 1304); prerequisite #; fall, odd years)
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. Taught in English, but all papers and some reading/discussion will be in French. Meets Modern requirement in French major.

Fren 2001. Intermediate French I. (IP; 4 cr; =Hum 2001; prerequisite #; 1002 or placement or #; fall, every year)
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 2002. Intermediate French II. (IP; 4 cr; prerequisite 2001 or placement or #; spring, every year)
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 2011. Introduction to French Phonetics. (Hum; 2 cr [max 4 cr]; open to all students of French; course does not count toward FL requirement; fall, spring)
Training in French pronunciation through general and French phonetics geared towards speakers of American English.

Fren 2993. Directed Study. (1–5 cr [max 10 cr]; prerequisite approved directed study form; fall, spring, every year)
An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.

Fren 3001. Conversation and Composition. (IP; 4 cr; prerequisite 3002 or placement or #; fall, every year)
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 3011. Reading and Analysis of Texts. (Hum; 4 cr; prerequisite 3001 or #; spring, every year)
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.

Early Modern Studies: These courses fall within the period from the Middle Ages to the French Revolution. Students gain familiarity with the history, culture, and literature of France from its beginning in feudal society through the Enlightenment and the end of the Ancien Régime.

Fren 3022. Early Modern Studies: French Culture I: Medieval and Early Modern France. (Hist; 4 cr; prerequisite or corequisite 3011 or #; offered when feasible; fall)
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. Meets Early Modern requirement in French major.

Fren 3023. Early Modern Studies: French Literature I: Medieval and Early Modern France. (Hum; 4 cr; prerequisite or corequisite 3011 or #; offered when feasible; spring)
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.” Meets Early Modern requirement in French major.
Fren 3024. Early Modern Studies: French Fairy Tale and the Fantastic. (Hum; 4 cr; prereq or coreq 3011 or #; spring, odd years)
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. Meets Early Modern requirement in French major.

Fren 3025. Early Modern Studies: Wonder and the Marvelous. (Hum; 4 cr; prereq or coreq 3011 or #; spring, even years)
Examination of “le merveilleux” in French literature in medieval and early modern texts. Examples are taken from the work of Marie de France, Rabelais, Ambroise Paré, Descartes, and several baroque dramatists. Meets Early Modern Requirement in French major.

Modern Studies: These courses cover a wide range of historical, literary, and cultural moments and movements that have marked France’s development since 1789, the beginning of the French Revolution.

Fren 3032. Modern Studies: French Culture II: Modern and Contemporary France. (IP; 4 cr; prereq or coreq 3011 or #; fall, even years)
A study of French culture and history from the French Revolution to the present, and France’s fitful development as a modern, multicultural democracy. Meets Modern Requirement in French major.

Fren 3033. Modern Studies: French Literature II: Revolution, Romanticism, Modernity. (Hum; 4 cr; prereq or coreq 3011 or #; spring, odd years)
French literature from the Enlightenment to the present. A chronological survey examines the human condition as shaped by a new awareness of the role of individual agency in shaping history, the creative self, and the unconscious. Meets Modern Requirement in French major.

Fren 3034. Modern Studies: French Poetry and Music. (Hum; 4 cr; prereq or coreq 3011; spring, odd years)
Survey of French poetry and music with emphasis on 19th and 20th century poetry and 20th–21st century music. Studying music enhances understanding of the fundamentals of verse, including rhyme, meter, and sound. Meets Modern Requirement in French major.

Francophone Studies: These courses examine the literature, film, history, and cultures of French-speaking populations living in Africa, North America, the Caribbean, and Asia.

Fren 3041. Francophone Studies: Francophone Worlds. (IP; 4 cr; prereq or coreq 3011 or #; fall)
Readings in a variety of cultural and literary texts from among French-language writers of Africa, the Caribbean, Asia, North America, and Europe; study of issues of national identity, race, gender, and postcolonial consciousness. Meets Francophone requirement in French major.

Fren 3042. Francophone Studies: Contes francophones. (IP; 4 cr; prereq or coreq 3011 or #; spring, even years)
Study of the oral tale in African and Caribbean cultures. Examination of the form of these tales, their thematic structure, and how these tales have been translated into written and/or cinematographic texts. Meets Francophone requirement in French major.

Fren 3043. Francophone Studies: Littérature migrante. (IP; 4 cr; prereq or coreq 3011 or #; spring, even years)
Examination of texts written by people on the move: immigrants, migrants, people in exile. How do their texts move with them? How do these movements challenge national paradigms? Meets Francophone requirement in French major.

Fren 3044. Francophone Studies: L’Amérique francophone. (Hum; 4 cr; prereq or coreq 3011 or #; fall, odd years)
Survey of literary texts and movements in Francophone North America, including Quebec and Louisiana, as well as the history of French exploration of the New World. A discussion of the cultural tensions that have threatened and continue to shape Francophone identity in North America. Meets Francophone requirement in French major.

Fren 3060. July in Paris: French Language and Culture in Paris I. (IP; 4 cr [max 8 cr]; prereq 1002 or equiv; summer, every year)
Advanced coursework for UMM July in Paris Program. Four weeks of intermediate or advanced French language study at the Sorbonne, Paris IV; guided visits to cultural and historical sites. See also Fren 1021: July in Paris: French Language and Culture in Paris I. (Continuing Education course)

Fren 3993. Directed Study. (1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year)
An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.

Fren 4011. Thème et Version. (Hum; 4 cr; prereq or coreq 3011 or #; spring, odd years)
The art of translation applied to everyday discourse, literary texts, and a number of professional fields: journalism, international business, and political, social, and natural sciences with a particular emphasis on specialized vocabularies and advanced grammar and syntax.

Fren 4021. French and Francophone Theater. (Hum; 4 cr; prereq or coreq 3011 or #; fall, even years)
The study of theatrical texts of France and other French-speaking countries, including the history of theater, various theatrical movements, and the political nature of theatrical texts. Some oral interpretation is included.

Fren 4901. Senior Seminar. (4 cr; prereq completion of 32 credits toward the French major; must be taken on campus; spring, every year)
A capstone experience for majors, consisting of a substantial scholarly or creative work (at the undergraduate level) within the discipline. Conducted as a seminar.

Fren 4991. Independent Study in French Abroad. (1–5 cr [max 8 cr]; prereq completion of 32 credits toward the French major; must be taken on campus; spring, every year)
An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.

Fren 4993. Directed Study. (1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year)
An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.
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 2001 satisfies the geography requirement for students seeking secondary school teaching licensure in the social sciences.

Course Descriptions

Geog 2001. Problems in Geography. (Envt; 4 cr; spring, every year)
Basic concepts and questions in the field of geography. The terminology and approaches of geographical inquiry and analysis, with emphasis on the spatial patterns and arrangements of human interaction with the landscape and the production of geographical knowledge.

Geology (Geol)

This discipline is in the Division of Science and Mathematics. Geology 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

Required Courses

Geol 1101—Physical Geology, Sci-L (4 cr)
Geol 2101—Mineralogy and Crystallography, Sci-L (4 cr)
Geol 2111—Igneous and Metamorphic Petrology, Sci-L (4 cr)
Geol 2121—Sedimentology and Stratigraphy, Sci-L (4 cr)
Geol 3101—Structural Geology, Sci-L (4 cr)
Geol 3196—Geology Field Camp, Sci (6 cr)
Geol 4901—Geology Senior Seminar (1 cr)
Geol 4902—Geology Senior Seminar Presentations (1 cr)
Chem 1101—General Chemistry I, Sci-L (4 cr)
Chem 1102—General Chemistry II, Sci-L (4 cr)
Math 1101—Calculus I, M/SR (5 cr)

Elective Courses

Take 10 or more credit(s) from the following:
Geol 2131—Geomorphology, Sci (4 cr)
Geol 2141—Glacial and Quaternary Geology, Sci (4 cr)
Geol 2161—GIS and Remote Sensing, Sci (4 cr)
Geol 3001—Global Tectonics, Sci (4 cr)
Geol 3004—Orogenic Belts, Sci (4 cr)
Geol 3111—Introduction to Invertebrate Paleontology, Sci-L (4 cr)
Geol 3401—Geophysics, Sci (4 cr)
Geol 3411—Advanced Stratigraphy: Subsurface Methods, Sci (4 cr)
Geol 3421—Airphoto Interpretation, Sci (4 cr)
Geol 3501—Hydrology, Sci (4 cr)
Geol 4130—Advanced Geomorphology, Sci (4 cr)
Geol 4140—Advanced Glacial and Quaternary Geology, Sci (4 cr)
Geol 3993—Directed Study (1–5 cr)
or Geol 4993—Directed Study (1–5 cr)

Recommended for graduate studies:
Geol 2151—Historical Geology: Earth History and Changing Scientific Perspectives, Sci-L (4 cr)

Additional Electives

Take 7 or more credit(s) from the following:
Courses must be chosen in consultation with a geology adviser.
Biol 1xxx, 2xxx, 3xxx, 4xxx
Chem 1xxx, 2xxx, 3xxx, 4xxx
CSci 1xxx, 2xxx, 3xxx, 4xxx
Math 1xxx, 2xxx, 3xxx, 4xxx
NSci 1xxx, 2xxx, 3xxx, 4xxx
Phys 1xxx, 2xxx, 3xxx, 4xxx
Stat 1xxx, 2xxx, 3xxx, 4xxx

Up to 8 credits of coursework with a grade of D or D+ may be used to meet the major requirements if offset by an equivalent number of credits of A or B. A minimum GPA of 2.00 is required in the major in order to graduate. The GPA includes all, and only, University of Minnesota coursework. Grades of “F” are included in GPA calculation until they are replaced.

Students intending to pursue graduate studies in the geological sciences should take CSci 1301, Geol 2151, Math 1102, and Phys 1101.

Minor Requirements

Required Courses

Geol 1101—Physical Geology, Sci-L (4 cr)
Geol 2101—Mineralogy and Crystallography, Sci-L (4 cr)
Divisions & Courses

Geol 2111—Igneous and Metamorphic Petrology, Sci-L (4 cr)
Geol 2121—Sedimentology and Stratigraphy, Sci-L (4 cr)
Chem 1101—General Chemistry I, Sci-L (4 cr)
Chem 1102—General Chemistry II, Sci-L (4 cr)

Elective Courses

Take 8 or more credit(s) from the following:
- Geol 2131—Geomorphology, Sci (4 cr)
- Geol 2141—Glacial and Quaternary Geology, Sci (4 cr)
- Geol 2151—Historical Geology: Earth History and Changing Scientific Perspectives, Sci-L (4 cr)
- Geol 2161—GIS and Remote Sensing, Sci (4 cr)
- Geol 3001—General Chemistry I, Sci-L (4 cr)
- Geol 3002—General Chemistry II, Sci-L (4 cr)
- Geol 3101—Structural Geology, Sci-L (4 cr)
- Geol 3111—Introduction to Invertebrate Paleontology, Sci-L (4 cr)
- Geol 3401—Geophysics, Sci (4 cr)
- Geol 3411—Advanced Stratigraphy: Subsurface Methods, Sci (4 cr)
- Geol 3501—Hydrology, Sci (4 cr)
- Geol 4130—Advanced Geomorphology, Sci (4 cr)
- Geol 4140—Advanced Glacial and Quaternary Geology, Sci (4 cr)

Take no more than 3 credit(s) from the following:
- Geol 1993—Directed Study (1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year)
- Geol 2001. Advanced Environmental Geology. (Envt; 4 cr; offered when feasible; spring) introduces 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 2101. Mineralogy and Crystallography. (Sci-L; 4 cr; fall, spring, every year) 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 2101. Environmental Geology: Geology in Daily Life. (Sci; 4 cr; may not count toward the geol major or minor; spring, every year)
- Geol 1001. Geology of the National Parks. (Sci; 4 cr; may not count toward the geol major or minor; fall) 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 1012. Oceanography. (Sci; 4 cr; may not count toward geol major or minor; fall) 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)

Teacher Preparation Requirements

Students pursuing teaching licensure in earth and space science 9–12 should refer to the Education, Secondary (SeEd) section of this catalog.

Course Descriptions

Geol 1001. Environmental Geology: Geology in Daily Life. (Sci; 4 cr; may not count toward the geol major or minor; spring, every year)
- 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 1011. Geology of the National Parks. (Sci; 4 cr; may not count toward the geol major or minor; fall)
- 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 1012. Oceanography. (Sci; 4 cr; may not count toward geol major or minor; fall)
- 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 1101. Physical Geology. (Sci-L; 4 cr; fall, spring, every year)
- 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 1993. Directed Study. (1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year)
- An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.

Geol 2001. Advanced Environmental Geology. (Envt; 4 cr; offered when feasible; spring)
- Examination of the more significant interactions between humans and geologic environments and processes. Earthquake and volcanic hazards, river flooding, mass movements and slope stability, coastal hazards, and water resources and pollution. Lectures and problems sets emphasize the quantitative approaches used to determine the likelihood and frequency of natural hazards, assess associated risks, and mitigate damage.

Geol 2101. Mineralogy and Crystallography. (Sci-L; 4 cr; prereq 1101, Chem 1101 or #; fall, every year)
- 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 2111. Igneous and Metamorphic Petrology. (Sci-L; 4 cr; prereq 2101; spring, every year)
- 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)
Division Structure and Course Descriptions

**Geol 2121. Sedimentology and Stratigraphy.** (Sci-L; 4 cr; prereq 2101; fall, every year) 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 2131. Geomorphology.** (Sci; 4 cr; prereq 1101; spring, odd years) 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 2141. Glacial and Quaternary Geology.** (Sci; 4 cr; prereq 1101; fall, even years) Glaciers, glaciology, glacial deposition, glacial erosion; climatic change and the growth and advance of ice sheets; effect of glaciation on flora and fauna. (3 hrs lect, 3 hrs lab and field trips)

**Geol 2151. Historical Geology: Earth History and Changing Scientific Perspectives.** (Sci-L; 4 cr; spring, every year) 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 2161. GIS and Remote Sensing.** (Sci; 4 cr; prereq 1101 or Biol 1101 or Biol 1111 or #; spring) Introduction to design, development, and application of Geographic Information Systems (GIS); overview of acquisition and utility of satellite data and imagery; emphasis on applications in Earth and environmental sciences; lab component focuses on practical aspects of GIS development and use and involves original semester projects designed and implemented by individual students.

**Geol 2301. Geology of Minnesota.** (Sci-L; 4 cr; offered when feasible; summer) 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; and St. Cloud Quarry Park. [Continuing Education course]

**Geol 2993. Directed Study.** (1-5 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year) An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.

**Geol 3001. Global Tectonics.** (Sci; 4 cr; prereq #; fall, spring) Internal structure and composition of the earth; geometry and motion of lithospheric plates; geological and geophysical processes at plate boundaries; evolution of mountain belts; heat flow, thermal convection, and the driving mechanism for plate movement.

**Geol 3004. Orogenic Belts.** (Sci; 4 cr; prereq 3001 or #; spring, even years) Geodynamics of convergent and collisional tectonism; physical and chemical processes that control global topography; physical, chemical, and temporal evolution of orogenic (mountain) systems; regional comparison of characteristic orogenic belts (Alps, Himalaya, Appalachians, etc.); physical and environmental consequences of mountain building.

**Geol 3101. Structural Geology.** (Sci-L; 4 cr; prereq 2111 or #; spring, every year) 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 3111. Introduction to Invertebrate Paleontology.** (Sci-L; 4 cr; prereq 1121 or #; spring, odd years) 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 2121, 2151, 3101; summer, every year) 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. Only offered during summer at a 6-week residential camp.

**Geol 3401. Geophysics.** (Sci; 4 cr; prereq Math 1101, Phys 1101 or #; fall, odd years) 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 3411. Advanced Stratigraphy: Subsurface Methods.** (Sci; 4 cr; prereq 1101, 2121 or #; spring, odd years) 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 3421. Airphoto Interpretation.** (Sci; 4 cr; prereq 1101 or #; offered when feasible; spring) 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 3501. Hydrology.** (Sci; 4 cr; prereq Math 1101 or #; fall, every year) 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 lect)
Divisions & Courses

Geol 3993. Directed Study. (1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year)
An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.

Geol 4130. Advanced Geomorphology. (Sci; 4 cr [max 8 cr]; prereq 2131; offered when feasible; fall, spring)
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 4140. Advanced Glacial and Quaternary Geology. (Sci; 4 cr [max 8 cr]; prereq 2141; fall, odd years)
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 4901. Geology Senior Seminar. (1 cr; prereq #; required for geol major; fall, every year)
Capstone experience in Geology. Discussion of selected topics of geologic interest.

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

Geol 4993. Directed Study. (1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year)
An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.

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—German Conversation and Composition
Ger 3011—Readings in German
Ger 3101—Survey of German Literature and Culture I
Ger 3102—Survey of German Literature and Culture II

At least one from:
Ger 3201—Periods: German Classicism
Ger 3202—Periods: German Romanticism
Ger 3203—Periods: German Modernism

Three additional elective 3xxx or 4xxx courses (4 credits each) in German, including Hist 3156, 3204, and 3209

No grades below C- are allowed. A minimum GPA of 2.00 is required in the major in order to graduate. The GPA includes all, and only, University of Minnesota coursework. Grades of “F” are included in GPA calculation until they are replaced.

In addition to the requirements for the major, students majoring in German are encouraged to complete at least one year of instruction in another foreign language.

Minor Requirements

Ger 2001—Intermediate German I
Ger 2002—Intermediate German II
Ger 2011—German Conversation and Composition
Ger 3011—Readings in German
Ger 3101—Survey of German Literature and Culture I
Ger 3102—Survey of German Literature and Culture II

Two additional elective 3xxx or 4xxx courses (4 credits each) in German, including Hist 3156, 3204, and 3209

No grades below C- are allowed. A minimum GPA of 2.00 is required in the minor in order to graduate. The GPA includes all, and only, University of Minnesota coursework. Grades of “F” are included in GPA calculation until they are replaced.
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. Language prerequisites vary for individual programs. Internships are available in all of them. Through the Learning Abroad Center, students may also participate in bilateral exchanges to Austria with Karl Franzens University in Graz and with the University of Salzburg.

Course Descriptions

Ger 1001. Beginning German I. [FL; 4 cr; fall, every year]
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 1002. Beginning German II. [FL; 4 cr; prereq 1001 or placement or #; spring, every year]
Continuation of 1001.

Ger 1993. Directed Study. [1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year]
An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.

Ger 2001. Intermediate German I. [IP; 4 cr; prereq 1002 or placement or #; fall, every year]
The skills of listening, reading, and writing are enforced through grammar review and discussion of modern texts.

Ger 2002. Intermediate German II: German Culture and Civilization. [IP; 4 cr; prereq 2001 or #; spring, every year]
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 2011. German Conversation and Composition. [IP; 4 cr; prereq 1002 or #; may enroll concurrently with 2001; fall, every year]
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 2993. Directed Study. [1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year]
An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.

Ger 3001. Readings in German. [IP; 4 cr; prereq 2011 or #; may enroll concurrently with 2002; soph or higher recommended; spring, every year]
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 and the major and minor.

Ger 3001. German Play. [ArtP; 4 cr; prereq 2001 or #; offered when feasible; fall, spring]
Reading, study, and presentation of a short contemporary play. Enhances fluency and familiarity with the modern German idiom.

Ger 3041. New German Cinema. [IP; 4 cr; =Hum 3041; prereq 3011; offered when feasible; fall]
Same as Hum 3041. Traces the development of New German Cinema, which began in the 1960s, and continues in the post-unification period. Introduction to films by both East and West German directors who define this national cinema; the cultural, political, and economic context of its production; reference to theories and critiques to provide an overview of German film and culture of the period. Film presentations are in German with English subtitles. Readings and lectures are in English. Final papers are either in German (for German credit) or English (for Humanities credit).

Ger 3042. Weimar Film. [IP; 4 cr; =Hum 3042; prereq 3011; offered when feasible]
Same as Hum 3042. 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. Final papers either in German (for German credit) or English (for Humanities credit).
Ger 3101. Survey of German Literature and Culture I. (Hum; 4 cr; prereq 3011 or #; fall, every year) Chronological study of German literature and its cultural background from the early beginnings through the 18th century. Selected representative works are read and analyzed.

Ger 3102. Survey of German Literature and Culture II. (Hum; 4 cr; prereq 3011 or #; spring, every year) Chronological study of German literature and its cultural background from the 18th century to the 20th century. Selected representative works are read and analyzed.

Ger 3201. Periods: German Classicism. (Hum; 4 cr; prereq 3101, 3102 or #; spring, even years) 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. Modern films and videos of theater performances supplement the readings.

Ger 3202. Periods: German Romanticism. (Hum; 4 cr; prereq 3101, 3102 or #; spring, odd years) 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 3203. Periods: German Modernism. (IP; 4 cr; prereq 3101, 3102 or #; offered when feasible; fall, spring) Explores the culture of German-speaking countries around the turn of the 20th century (1890–1933) through literature, music, and the visual arts, especially as manifested in Symbolism, Secession (Art Nouveau), Expressionism, Dada, and New Objectivity.

Ger 3501. Women’s Issues in Contemporary German Culture. (IP; 4 cr; =Hum 3501; prereq 3011 or #; offered when feasible; spring) Same as Hum 3501. Focus is on the German women’s movement during the 20th 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. Readings and lectures are in English. Final papers either in German (for German credit) or English (for Humanities credit).

Ger 3601. Studies in German Literature. (Hum; 4 cr; prereq 3011, #; fall, odd years) Selected readings in German reflecting modern literary trends. The course examines the cultural politics in the evolution 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 3611. Austrian Studies. (Hum; 4 cr; prereq 3011 or #; fall, even years) 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/or Rudolph von Habsburg, the modern musical Elisabeth, as well as the operetta Die Fledermaus and Iván Szabó’s film Oberst Redl.

Ger 3993. Directed Study. (1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year) An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.

Ger 4901. Senior Project. (1–5 cr [max 10 cr]; prereq 3011 or #; fall, spring, every year) A substantial scholarly or creative work (at the undergraduate level) in conjunction with or upon the completion of another course within the discipline. The senior project is recommended for German majors.

Ger 4993. Directed Study. (1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year) An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.

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.
- discuss ways in which the student perceives history and historical questions as a result of thinking about history at UMM.
- 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
No grades below C- are allowed. A minimum GPA of 2.00 is required in the major in order to graduate. The GPA includes all, and only, University of Minnesota course work. Grades of “F” are included in GPA calculation until they are replaced.

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.
No grades below C- are allowed. A minimum GPA of 2.00 is required in the minor in order to graduate. The GPA includes all, and only, University of Minnesota course work. Grades of “F” are included in GPA calculation until they are replaced.

Course Descriptions
Hist 1101. Introduction to World History to 1500. (Hist; 4 cr; fall, every year)
Methods, themes, and problems in study of world history to 1500.
Hist 1102. Introduction to World History Since 1500. (Hist; 4 cr; spring, every year)
Methods, themes, and problems in the study of world history since 1500.
Hist 1101. Introduction to U.S. History. (Hist; 4 cr; fall, every year)
Methods, themes, and problems in the study of the history of the United States.
Hist 1402. Women in U.S. History. (HDiv; 4 cr; offered when feasible; fall, spring)
Themes and methods in the history of women in the United States. Topics may include women in the colonial era; American Indian, African American, and immigrant women; sex roles; women and work, family, politics, the law, and religion.
Hist 1501. Introduction to East Asian History: China, Japan, and Korea before 1800. (IP; 4 cr; offered when feasible; fall)
Examination of the social, political, economic, technological, and cultural changes in East Asia before 1800. Possible sub-themes include the rise of the Confucian world order, the spread of Buddhism, and East Asian interactions with the outside world. Discussion of changing perceptions of gender.
Hist 1601. Latin American History: A Basic Introduction. (IP; 4 cr; spring)
Methods, themes, and problems in the study of Latin American history.

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

Hist 3004. Africa to 1700. (Hist; 4 cr; offered when feasible; fall, spring)
History of Africa to 1700.
Hist 3005. Africa Since 1700. (Hist; 4 cr; offered when feasible; fall, spring)
History of Africa since 1700.
Hist 3008. The Making of the Islamic World, 500–1500. (HDiv; 4 cr; offered when feasible; fall, spring)
Examines the origins, spread, and impact of Islamic civilization from the 6th through 15th centuries with particular emphasis upon political, religious, and intellectual developments.
Hist 3009. Microhistory. (Hist; 4 cr; spring; odd years)
An in-depth historical examination of one or more locales and their relationship to broader historical phenomena.

Courses numbered 310x to 311x consider topics in the political, social, intellectual, religious, and/or economic history of Europe before 1750.
Hist 3101. Renaissance and Reformation. (Hist; 4 cr; offered when feasible; fall, spring)
Examination of early European European history and historiography between 1350 and 1600 with emphasis on cultural “renaissances” and religious “reformations.”
Hist 3102. Early Modern Europe to 1750. (Hist; 4 cr; offered when feasible; fall, spring)
Survey of historical developments in Europe from about 1350 to 1750.
Hist 3103. Medieval Europe. (Hist; 4 cr; offered when feasible; fall, spring)
Survey of historical developments in Europe from about 500 to 1500.
Hist 3105. Early Medieval Europe. (Hist; 4 cr; offered when feasible; fall)
Survey of historical developments in Europe between 500 and 1100.
Hist 3106. Late Medieval Europe. (Hist; 4 cr; offered when feasible; spring)
Survey of historical developments in Europe between 1100 and 1500.

Courses numbered 315x to 316x consider topics in the political, social, intellectual, religious, and/or economic history of Europe since 1750.
Hist 3151. Modern Europe. (Hist; 4 cr; offered when feasible; fall, spring)
History of modern Europe emphasizing political, economic, social, and intellectual developments since 1789.
Hist 3156. Modern German Intellectual History. (Hist; 4 cr; offered when feasible; fall, spring)
Many of the most influential ideas of the 19th and 20th centuries emerged from the German-speaking world and it is worth considering how and why that happened. Examination of the German intellectual history since 1815 and the various relationships between ideas and politics that have shaped German state-building, as well as the ways in which those ideas have had other lives in other places.
Hist 3159. Europe’s 20th Century. (IP; 4 cr; fall)
Consideration of Europe’s “age of extremes,” from the convulsions of social change at the beginning of the
1900s through the revolutions and world wars whose long-term effects produced the Europe seen today, with all of its tensions and potential. Use of primary documents, historical interpretations, fiction, and film to examine historical events and the past and present attitudes of Europeans toward them. Major problems in 20th-century European history and how historians approach them.

**Hist 3161. The Enlightenment.** (Hist; 4 cr; offered when feasible; fall, spring)
The intellectual ferment of the Enlightenment has been given the credit and the blame for all things modern—from the concept of human rights and the democracies it has engendered to the subversion of those rights in the totalitarian regimes of the 20th century. Exploration of the ideas of the Enlightenment and their political context and attempt to answer the question of how such an important development in human history can be viewed in such contradictory ways.

**Courses numbered 320x to 321x consider topics in the political, social, intellectual, religious, and/or economic history of selected European nations.**

**Hist 3202. Russian Revolution.** (Hist; 4 cr; offered when feasible; fall)
History of the Russian Revolution. Origins, the March and October Revolutions, the Civil War, and beginnings of Communist rule.

**Hist 3204. Nazi Germany.** (Hist; 4 cr; offered when feasible; fall, spring)
History of Nazi Germany. Social and political origins, Nazi rule in the 1930s, the “final solution,” World War II, and Germany’s attempt to assess this era in its history.

**Hist 3207. The Crusades.** (IP; 4 cr; offered when feasible; fall, spring)
Explores the historical contexts and consequences of the European Crusades between the 11th and 13th centuries, including the perspective of European Jews, Turkish and Arabic Muslims, and Byzantine and Near Eastern Christians.

**Hist 3209. Modern Germany.** (Hist; 4 cr; offered when feasible; fall, spring)
Examination of German history from the development of German national ideas through unification and consolidation of the modern German state in 1871 and through its re-unification at the end of the 20th century. Examines one of the most fascinating and tumultuous periods in German and European history, why the attempt to understand the German past has occupied so many historians, and why the debates surrounding that attempt have been so contentious. Sources include writings by established historians of Germany, novels, films, and music.

**Hist 3210. Popular Religion, Heresy, and Inquisition in the Middle Ages.** (Hist; 4 cr; offered when feasible; fall, spring)
The history of popular religious belief and practice in medieval Europe and the relationship between heresy, reform, and inquisition. Topics may include pilgrimage, prayer, saints and sacraments; religious roles for laypeople and women; new orders and heresies; and the late-medieval growth of inquisitorial activity and administration.

**Hist 3211. Modern France.** (Hist; 4 cr; offered when feasible; fall, spring)
Examination of French culture and history from the Revolution (1789) to the present. The ways in which successive governments, from Napoleon’s empire through the Fifth Republic, have come to terms with legacies of the Revolution such as national citizenship, individual rights, and the politicization of women.

**Hist 3251. American Indians and the United States: A History.** (HDiv; 4 cr; spring, every year)
The experience of the original Americans and their interaction with later immigrants.

**Courses numbered 330x to 331x consider topics in the political, social, intellectual, religious, and/or economic history of North America or the United States before 1865.**

**Hist 3301. Red, White, and Black: Race/Culture in Early America.** (HDiv; 4 cr; fall, every year)
History of race in early America. Exploration of the coming together of three groups of peoples—Africans, American Indians, and Europeans—and the roles which they played in the emergence of the “first new nation.”

**Hist 3302. African American History to 1865.** (HDiv; 4 cr; offered when feasible; fall, spring)
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 3303. Creation of the American Republic.** (Hist; 4 cr; offered when feasible; fall, spring)
Examination of the history of the United States from the beginning of the Seven Years’ War in 1754 to the end of the War of 1812. The origins of the nation and the political, cultural, and social changes that accompanied the birth and early years of the American Republic. Focus on the political and social history of the American Revolution. Other topics include women in revolutionary America, the retrenchment of slavery, indigenous people and early Indian policy, religion and revivalism, the constitutional crisis, and the early presidencies.

**Courses numbered 335x to 336x consider topics in the political, social, intellectual, religious, and/or economic history of the United States since 1865.**

**Hist 3351. The U.S. Presidency Since 1900.** (SS; 4 cr; spring, odd years)

**Hist 3352. The U.S. 1960s.** (Hist; 4 cr; offered when feasible; fall, spring)
History of the United States in the 1960s. Backgrounds to the 1960s; political and cultural issues of the decade; the Kennedy promise, civil rights and other movements, Vietnam war, counterculture, conservative backlash, and legacy.
Hist 3353. World War II. (Hist; 4 cr; offered when feasible; fall, spring) Origins, political and military aspects of the war in Europe and Asia, domestic mobilization, the Holocaust and Atomic Bomb, aftermath.


Hist 3356. Civil Rights Movement, 1954–1974. (Hist; 4 cr; offered when feasible; fall, spring) Background of the Civil Rights movement, emergence of the theory and practice of nonviolence, various Civil Rights groups, role of women, legislative and other accomplishments of the movement, its aftermath and influence.

Hist 3357. African American History Since 1865. (HDiv; 4 cr; offered when feasible; fall, spring) 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; spring, even years) Origin, context, and significance of the Civil War and Reconstruction.

Hist 3359. Native Strategies for Survival, 1880–1920. (HDiv; 4 cr; fall, every year) Exploration of the events and policies that sought to eliminate American Indian communities and cultures and the strategies that American Indians developed to survive. Students gain insight into a pivotal time for the “incorporation” of the U.S. and ongoing tensions between unity and diversity that characterize the nation’s political economy and social structure. Paradoxes under scrutiny include the degree to which policies claiming to emancipate actually imprisoned and prisons became homelands.

Courses numbered 345x to 346x consider topics and themes in U.S. history that transcend traditional chronological categories.

Hist 3451. Facing West. (HDiv; 4 cr; spring, odd years) History of the American West. What is the West to the United States? Examination of the meaning of the West as both place and process for U.S. history; exploring the distinctive role that the West has played in the development of the U.S. from 1790 to the 21st century. Special emphasis on the interplay between different peoples in the vast and varied region.

Hist 3452. Minnesota History. (Hist; 4 cr; offered when feasible; fall, spring) Examination of the social, cultural, and political history of Minnesota with emphases on American Indian and European-American conflict, immigration and ethnicity, the development of political culture, and the changing nature of regional identity.

Hist 3453. The American Presidency, 1789–1900. (Hist; 4 cr; offered when feasible; fall, spring) Growth and development of the U.S. presidency during its first century. Emphasis on selected presidencies such as those of George Washington, Thomas Jefferson, Andrew Jackson, James K. Polk, Abraham Lincoln, and William McKinley.

Hist 3455. American Immigration. (Hist; 4 cr; offered when feasible; fall, spring) The role of voluntary migration in U.S. history from the late 18th century to the present. Emphases on settlement, ethnicity, nativism, transnational issues, and immigration law. Possible topics include European immigrants and “whiteness,” restriction of immigration from Asia, ethnicity and U.S. foreign and military policy, and the varieties of immigration, legal and undocumented, since 1965.

Hist 3456. History of Religion in America. (Hist; 4 cr; offered when feasible; fall, spring) The history of religion in American life from the perspective of ordinary Americans. Religious diversity receives special emphasis. Topics may include New England witchcraft, the First and Second Great Awakenings, American Indian belief systems, nativism and Anti-Catholicism, religion and politics, immigrant religion and new fundamentalist movements.

Hist 3457. American Biography and Autobiography. (Hist; 4 cr; offered when feasible; fall, spring) 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; fall, spring) Introduction to methods and approaches to public history, drawing from the West Central Historical Research Center and UMM archives.

Hist 3459. Lewis and Clark: An American Odyssey. (Hist; 4 cr; offered when feasible; fall, spring) The journey of Meriwether Lewis and William Clark and the men under their command has long been considered the quintessential American adventure and an audacious exercise in individual courage. What was the object of the Corps of Discovery’s journey? Why does this journey remain such a compelling story almost two centuries after it concluded? [Continuing Education course]

Hist 3462. A History of Rural America. (Hist; 4 cr; offered when feasible; fall, spring) The history of the United States from the beginning of European settlement to the present. Primary focus is on average people—farmers and townsfolk—and the impact of economic change on social and political life. Special attention to the varied response of different groups of rural Americans, e.g., immigrants, women, African Americans, to changes within American agriculture. Includes a research component.

Courses numbered 355x to 356x consider topics in the political, social, intellectual, religious, and/or economic history of selected Asian nations.

Hist 3551. Modern Japan. (Hist; 4 cr; fall, odd years) The history of Japan from the foundation of the Tokugawa Shogunate until the present. Special attention to issues of gender, nationalism, and modernity.

Hist 3552. History of Modern China. (Hist; 4 cr; offered when feasible; spring) Study of the history of China from the foundation of the Qing dynasty in the 1600s until the present. Special attention to issues of gender, nationalism, and modernity.
Courses numbered 370x to 371x consider topics in the political, economic, social, intellectual, religious, and/or economic history of Latin America.

Hist 3701. Great Books in Latin American History. (IP; 4 cr; fall, every year)
A look at Latin American history through great books.

Hist 3704. Women in the Middle Ages. (SS; 4 cr; offered when feasible; fall, spring)
Analysis of the history of European women and gender systems as constructed during the Middle Ages (c. 500–1500).

Hist 3705. Women in Early Modern Europe. (SS; 4 cr; prereq 1101 or 1102 or 1301, WoSt 1101; offered when feasible; fall, spring)
Examination of lives of women in Europe from about 1350 to 1750.

Hist 3706. Gender in East Asia. (HDiv; 4 cr; spring, odd years)
Study of the changing perceptions of gender in East Asia from its earliest written records until the present. Special emphasis on the changing role of women in East Asia. Exploration of the way gendered discourse affected broader understandings of society, politics, the economy, and culture. Background in East Asian history, while preferred, is not required.

Hist 3707. Aztec Culture and History. (IP; 4 cr; offered when feasible; fall, spring)
A survey of Aztec culture and history. The art and architecture, religion, language, and literature of the Aztecs in historical perspective, from their origins into the Spanish colonial period.

Hist 3708. The Cuban Revolution in Historical Perspective. (Hist; 4 cr; spring, every year)
A survey of modern Cuban history with an emphasis on the Cuban Revolution. An introduction to a wide variety of perspectives.

Hist 3709. Women in Latin American History. (IP; 4 cr; fall, spring)
The history of the women of Latin America from neolithic times to the present. Special attention to evolving historical understandings of gender and technology.

Hist 3706. U.S. Occupation and Japanese Transwar History, 1930-1970. (IP; 4 cr; offered when feasible; fall, spring)
Examination of Japan’s transformation from pre-World War II authoritarian state (1937–1945) to postwar liberal democracy (1953–1970). Adoption of a “transwar” approach to both periods.

Courses numbered 360x to 361x consider topics in the political, economic, social, intellectual, religious, and/or economic history of Latin America.

Hist 3607. Aztec Culture and History. (IP; 4 cr; offered when feasible; fall, spring)
A survey of Aztec culture and history. The art and architecture, religion, language, and literature of the Aztecs in historical perspective, from their origins into the Spanish colonial period.

Hist 3608. The Cuban Revolution in Historical Perspective. (Hist; 4 cr; spring, every year)
A survey of modern Cuban history with an emphasis on the Cuban Revolution. An introduction to a wide variety of perspectives.

Hist 3609. Women in Latin American History. (IP; 4 cr; fall, spring)
The history of the women of Latin America from neolithic times to the present. Special attention to evolving historical understandings of gender and technology.

Hist 3610. U.S. Occupation and Japanese Transwar History, 1930-1970. (IP; 4 cr; offered when feasible; fall, spring)
Examination of Japan’s transformation from pre-World War II authoritarian state (1937–1945) to postwar liberal democracy (1953–1970). Adoption of a “transwar” approach to both periods.

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

Hum 1002. Norse Saga. (Hum; 4 cr; offered when feasible)
Study of medieval sagas, in translation, from Iceland and Norway, and the culture that produced them.

Hum 1003. The King James Bible. (Hum; 4 cr; offered when feasible)
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 1005. Myth and Literature. (Hum; 4 cr; offered when feasible)
How classical mythology has been used in literature, poetry, drama, and fiction.
Hum 1051. Greek Drama. (Hum; 4 cr; offered when feasible; spring) Study of Greek drama.

Hum 1054. Backgrounds to Literature: Classical Mythology. (IP; 4 cr; offered when feasible) A look at primary texts in Greek and Roman myth and at the ways English and American writers have made use of those myths from the Renaissance to the present.

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

Hum 1104. Major Works of Italian Literature in Translation from the Middle Ages to the Present. (Hum; 3 cr; offered when feasible) Survey of Italian literature from the Middle Ages to the present. Attention given to major works of narrative, poetry, and drama of various periods. This course is conducted in English. [Continuing Education course]

Hum 1105. Italian Cinema. (IP; 3 cr; offered when feasible) Study of Italian cinema from the silent era to the present, focusing on significant genres and directors, as well as on critical approaches to film studies. Taught in English; all films have English subtitles. [Continuing Education course]

Hum 1302. French Cinema. (IP; 4 cr; = [Fren 1302]; fall, even years) Same as Fren 1302. The history of filmmaking in France from the Lumière brothers to the present; introduction to major trends in film theory. Taught in English, all films have English subtitles. Students who wish to apply this course to their French major must enroll in the French equivalent of this course, Fren 1302.

Hum 1303. Paris as Text/Image/Sound. (IP; 4 cr; = [Fren 1303]; offered when feasible) Same as Fren 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. Students who wish to apply this course to their French major must enroll in the French equivalent of this course, Fren 1303.

Hum 1304. French Women Authors in Translation. (IP; 4 cr; = [Fren 1304]; fall, odd years) Same as Fren 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. Students who wish to apply this course to their French major must enroll in the French equivalent of this course, Fren 1304.

Hum 1311. West African Francophone Cinema. (IP; 4 cr; = [Fren 1311]; fall, odd years) 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 must enroll in the French equivalent of this course, Fren 1311.

Hum 1312. Morocco: History, Story, Myth. (IP; 4 cr; = [Fren 1312]; Prereq-#; offered when feasible; summer) Same as Fren 1312. Study of the ways that history, myth, and storytelling intertwine to create Moroccan identity.

Hum 1352. Literature and History of Jewish and Muslim Spain. (IP; 4 cr; offered when feasible; summer) Introduction to representative works of literature (taught in English and translated from Spanish, Hebrew, and Arabic) written by or about Spanish Jews and Muslims from the middle ages to the periods of the expulsion of these people from Spain (Jews in 1492 and Muslims in 1609). Comprehension of these works in light of their sociohistorical contexts. [Continuing Education course]

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

Hum 1571. Contemporary Latin American Women Writers. (IP; 4 cr; offered when feasible; spring) Literature of Latin America. The form of the cinema and its specific cultural and political context.

Hum 1593. Directed Study. (1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year) An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.

Hum 2011. On War: History, Ethics, and Representations of Modern Warfare. (Hum; 4 cr; prereq Engli 1011 or equiv; offered when feasible; fall) Explores accounts of several 20th-century American wars. Includes a wide range of course materials (film, journalistic accounts, philosophical essays, and literary texts) and perspectives on war—from the generals to the “grunts” and nurses, from American and non-American perspectives, and from scholarship to oral narratives.

Hum 2993. Directed Study. (1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year) An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.

Hum 3041. New German Cinema. (IP; 4 cr; = [Ger 3041]; offered when feasible; fall) Same as Ger 3041. Traces the development of New German Cinema, which began in the 1960s, and continues in the post-unification period. Introduction to films by both East and West German directors who define this national cinema; the cultural, political, and economic context of its production; reference to theories and critiques to provide an overview of German film and culture of the period. Film presentations are in German.
with English subtitles. Readings and lectures are in English. Final papers are either in German (for German credit) or English (for Humanities credit).

**Hum 3042. Weimar Film.** (IP; 4 cr; =Ger 3042; offered when feasible)
Same as Ger 3042. Development of the German film as expressionist 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. Final papers either in German (for German credit) or English (for Humanities credit).

**Hum 3051. Russian Literature.** (Hum; 4 cr; offered when feasible; spring)
Study of Russian literature in translation. Special attention to the works of Dostoyevsky, Tolstoy, and Chekhov.

**Hum 3501. Women's Issues in Contemporary German Culture.** (IP; 4 cr; =Ger 3501; offered when feasible; spring)
Same as Ger 3501. Focus is on the German women’s movement during the 20th 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. Readings and lectures are in English. Final papers either in German (for German credit) or English (for Humanities credit).

**Hum 3993. Directed Study.** (1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year)
An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.

**Hum 4993. Directed Study.** (1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year)
An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.

## 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 chairs 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 on the academic affairs Web site) 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 an interdisciplinary studies directed study or an internship.

## Course Descriptions

**IS 1001. First-Year Seminar: Human Diversity.** (FYS; 2 cr; fall, every year)
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. Includes an evening convocation in early September and an all-day Jamboree on Thursday during the 12th or 13th week of the term.

**IS 1036. The Re-Emerging Threat of Infectious Disease.** (2 cr; prereq admission to Summer Scholars Program; S-N only; summer, every year)
Exploration of infectious disease from a variety of topics ranging from the basic biology of pathogens (bacteria, viruses, protozoa, and prions) to the social cost of disease on a global scale. Other topics include immunology, antibiotic and vaccine development, epidemiology and public health. Laboratory component focusing on microbiological techniques and epidemiological modeling. [Continuing Education course]

**IS 1038. Talking About a Revolution: Dissent and Freedom of Expression in Today’s World.** (E/CR; 2 cr; prereq admission to Summer Scholars Program; S-N only; summer, every year)
Examination of the evolution and current nature of dissent and free expression in the United States. Analysis of forms of dissent, legal definitions, acceptable or protected dissent, governmental response to dissent, and the impact of forces such as geography, language, and technology on dissent. Emphasis on the way contexts (national, legal, historical) shape expression and responses to it. [Continuing Education course]

**IS 1041. Health Sciences Terminology.** (2 cr; fall, spring, every year)
A self-study course that has been 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. [Continuing Education course]

**IS 1051. Introduction to College Learning Skills.** (4 cr; prereq participation in Gateway Program or #; counts toward the 60-cr general ed requirements; S-N or Aud, summer, every year)
Essential skills for success in higher education. Introduction to computing technology, writing, and math skills. Academic and social skills needed for transition from high school to college.

**IS 1061. Learning to Learn.** (SS; 2 cr; prereq #: S-N only; fall, spring, every year)
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 1071. Systematic Introduction to the Art and Science of Emergency Medical Care. (4 cr; prereq registration with the Stevens County Ambulance Services; arrangements must be made by contacting them at 320-589-7421; S-N only; fall, spring, every year) 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 1091. Ethical and Social Implications of Technology. (E/CR: 2 cr; fall, spring, every year) Description of appropriate technological advances. Historical development related to technology and its development cycle. Discussion of the ethical and social implications of technology.

IS 1301. Dakota Language I. (FL; 4 cr; fall, every year) An introduction to speaking, writing, and reading Dakota language and an overview of Dakota culture. [Continuing Education course]

IS 1302. Dakota Language II. (FL; 4 cr; prereq 1301 or #; spring, every year) A continuation of 1301 with greater emphasis on conversation and culture. [Continuing Education course]

IS 1321. Study-Travel Programs Emphasizing Diversity. (1 cr [max 2 cr; offered when feasible; summer]) Short-term study/travel programs based upon the theme of human diversity. Locations vary, but emphasis is on travel to domestic or international sites that offer unique perspectives and direct contact with environments significantly different from the Midwest (in geography, ethnicity, history, culture, and values). [Continuing Education course]

IS 1331. Disability in America: Politics, Art, and Culture(s). (Hum; 4 cr; offered when feasible; fall, spring) Examination of the history of the Disability Rights Movement, the social stigma and stereotypes that have hindered the lives of disabled Americans, and the formation of a disabled identity and its expression in literature and the arts. [Continuing Education course]

IS 1341. Introduction to World Religions. (HDIV; 3 cr; offered when feasible; fall, spring) Examination of historic and contemporary world religions. Focus on eight religions (Hinduism, Buddhism, Confucianism, Taoism, Shintoism, Judaism, Christianity, Islam) and their component elements of creed, cult, code, community, and canon. Exploration of other religious traditions including Native American, African, goddess, earth-based, and New Age. [Continuing Education course]

IS 1993. Directed Study. (1–5 cr [max 10 cr; prereq approved directed study form; fall, spring, every year]) An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.

IS 2001H. Honors: Traditions in Human Thought. (Hum; 2 cr; prereq participation in the Honors Program or #; fall, every year) 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 2011. English Language Teaching Assistant Program. (IP; 6-13 cr [max 13 cr; =IS 3011]; S-N only; fall, spring, summer, every year) Students assist teachers of English in countries where English is not the primary language. [Continuing Education course]

IS 2035. Aging in Greece: Comparative Cultural Practices and Social Policy. (IP; 4 cr; offered when feasible; summer) International service-learning course in Athens and the island of Ikaria that explores cross-cultural differences between Greece and the United States in the meaning and experience of aging, as well as in the social and institutional supports for the aging population. Focus on the role of the community and public sector in promoting optimal aging. [Continuing Education course]

IS 2036. Chinese Language and Culture. (IP; 4 cr; offered when feasible; summer) A study abroad program providing an introduction to the rich history and culture of China and the Mandarin language. For students with advanced language skills, higher level language instruction is available. Evaluation is based on course work at Capital Normal University in Beijing as well as participation in group discussions and programs. [Continuing Education course]

IS 2037. China: Traditions and Transformations. (IP; 4 cr; offered when feasible; summer) Introduction to the rich history and culture of China. Investigation of changes in China due to recent economic development. Consideration of the impact of this development on other countries and on their lifestyle through exploration of international connections with China. A study abroad course. Required monthly meetings for six months prior to class departure. [Continuing Education course]

IS 2993. Directed Study. (1–5 cr [max 10 cr; prereq approved directed study form; fall, spring, every year]) An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.

IS 3011. English Language Teaching Assistant Program for Majors. (IP; 6-13 cr [max 13 cr; =IS 2011]; prereq jr status, #; S-N only; fall, spring, summer, every year) Students assist teachers of English in countries where English is not the primary language. [Continuing Education course]

IS 3035. Aging in Greece: Comparative Cultural Practices and Social Policy. (IP; 4 cr; offered when feasible; summer) International service-learning course in Athens and the island of Ikaria that explores cross-cultural differences between Greece and the United States in the meaning and experience of aging, as well as in the social and institutional supports for the aging population. Focus on the role of the community and public sector in promoting optimal aging. [Continuing Education course]

IS 3051. Cultural and Choral Performance Tour of the British Isles. (IP; 4 cr; S-N only; offered when feasible; summer) A cultural and choral tour of the United Kingdom. Introduction to the society and culture of the United Kingdom through readings, written assignments, lectures, and guided tours that demonstrate the diversity of Great Britain. Students present choral performances in such
settings as public buildings, schools, churches, museums, galleries, and parks. [Continuing Education course]

IS 3110. Rural Community Field Project: Center for Small Towns. (SS; 1-6 cr [max 6 cr]; prereq #: SS [if taken for 2 or more cr]; S-N only; offered when feasible; fall, spring)

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. [Continuing Education course]

IS 3111H. 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; spring)

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 3122. Leadership in Today’s World. (E/CR; 4 cr; prereq soph status or #: counts as an elective cr for Human Resource track in Mgmt; offered when feasible; summer)

Examination of leadership theories along with an overview of best practices in organizational administration and leadership. Course requirements include an internship or alternative practicum experience. [Continuing Education course]

IS 3203H. Honors: A Cross-Section of the Enlightenment. (Hist; 2 cr; prereq participation in Honors Program or #: offered when feasible; fall, spring)

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 3204H. Honors: Ecological Health and the Sustainability of Common-Property Resources. (Env; 2 cr; prereq participation in Honors Program or #: offered when feasible; fall, spring)

Exploration of “sustainability” from the perspective of economics and ecology. Examples might include ocean fisheries, the rain forest, the introduction of alien species, and the global climate.

IS 3205H. Honors: The Early Modern Body in Literature, Philosophy, and Science. (Hum; 2 cr; prereq participation in Honors Program or #: offered when feasible; fall, spring)

Examination of the medical, philosophical, and literary treatment of the human body in early modern Europe. Readings from both primary and secondary sources.

IS 3206H. Honors: Introduction to Game Theory. (M/SR; 2 cr; prereq participation in the Honors Program, high school higher algebra or #: offered when feasible; fall, spring)

Introduction to the formal theory of strategic interaction and to the intuitions behind the theory. Applications to a selection of problems in the natural and social sciences, such as biological evolution, tacit collusion in pricing, strategic behavior in international relations, and strategy in legislative voting.

IS 3207H. Honors: Utopia(s). (Hum; 2 cr; prereq participation in Honors Program or #: offered when feasible; fall)

The concept of utopia from an interdisciplinary and cross-cultural perspective, drawing from various traditions including literature, the visual arts, and the social sciences. Expertise of guest lecturers in these diverse areas included.

IS 3208H. Honors: Totalitarianism: Imagination, Theory, and Experience. (SS; 2 cr; prereq participation in Honors Program or #: offered when feasible; spring)

The concept of totalitarianism as it has been theorized, analyzed, and written about in fiction and personal accounts. The approach is cross-cultural and interdisciplinary, and considers the evolution of the concept and experience of totalitarianism over the course of the 20th century.

IS 3209H. Honors: Apocalypse Now? The Science and Policy of Preparing for a Catastrophe. (Env; 2 cr; prereq participation in Honors Program or #: offered when feasible; fall, spring)

Popular visions, policy response, and scientific underpinnings of potentially catastrophic societal problems past and present. Do we worry about the right things? How do scientists, politicians, and purveyors of popular culture assess which threats warrant attention? (two 50-min lect/disc plus multiple evening film screenings)

IS 3211H. Honors: Republic or Empire? The American 1890s. (Hist; 2 cr; prereq participation in the Honors Program or #: offered when feasible; fall, spring)

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 3212H. Honors: Global Encounters and the Making of the Contemporary World, 1450 to the Present. (HDv; 2-4 cr [max 4 cr]; prereq high school higher algebra, participation in Honors Program or instr consent; offered when feasible; spring)

An exploration of the initial interaction among the indigenous people of Africa and the Americas with the people of Europe. Parallel immediate and long-term effects of these initial encounters are identified and discussed.

IS 3221H. Honors: Open Source vs. Proprietary Technology: The Economics of Networks and Innovation. (SS; 2 cr; prereq participation in Honors Program or #: spring)

An exploration of the technological, legal, and economic factors shaping the evolution of knowledge networks, with particular reference to the open-source model of software development and its competitors.

IS 3231H. Honors: Drama, Philosophy, and Politics in Classical Greece. (Hum; 2 cr; prereq participation in Honors Program or #: fall, spring)

Examination of political and philosophical theories found in Plato and Aristotle as revealed in the dramatic works of Aeschylus and Euripides, among others.

IS 3705. Peer Tutoring Theory. (SS; 3 cr; prereq #: fall, every year)

Topics in pedagogical theory regarding peer tutoring processes. Practice in peer tutoring.

IS 3710. Peer Tutoring in College. (1 cr [max 3 cr]; prereq 3705; fall, every year)

Tutor students in selected courses.
Division Structure and Course Descriptions

IS 3720. Tutoring Writing Across the Disciplines. (1 cr [max 6 cr]; prereq Engl 1011 or equiv, soph standing, #, coreq Engl 3005 for students in their first sem at the Writing Room; fall, spring, every year) Tutor student writers at the Writing Room; meet regularly with other tutors for ongoing training in peer writing tutoring.

IS 3800. Practicum in Social Sciences. (1-2 cr [max 4 cr]; prereq #: S-N only; fall, spring, every year) Supervised experience of selected learning activities such as discussion group leader, lab assistant, research assistant, or other teaching-related activities.

IS 3810. Practicum in the Humanities. (1-2 cr [max 4 cr]; prereq #: S-N only; fall, spring, every year) Supervised experience of selected learning activities such as discussion group leader, test review leader, research assistant, or other teaching-related activities.

IS 3893. Prior Learning Directed Study. (1-4 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year) 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 [max 32 cr]; prereq approved internship form; S-N only; fall, spring, every year) An educational experience in a work environment providing field application for the student’s theoretical classroom learning experiences. The prior learning internship, such as in social service or business settings, 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 3993. Directed Study. (1-5 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year) An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.

IS 3996. Interdisciplinary Internship. (1-16 cr [max 32 cr]; prereq approved internship form; S-N only; fall, spring, every year) 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.

IS 4101. Intro to Prof Conduct, Legal Constraints, Ethics in Human Services. (E/CR: 2 cr; prereq jr, 10 cr 3xxx or 4xxx human services courses or #: fall, spring, every year) 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 4993. Directed Study. (1-5 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year) An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.

IS 4994H. Senior Honors Project. (1-4 cr [max 8 cr]; prereq approved Honors project form, participation in Honors Program; fall, spring, every year) A substantial scholarly or creative interdisciplinary work designed by the student working cooperatively with a project adviser. Upon completion, the project is defended before a panel of faculty from different disciplines. Successful completion of the senior honors project is one of the requirements for graduating from UMM “with honors.”

Italian (Ital)

This discipline is in the Division of the Humanities. The Italian discipline introduces students to the study of the language, literature, and culture of Italy. The courses satisfy foreign language and other general education requirements.

Objectives—The Italian discipline is designed to help students develop a number of skills in Italian, including comprehension and speaking, reading, and writing, in order to communicate effectively in Italian on a broad range of topics. The courses are designed to help students develop critical insight into the philosophy and values of another culture as they increase their competence in a second language.

Study Abroad

In light of today’s increasingly interdependent world, the UMM Italian discipline 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

Ital 1301. Beginning Italian I. (FL; 4 cr; fall, every year) Introduction to Italian as it is presently spoken and written. Basic sounds, structures, and vocabulary of Italian. Understanding, reading, and writing the language and communicating in Italian about everyday situations. Relationship between culture and language. [Continuing Education course]

Ital 1302. Beginning Italian II. (FL; 4 cr; prereq 1301 or placement or #: spring, every year) Continuation of 1301. [Continuing Education course]


Ital 1311. Modern Italy Through Literature and Film. (Hum; 3 cr; offered when feasible; fall, spring)
Examination of the political, social, and cultural transformations of Italy from its unification in the second half of the 19th century to contemporary issues of immigration and multiculturalism as reflected in literature and film. Topics include the unification and forging a new national identity; life under Fascism; the Resistance and post-war period; the “southern question;” the “economic miracle” of the 1960s; recent immigration and current cultural transformations. [Continuing Education course]

Ital 1321. Intermediate Italian I. (IP; 4 cr; prereq 1302 or #; offered when feasible; fall, spring)
Continued development of listening, reading, writing, and speaking skills; review of the fundamental elements of the Italian language. Emphasis on authentic cultural and literary texts appropriate to this level. [Continuing Education course]

Ital 1331. The Eternal City: The Language and Culture of Rome I. (FL; 4 cr; offered when feasible; summer)
Beginning course for UMM study abroad in Rome, Italy. Four weeks of Italian language together with the art and literature of Rome. Emphasis on works of art, literature, and film belonging to several periods and addressing the history and character of the city. Excursions to relevant sites in and near Rome. No previous experience in Italian required. [Continuing Education course]

Ital 1993. Directed Study. (1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, summer, every year)
An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.

Ital 2993. Directed Study. (1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, summer, every year)
An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.

Ital 3331. The Eternal City: The Language and Culture of Rome II. (IP; 4 cr; prereq 1302 or equiv; offered when feasible; summer)
Advanced course for UMM study abroad in Rome, Italy. Four weeks of Italian language together with the art and literature of Rome. Emphasis on works of art, literature, and film belonging to several periods and addressing the history and character of the city. Excursions to relevant sites in and near Rome. [Continuing Education course]

Ital 3993. Directed Study. (1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, summer, every year)
An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.

Ital 4993. Directed Study. (1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, summer, every year)
An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.

Latin American Area Studies (LAAS)

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 Latin American Area Studies. Students must enroll through the LAAS coordinator.

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—Bibliographical Tools and Journals in Latin American Area Studies.
Hist 3601—Great Books in Latin American History
1–4 credits in LAAS 4101—Senior Tutorial in Latin American Area Studies taken together with Hist 3601.
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. Courses and directed studies not listed below may be approved by the LAAS coordinator, provided the subject matter is appropriate for the major. 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.

No grades below C- are allowed. A minimum GPA of 2.00 is required in the major in order to graduate. The GPA includes all, and only, University of Minnesota course work. Grades of “F” are included in GPA calculation until they are replaced.

Course Descriptions

Anth 3601. Social Change and Development in Latin America.
(IP; 4 cr; =[Soc 3601]; prereq 1111 or Soc 1101 or #; spring, every year)
Same as Soc 3601. 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.
Divisions & Courses

Anh 3602. Women in Latin America. (IP; 4 cr; = [Soc 3602]; prereq 1111 or Soc 1101 or #; fall, odd years)
Same as Soc 3602. Study of the 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, economic and political conditions, religion and women, etc.

Engl 3301. Multicultural Literature. (HDiv; 4 cr; prereq 1131, two from 2201, 2202, 2211, 2212; offered when feasible; fall)
Examination of literatures by African American, American Indian, Asian American, Chicana/o, U.S. Latino/a, and other under-represented peoples.

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

Hist 3601. Great Books in Latin American History. (IP; 4 cr; fall, every year)
A look at Latin American history through great books.

Hist 3608. The Cuban Revolution in Historical Perspective. (Hist; 4 cr; spring, every year)
A survey of modern Cuban history with an emphasis on the Cuban Revolution. An introduction to a wide variety of perspectives.

LAAS 1311. Salvador da Bahia, Brazil: Exploring Its African Identity. (IP; 2 cr; = [Span 1311]; offered when feasible; spring)
Same as Span 1311. Focus on how Afro-Brazilian cultural identity is created and maintained in the face of globalization and immigration in Salvador da Bahia, a city in northeastern Brazil that embraces a vigorous and invigorating ethnic and cultural diversity. [Continuing Education course]

LAAS 1993. Directed Study. (1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year)
An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.

LAAS 2993. Directed Study. (1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year)
An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.

LAAS 3100. Contemporary Latin America. (1 cr [max 4 cr]; prereq LAAS major; to be repeated each sem a student is in residence; only 4 cr may apply to LAAS major; fall, spring, every year)
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; fall, spring)
For the student new to the major. Introduction to the standard bibliographical tools and journals in Latin American area studies.

LAAS 3993. Directed Study. (1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year)
An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.

LAAS 4101. Senior Tutorial in Latin American Area Studies. (1–4 cr [max 4 cr]; prereq 3201, sr LAAS major; offered when feasible; fall, spring)
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 4993. Directed Study. (1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year)
An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.

Pol 3504. Latin American Politics. (IP; 4 cr; prereq 1301 or #; spring)
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.

Soc 3601. Social Change and Development in Latin America. (IP; 4 cr; = [Anh 3601]; prereq 1101 or Anh 1111 or #; spring, every year)
Same as Anh 3601. 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.

Soc 3602. Women in Latin America. (IP; 4 cr; = [Anh 3602]; prereq 1101 or Anh 1111 or #; fall, odd years)
Same as Anh 3602. Study of the 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, economic and political conditions, religion and women, etc.

Span 1001. Beginning Spanish I. (FL; 4 cr; fall, summer, every year)
Development of basic skills of Spanish (reading, speaking, writing, listening) and an introduction to the cultural contexts of Latin America and Spain.

Span 1002. Beginning Spanish II. (FL; 4 cr; prereq 1001 or placement or #; fall, spring, summer, every year)
Continuation of the sequence beginning with 1001.

Span 2001. Intermediate Spanish I. (IP; 4 cr; prereq 1002 or placement or #; fall, every year)
Review and building of the four basic skills in Spanish with emphasis on critical reading skills and writing for communication.

Span 2002. Intermediate Spanish II. (IP; 4 cr; prereq 2001 or placement or #; spring, every year)
Continuation of the sequence beginning with 2001.

Span 2121. Associated Languages: Intensive Portuguese. (IP; 4 cr; prereq 2002 or Fren 2002 or #; offered when feasible)
Intensive, accelerated study of the basic skills of Brazilian Portuguese (reading, writing, listening, and speaking) with emphasis on oral competency.

Span 3001. Spanish Composition and Conversation I. (IP; 4 cr; prereq 2002 or #; fall, every year)
Further review of the four skills in Spanish, with emphasis on: 1) development of greater competence and confidence in conversational Spanish; 2) greater precision
and sophistication in written communication; and 3) analytical proficiency in reading selections from diverse literary and cultural contexts.

Span 3002. Spanish Composition and Conversation II. (IP; 4 cr; prereq 3001; spring, every year)
Continuation of the sequence beginning with 3001.

Span 3101. Introduction to Hispanic Literature. (Hum; 4 cr; prereq 3001; prereq or coreq 3002 for majors; spring, every year)
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 3211. Literature and Culture of Latin America. (Hum; 4 cr; prereq 3002, 3101; fall)
Study of important exemplary works of Latin American literary and cultural production through major historical periods. Texts are examined in light of multiple contexts, such as artistic, political, historical, and philosophical.

Span 3212. Literature and Culture of Spain. (Hum; 4 cr; prereq 3002, 3101; fall)
Study of important exemplary works of Spanish (peninsular) literary and cultural production through major historical periods. Texts are examined in light of multiple contexts, such as artistic, political, historical, and philosophical.

Span 3601. Seminar: Reality Born on Paper in Colonial Latin America. (Hum; 4 cr; prereq 3002, 3101; offered when feasible; fall)
Analysis of the multiple roles of writing during the conquest, the colonial period, and the era of independence and nation-building, as well as its vital importance in the shaping of Latin American “identity” and in the perception of the people and geography of the region.

Span 3602. Seminar: Contemporary. (Re-)Visions of Colonial Latin America. (Hum; 4 cr; prereq 3002, 3101; offered when feasible; fall)
Study of the re-reading and re-writing of the Conquest and Colonial periods in Latin America, focusing on how these periods are approached, or fictionally reversed, by contemporary authors. Readings include narrative, poetry, and theater written during the 20th century, but based on or inspired by colonial texts.

Span 3621. Seminar: Confessions and Letters in Latin American Fiction. (Hum; 4 cr; prereq 3002, 3101; offered when feasible; spring)
Study of confessions and letters in Latin American fiction. Fiction is seen as a combination of texts within other texts. The combination becomes part of the fictional game which imitates and enhances reality.

Span 3622. Seminar: Exile and Emigration in Latin American Fiction. (IP; 4 cr; prereq 3002, 3101; offered when feasible; fall)
Study of contemporary Latin American literary texts where characters face forms of exile, abandonment, and displacement as a result of emigration to Europe and the United States.

Span 3623. Seminar: Ecology and Nature in Latin American Literature. (Envt; 4 cr; prereq 3002, 3101; offered when feasible; fall)
Study of Latin American texts where authors create characters that read or misread Nature and its preservation or extinction. How globalization is making this issue more relevant in the Latin American context.

Span 3651. Seminar: Miguel de Cervantes Saavedra’s El ingenioso hidalgo Don Quijote de la Mancha. (Hum; 4 cr; prereq 3002, 3101; offered when feasible; fall)
Study of Miguel de Cervantes Saavedra’s novel El ingenioso hidalgo Don Quijote de la Mancha in light of its sociohistorical context.

Span 3652. Seminar: Literary Minorities in Early Modern Spain. (Hum; 4 cr; prereq 3002, 3101; offered when feasible; fall)
Study of the representative literary works written by or about Spanish Jewish and Muslim minorities from the middle ages to the 17th century in light of their respective sociohistorical contexts.

Span 3653. Seminar: María de Zayas: Literary Violence in Golden Age Spain. (Hum; 4 cr; prereq 3002, 3101; offered when feasible; fall)
Study of the major works of 17th-century writer María de Zayas y Sotomayor, The Enchantments of Love (1637) and The Disenchantments of Love (1647), in light of their sociohistorical contexts and the political issues surrounding the formation of literary canons.

Span 3654. Seminar: Sex, Love, and Marriage in Golden Age Spanish Literature. (Hum; 4 cr; prereq 3002, 3101; offered when feasible; fall)
The theme of sex, love, and marriage in Golden Age Spanish Literature through prose, poetry, and theatre of the Golden Age (XVI–XVII centuries) Spain. Consideration of the gender relations and gender politics reflected in the works and the sociohistorical context in which these works were produced.

Span 3671. Seminar: Origins of the Spanish Character. (Hum; 4 cr; prereq 3002, 3101; offered when feasible; fall)
Analysis of the Medieval and Golden Age roots of many of the beliefs and attitudes of contemporary Spain. Themes common to Spain, explored in both traditional and modern contexts, may include honor, patriotism, religion, idealism, individuality, satire, love, pride, etc.

Span 3672. Seminar: Reform in Spain: The Saint and the Journalist. (Hum; 4 cr; prereq 3002, 3101; offered when feasible; fall)
Analyzing, comparing, and contrasting the lives and writings of St. Teresa of Avila (XVI Century) and Mariano José de Larra (XIX Century) as they worked toward a better Spain. Difficulties of religious and cultural reform as well as differences in traditional and enlightenment values are explored.

Span 3681. Seminar: Romanticism and Revolution in 19th-Century Spain. (Hum; 4 cr; prereq 3002, 3101; offered when feasible; fall)
Study of representative texts (prose and poetry) from the first half of the 19th century in Spain, with emphasis on the expression of the Romantic vision within the particular political context of the period, marked by tensions between liberal reform and traditional conservatism.

Span 3682. Seminar: Realism and Reform in 19th-Century Spain. (Hum; 4 cr; prereq 3002, 3101; offered when feasible; fall)
Study of representative texts (novels, stories, and essays) from the second half of the 19th century in Spain, with
emphasis on the rise of realism as an exploration of the sociopolitical reality of the era and the need for reform. The focus is on general trends in Western cultures (eg., industrialization, positivism, secularization).

**Span 3683. Seminar: Modernity and Identity in Spain, 1900–1930.** (Hum; 4 cr; prereq 3002, 3101; offered when feasible; fall) Study of representative texts (prose and poetry) from the early decades of the 20th century in Spain with particular emphasis on their responses to changes brought by modernity: advancing technology, modern psychology, political experimentation, spiritual exploration, and artistic innovation.

**Span 4001. Research Symposium.** (Hum; 4 cr; prereq #; A-F only; fall, every year) A capstone experience for majors, consisting of an introduction to research methods and critical approaches to literature, as well as development of an independent research project and presentation.

**Spch 3411. Intercultural Communication Theory and Research.** (HDiv; 4 cr; prereq 2101 or #; fall, every year) 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, criminal justice, 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**
- **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 courses such as:

- **Econ 1111—Principles of Microeconomics**
- **Econ 1112—Principles of Macroeconomics**
- **Mgmt/Psy 3513—Negotiation**
- **Pol 3201—Legislative Process**
- **Pol 3262—Minorities and Public Policy**
- **Psy 3521—Health Psychology**
- **Psy 3701—Organizational Behavior**
- **Soc 2101—Prejudice, Discrimination, and Systems of Oppression**
- **Soc 3121—Sociology of Gender**
- **Spch 3421—Organizational Communication Theory and Research**

*For careers in counseling or in other direct helping professions working with adults, students should take courses such as:*

- **Psy 3051—The Psychology of Women and Gender**
- **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 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**
- **Soc 3122—Sociology of Childhoods**
If with the chemically dependent:

Ps 1081—Drugs and Human Behavior
A directed study or empirical research course on chemical dependency

Students intending to seek careers related to criminal justice should take courses such as:

Pol 3231—Constitutional Law: Civil Liberties and Civil Rights
Pol 3262—Minorities and Public Policy
Pol 4221—Judicial Politics
Phil 3131—Philosophy of Law
Ps 1081—Drugs and Human Behavior
Ps 3112—Cognition
Ps 3302—Personality
Ps 3313—Psychopathology
Ps 3402—Developmental Psychology II: Adolescence
Ps 3501—Social Psychology
Ps 3502—Psychology and Law
Soc 2101—Systems of Oppression
Soc 3121—Sociology of Gender
Soc 3141—Sociology of Deviance

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 (Ps 4896—Field Experiences in Psychology). Students who plan to enroll in Ps 4101—Helping Relationships should complete the course before their internship or field experience.

No grades below C- are allowed. A minimum GPA of 2.00 is required in the major in order to graduate. The GPA includes all, and only, University of Minnesota course work. Grades of “F” are included in GPA calculation until they are replaced.

The 40 credits required for the LAHS major are to be selected from the courses listed below. Courses and directed studies not listed below that a student and an LAHS adviser agree are appropriate for the student’s program of study may be approved toward completion of the major.

Course Descriptions

Anth 2101. Physical Anthropology. (Sci-L; 4 cr; A-F only; fall, every year)
Prehistoric human life and culture. Processes of human evolution. The fossil record linking anatomically modern humans with our earliest hominoid ancestors. Human and other primate evolution and genetics. Includes a 90-minute lab session to be scheduled.

Anth 2501. Medical Anthropology—An Overview. (SS; 4 cr; prereq 1111 or Soc 1101 or #; spring, even years)
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 3101. The Anthropology of Religion. (SS; 4 cr; prereq 1111 or Soc 1101 or #; 4 addtl cr in Anth or Soc recommended; fall, every year)
Comparative study of religion, magic, witchcraft, etc., in various parts of world. Theories and concepts developed by anthropologists in dealing with religious phenomena in a cross-cultural perspective.

Anth 3202. Culture and Biology. (Envt; 4 cr; prereq 1111 or Soc 1101 or #; spring, every year)
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 3301. India and South Asia. (IP; 4 cr; prereq 1111 or Soc 1101 or #; spring, every year)
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 3402. American Indian Ethnography. (HDiv; 4 cr; prereq 1111 or Soc 1101; fall, every years)
An analysis of ethnographic and ethnohistoric materials focusing on specific American Indian cultures.

Anth 3451. Contemporary American Indians. (HDiv; 4 cr; =Soc 3451; prereq 1111 or Soc 1101 or #; fall, odd years)
Same as Soc 3451. The cultures of contemporary Indian tribes in the United States. Government policies, gaming, urban populations, education, self-determination, and identity.

Anth 3452. American Indian Women. (HDiv; 4 cr; =Soc 3452; prereq 1111 or Soc 1101 or #; fall, every year)
Same as Soc 3452. 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 3601. Social Change and Development in Latin America. (IP; 4 cr; =Soc 3601; prereq 1111 or Soc 1101 or #; spring, every year)
Same as Soc 3601. 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 3602. Women in Latin America. (IP; 4 cr; =Soc 3602; prereq 1111 or Soc 1101 or #; fall, odd years)
Same as Soc 3602. Study of the 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, economic and political conditions, religion and women, etc.

Econ 1111. Principles of Microeconomics. (SS; 4 cr; prereq high school algebra or #; fall, spring, every year)
Division Structure and Course Descriptions

Econ 1112. Principles of Macroeconomics. (SS; 4 cr; prereq high school algebra or #; fall, spring, every year) 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 3201. Microeconomic Theory. (SS; 4 cr; prereq 1111, Math 1101 or #; fall, every year) 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 3202. Macroeconomic Theory. (SS; 4 cr; prereq 1112, Math 1101 or #; spring, every year) The theory of national income determination; inflation, unemployment, and economic growth in alternative models of the national economy.

Hist 3704. Women in the Middle Ages. (SS; 4 cr; offered when feasible; fall, spring) Analysis of the history of European women and gender systems as constructed during the Middle Ages (c. 500–1500).

Hist 3706. Women in Early Modern Europe. (SS; 4 cr; prereq 1101 or 1102 or 1301, WoSt 1101; offered when feasible; fall, spring) Examination of lives of women in Europe from about 1350 to 1750.

IS 4101. Intro to Professional Conduct, Legal Constraints, Ethics in Human Services. (E/CR; 2 cr; prereq jr, 10 cr 3xxx or 4xxx human services courses or #; fall, spring, every year) 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 3151. Human Resources Management. (E/CR; 2 cr; prereq 2101 or #; spring, every year) An introduction to the functional areas of human resource management through the use of case studies. Topics include legal issues, planning, recruitment, training, evaluation, compensation, and benefits.

Mgmt 3513. Negotiation. (SS; 4 cr; =Psy 3513; prereq 3221 or Psy 3501 or Psy/Mgmt 3701; spring, every year) Same as Psy 3513. Examines the theoretical and applied aspects of negotiation. Topics include negotiation theory, strategy, skills and tactics, communication processes, global negotiation, and ethics. Use of negotiation simulations.

Mgmt 3701. Organizational Behavior. (SS; 4 cr; =Psy 3701; prereq jr or #; fall, spring) 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 3201. Legislative Process. (SS; 4 cr; prereq 1201 or #; Stat 1601 or Stat 2601 recommended; fall, every year) 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 3262. Minorities and Public Policy. (HDiv; 4 cr; prereq 1201 or #; fall, every year) Analysis of the ways race, ethnicity, and other factors shape political engagement; their implications for public policy and the policy process.

Pol 3263. Political Psychology. (SS; 4 cr; prereq 1201; Psy 1051 or # recommended; fall, odd years) 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 4221. Judicial Politics. (SS; 4 cr; prereq 1201 or #; Stat 1601 or Stat 2601 recommended; fall, odd years) 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 4264. American Political Culture. (Hist; 4 cr; prereq 1201 or #; spring, odd years) 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 1061. Introduction to the Development of the Child and Adolescent. (SS; 4 cr; prereq 1051 or #; spring, every year) 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 1071. Human Sexuality. (SS; 4 cr; fall, every year) 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 child birth; contraception and disease prevention; sexual coercion and abuse; sexual dysfunctions and their treatment.

Psy 1081. Drugs and Human Behavior. (SS; 2 cr; spring, every year) Survey of psychoactive drugs, their effects on mind and behavior, and prevention and treatment of drug abuse.

Psy 3051. The Psychology of Women and Gender. (HDiv; 4 cr; prereq 1051 or #; spring, every year) Exploration of the interactive biological, psychological, and socio-cultural processes that shape the lives of women and the experience of gender. Topics include: the psychobiology of sex; the social construction of sex and gender; socialization and development; media representations; identity and sexuality; language and communication; motivation and personality; relationships; work and family lives; mental and physical
Psy 3101. Learning Theory and Behavior Modification. (SS; 4 cr; prereq 2001 or #; fall, every year)
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 3112. Cognition. (SS; 4 cr; prereq 2001 or #; spring, every year)
Empirical study of memory, language behaviors, representation of knowledge, judgment, decision making, problem solving, and creative thinking. Includes lab.

Psy 3211. Biological Psychology. (Sci-L; 5 cr; prereq [1051, 2001] or Biol 1101 or Biol 1111; fall, every year)
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 3221. Behavioral Biology of Women. (Sci; 2 cr; prereq 3211 or Biol 2111 or #; offered when feasible; fall, spring)
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 3302. Personality. (SS; 4 cr; prereq 1051, Stat 1601 or Stat 2601 or #; spring, every year)
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 3313. Psychopathology. (SS; 4 cr; prereq 3302, Stat 1601 or Stat 2601; spring, every year)
Psychological disorders and their treatment, including anxiety, personality, affective, schizophrenic, and other recognized disorders of children and adults.

Psy 3401. Developmental Psychology I: Child Psychology. (SS; 4 cr; prereq 1051 or #; fall, every year)
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 3402. Developmental Psychology II: Adolescence. (SS; 2 cr; prereq 1051 or #; spring, every year)
Theory, data, and research in adolescent development with emphasis on physical, cognitive, and social development.

Psy 3403. Developmental Psychology III: Adulthood, Aging, and Death. (E/CR; 4 cr; prereq 1051 or #; fall, every year)
An overview of current concepts, theories, and methods in the study of adult development and aging. Provides students with an applied-learning experience through a service learning component. Theoretical and methodological content is integrated with service learning, involving approximately one hour per week of work outside the classroom. Focus is on individual biological and social-psychological development, but also incorporates historical, sociological, and anthropological perspectives where appropriate.

Psy 3501. Social Psychology. (SS; 4 cr; prereq 1051 or Soc 1101 or #; fall, every year)
Theories and research in the study of interpersonal behavior. Topics include aggression, prejudice, altruism, persuasion, group dynamics, and social influence.

Psy 3502. Psychology and Law. (SS; 2 cr; prereq 3501; spring, odd years)
A psychological perspective to the law and to the legal system. Topics include jury decision making, forensic psychology, and trial processes.

Psy 3513. Negotiation. (SS; 4 cr; =Mgmt 3713; prereq 3501 or Mgmt 3221 or Psy/Mgmt 3701; spring, every year)
Same as Mgmt 3513. Examines the theoretical and applied aspects of negotiation. Topics include negotiation theory, strategy, skills and tactics, communication processes, global negotiation, and ethics. Use of negotiation simulations.

Psy 3521. Health Psychology. (SS; 4 cr; prereq 1051; spring, every year)
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; =Mgmt 3701; prereq 3501 or #; fall, spring)
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 4101. Helping Relationships. (SS; 4 cr; prereq 3302; fall, spring, every year)
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 4910. Advanced Seminar in Cognitive Psychology. (SS; 4 cr; =Psy 4710; prereq 2001, 3111 or 3112, or status, #; A-F only; fall, every year)
Advanced seminar on selected topics in the area of cognitive psychology. Members of the seminar read and discuss primary source material on a topic of common interest. In addition, each student investigates a related topic in greater depth. The student writes a paper and gives a public presentation based on the in-depth investigation.
Division Structure and Course Descriptions

Psy 4920. Advanced Seminar in Biological or Comparative Psychology. [SS; 4 cr; =Psy 4720]; prereq 2001, 3201 or 3211, sr status, #; A-F only; spring, every year)

Advanced seminar on selected topics in the area of Biological and Comparative Psychology. Members of the seminar read and discuss primary source material on a topic of common interest. In addition, each student investigates a related topic in greater depth. The student writes a paper and gives a public presentation based on the in-depth investigation.

Psy 4930. Advanced Seminar in Personality or Clinical Psychology. [SS; 4 cr; =Psy 4730]; prereq 2001, 3302 or 3313, sr status, #; A-F only; spring, every year)

Advanced seminar on selected topics in the area of Personality or Clinical Psychology. Members of the seminar read and discuss primary source material on a topic of common interest. In addition, each student investigates a related topic in greater depth. The student writes a paper and gives a public presentation based on the in-depth investigation.

Psy 4940. Advanced Seminar in Developmental Psychology. [SS; 4 cr; =Psy 4740]; prereq 2001, 3401 or 3402 or 3403, sr status, #; A-F only; fall, every year)

Advanced seminar on selected topics in the area of Developmental Psychology. Members of the seminar read and discuss primary source material on a topic of common interest. In addition, each student investigates a related topic in greater depth. The student writes a paper and gives a public presentation based on the in-depth investigation.

Psy 4950. Advanced Seminar in Social Psychology. [SS; 4 cr; =Psy 4750]; prereq 2001, 3501, sr status, #; A-F only; spring, every year)

Advanced seminar on selected topics in the area of Social Psychology. Members of the seminar read and discuss primary source material on a topic of common interest. In addition, each student investigates a related topic in greater depth. The student writes a paper and gives a public presentation based on the in-depth investigation.

Psy 4960. Advanced Seminar in Health Psychology. [SS; 4 cr; =Psy 4760]; prereq 2001, 3302 or 3313, sr status, #; A-F only; fall, every year)

Advanced seminar on selected topics in the area of Health Psychology. Members of the seminar read and discuss primary source material on a topic of common interest. In addition, each student investigates a related topic in greater depth. The student writes a paper and gives a public presentation based on the in-depth investigation.

Soc 2101. Systems of Oppression. (HDiv; 4 cr; prereq 1101 or Anth 1111 or #; fall, every year)

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 3111. Sociology of Modernization. (IP; 4 cr; prereq 1101 or Anth 1111 or #; spring, every year)

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 3121. Sociology of Gender. (HDiv; 4 cr; prereq 1101 or Anth 1111 or #; fall, every year)

An introduction to the sociological study of gender. Focus on gender difference and gender inequality. Analysis of the changing roles, opportunities, and expectations of women and men as their societies (and subsequently, gender relations and power) undergo change in today’s world. Theoretical overview and an examination of how gender affects everyday experiences.

Soc 3122. Sociology of Childhoods. (HDiv; 4 cr; prereq 1101 or #; spring, odd years)

Introduction to the sociological study of childhoods. Examination of the interaction between societies and their youngest members—how societies shape children’s lives through social institutions such as families, education, and the state. A close look at children’s access to privileges and resources as determined by children’s experiences of race, gender, class, nationality, and sexual orientation.

Soc 3131. World Population. (Envt; 4 cr; prereq 1101 or #; fall, every year)

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 3141. Sociology of Deviance. (E/CR; 4 cr; prereq 4 cr in Soc or #; fall, every year)

An introduction to the sociological study of deviance. Explore the social reality of deviance within contemporary society and examine the social construction of deviant categories. Specific focus on images of deviance as social constructs, rather than as intrinsic elements of human behavior. Investigation of the complex relationships between individual behavior and social structure, with a focus on power, inequality, and oppression. Also, an examination of the socio-cultural definitions of morality and behavior.

Soc 3251. African Americans. (HDiv; 4 cr; prereq 1101 or Anth 1111; offered when feasible; fall, spring)

Examination of African American religious, economic, political, family, and kinship institutions in the context of the greater American society. Struggles to overcome problems and the degree of success or failure of these struggles are examined and placed in historical context.

Soc 3252. Women in Muslim Society. (IP; 4 cr; prereq 1101 or Anth 1111; spring)

The cultures and social statuses of women in several Muslim countries are examined and placed in their political, economic, and religious contexts.

Soc 3451. Contemporary American Indians. (HDiv; 4 cr; =Anth 3451); prereq 1101 or Anth 1111 or #; fall, odd years)

Same as Anth 3451. The cultures of contemporary Indian tribes in the United States. Government policies, gaming, urban populations, education, self-determination, and identity.

Soc 3452. American Indian Women. (HDiv; 4 cr; =Anth 3452); prereq 1101 or Anth 1111 or #; fall, every year)

Same as Anth 3452. The role of Indian and mixed-blood women in a variety of North American Indian cultures, both traditional and contemporary, using ethnography, autobiograpy, 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 3601. Social Change and Development in Latin America. (IP; 4 cr; =Anth 3601); prereq 1101 or Anth 1111 or #; spring, every year)

Same as Anth 3601. 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.

Soc 3602. Women in Latin America. (IP; 4 cr; =Anth 3602; prereq 1101 or Anth 1111 or #; fall, odd years)
Same as Anth 3602. Study of the 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, economic and political conditions, religion and women, etc.

Spch 3401. Human Communication Theory. (SS; 4 cr; prereq 2101 or #; fall, every year)
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 3421. Organizational Communication Theory and Research. (SS; 4 cr; prereq 2101 or #; spring, every year)
Study of organizational communication, including small group perspectives.

WSS 1051. Fitness for Life. (2 cr; fall, spring, every year)
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 4501—Senior Research Seminar in Economics and Management

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 4501—Senior Research Seminar in Economics and Management

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 1052—Introduction to Public Speaking or Spch 4151—Argumentation: Theory and Practice
Mgmt 3101—Financial Management
At least 8 credits from Mgmt 3133, 4101, 46xx, Econ 3113, 4131

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, 3351 (same as Mgmt 3351), 4121, 4131, Mgmt 45xx

III. Organizations and Human Resources
Spch 1052—Introduction to Public Speaking or Spch 4151—Argumentation: Theory and Practice
Phil 2112—Professional Ethics
Mgmt 3151—Human Resource Management I
10 credits taken from 3161, 3162, 3221, 3513, 3701,
Division Structure and Course Descriptions

3702, 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 or 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 or 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. A minimum GPA of 2.00 is required in the major in order to graduate. The GPA includes all, and only, University of Minnesota course work. Grades of “F” are included in GPA calculation until they are replaced.

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 4501—Senior Research Seminar in Economics and Management
Mgmt x993—Directed Study

Grades of D or 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. A minimum GPA of 2.00 is required in the minor in order to graduate. The GPA includes all, and only, University of Minnesota course work. Grades of “F” are included in GPA calculation until they are replaced.

Course Descriptions

Mgmt 1301. Legal Environment of Business. (SS; 4 cr; prereq high school civics; for nonmajors; offered when feasible; fall) An introduction to the regulatory environment of business, including constitutional authority, administrative law, business crimes and torts, competition and sales in the marketplace, agency and employment law, business forms and capitalization. (Continuing Education course—internet delivered only)

Mgmt 1993. Directed Study. (1-5 cr; max 10 cr; prereq approved directed study form; fall, spring, every year) An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.

Mgmt 2101. Principles of Accounting I. (4 cr; fall, every year) 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 2102. Principles of Accounting II. (4 cr; prereq 2101; spring, every year) 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 2993. Directed Study. (1-5 cr; max 10 cr; prereq approved directed study form; fall, spring, every year) An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.


Mgmt 3133. Managerial Accounting. (4 cr; prereq 2102; offered when feasible; fall, spring) 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.

Mgmt 3141. Business Law I. (SS; 2 cr; prereq 2101 or #; offered when feasible; fall, spring) 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; fall, spring) 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 3151. Human Resources Management. (E/CR; 2 cr; prereq 2101 or #; spring, every year) An introduction to the functional areas of human resource management through the use of case studies. Topics include legal issues, training, compensation, and benefits.

Mgmt 3161. Labor Management Relations I. (E/CR; 2 cr; prereq Econ 1111 or #; offered when feasible; fall, spring) Historical development of labor relations and the legal framework governing collective bargaining. Labor relations law reform. Case studies from labor relations law.

Mgmt 3162. Labor Management Relations II. (SS; 2 cr; prereq 3161 or #; offered when feasible; spring) Issues in labor-management negotiation, grievances, wages and economic security plans, public policies toward collective bargaining. Case studies from labor arbitration.
Mgmt 3201. Marketing Principles and Strategy. (SS; 4 cr; prereq 2102, Stat 1601 or #; offered when feasible; spring) 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 3351. Globalization: Examining India's Social and Economic Development. (IP; 4 cr; =ECON 3351; prereq Econ 1111 or Econ 1112 or #; spring) Same as Econ 3351. Observe and study the impact of globalization on the Indian economy. Examine the growing class divide between the middle and upper middle class and the lower class. Study the problem of mass poverty in India and its various ramifications such as child labor, lack of education and basic health care, and the inherent gender bias. Examine sustainable grass roots efforts to combat some of these problems. [Continuing Education course]

Mgmt 3501. Applied Deterministic Modeling for Management Science. (M/SR; 2 cr; =Math 3501; prereq 2102, Math 1101 or Stat 1601 or Stat 2601 or #; spring, every year) 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 3502. Applied Probabilistic Modeling for Management Science. (M/SR; 2 cr; =Math 3502; prereq 2102, Math 1101 or Stat 1601 or Stat 2601 or #; spring, every year) 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. Queueing 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 3513. Negotiation. (SS; 4 cr; =Psy 3513; prereq 2221 or Psy 3501 or Psy/Mgmt 3701; spring, even years) Same as Psy 3513. Examines the theoretical and applied aspects of negotiation. Topics include negotiation theory, strategy, skills and tactics, communication processes, global negotiation, and ethics. Use of negotiation simulations.

Mgmt 3601. Transnational Enterprise. (IP; 2 cr; prereq 2102, Econ 1111, Econ 1112 or #; fall, every year) 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; =Psy 3701; prereq jr or sr; fall, spring) 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 3702. Personnel Psychology. (SS; 2 cr; =Psy 3702; prereq Mgmt/Psy 3701; spring, odd years) Same as Psy 3702. Focus on a behavioral science perspective to understanding personnel issues within organizations. Topics include performance appraisal, training and development, selection, and job analysis.

Mgmt 3993. Directed Study. (1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year) On- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.

Mgmt 4101. Investment and Portfolio Analysis. (SS; 4 cr; prereq 2101, 2102, 3101; spring, every year) The institutional environment of investment, techniques used to price financial products, and how to design a portfolio of many assets.

Mgmt 4201. The Economics of Corporate Strategy I. (SS; 2 cr; prereq 2101, Econ 1111, Econ 1112, Math 1101, Stat 1601 or #; offered when feasible; fall, spring) Setting the horizontal boundaries (e.g., which lines of business) and vertical boundaries (whether to make or buy inputs and outputs) of the firm, considered as strategic decisions. The different types of competition associated with distinct market structures.

Mgmt 4202. The Economics of Corporate Strategy II. (SS; 2 cr; prereq 4201; offered when feasible; fall, spring) Tools for analyzing business strategies: credible strategic commitments, pricing rivalries, entry and exit, Porter’s five forces framework, and the relationship between value creation and strategic market positioning.

Mgmt 4501. Globalization and Business Strategy. (IP; 2 cr; prereq 3601 or #; offered when feasible; fall, spring) 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 Market, and Skill Formation. (IP; 2 cr; prereq 3601 or #; offered when feasible; fall, spring) The change of technology in relation to the formation of skills and transformation of regional labor markets throughout the world. The intimate relationship between “skilling” and “deskilling” of labor and the transformation of technology.

Mgmt 4601. Advanced Topics in Financial Economics. (SS; 2 cr; prereq 3101 or #; offered when feasible; fall, spring) Continuation of Mgmt 3101. Topics include dividend policy, hybrid financing, derivatives, and mergers.

Mgmt 4602. Long-Term Financing. (SS; 2 cr; prereq 3101 or #; offered when feasible; fall) Application of the fundamental financial theories acquired in Mgmt 3101 to long-term financing in corporations. The primary focus is on issuing securities to the public, financial leverage, capital structure policy, dividend policy, and leasing.
Mgmt 4603. Working Capital Management. (SS; 2 cr; prereq 3101 or #: offered when feasible; fall)
Application of the fundamental financial theories acquired in Mgmt 3101 to working capital management in corporations. The primary focus is on financial planning, cash management, credit management, and risk management.

Mgmt 4896. Internship. (1-4 cr [max 4 cr]; prereq 2102, #: 2 cr may be applied to major or minor; S-N only; fall, spring, every year)
Supervised educational experience and field application relevant to student’s major. Written analysis appropriate to the application is required.

Mgmt 4993. Directed Study. (1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year)
An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.

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 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 curriculum is designed to help students develop competence in mathematical techniques and methods; to sharpen students’ mathematical intuition and abstract reasoning as well as their reasoning from numerical data; to encourage and stimulate the type of independent thinking required for research beyond the confines of the textbook; and to provide students with the basic knowledge and skills to make mathematical contributions to modern society. 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.

Major Requirements

Required Courses
Math 1101—Calculus I, M/SR (5 cr)
Math 1102—Calculus II, M/SR (5 cr)
Math 2101—Calculus III, M/SR (4 cr)
Math 2111—Linear Algebra, M/SR (4 cr)
Math 2202—Mathematical Perspectives, M/SR (4 cr)
Math 3221—Analysis, M/SR (4 cr)
Math 3231—Abstract Algebra I, M/SR (4 cr)
Math 4901—Senior Seminar, M/SR (1 cr)
Stat 2611—Mathematical Statistics, M/SR (4 cr)
Take 1 or more course(s) from the following:
  Math 2401—Differential Equations, M/SR (4 cr)
  Math 3401—Operations Research, M/SR (4 cr)
  Math 3411—Discrete and Combinatorial Mathematics, M/SR (4 cr)
  Math 4401—Numerical Methods with Applications in Mathematical Modeling, M/SR (4 cr)
  Math 4452—Mathematical Modeling, M/SR (4 cr)
Take 5 or more credit(s) from the following:
  Math 2xxx, 3xxx, 4xxx

Mathematical Applications Courses
Take 1 or more course(s) from the following:
  Chem 1101—General Chemistry I, Sci-L (4 cr)
  Chem 1102—General Chemistry II, Sci-L (4 cr)
  Chem 3501—Physical Chemistry I, Sci (4 cr)
  Econ 3201—Microeconomic Theory, SS (4 cr)
  Econ 3202—Macroeconomic Theory, SS (4 cr)
  Econ 3501—Introduction to Econometrics, M/SR (4 cr)
  Econ 4111—Mathematical Economics I, M/SR (2 cr)
  Econ 4112—Mathematical Economics II, M/SR (2 cr)
  Geol 3401—Geophysics, Sci (4 cr)
  Geol 3501—Hydrology, Sci (4 cr)
  Mgmt 3101—Financial Management, SS (4 cr)
  Mgmt 3201—Marketing Principles and Strategy, SS (4 cr)
  Math 3501—Applied Deterministic Modeling for Management Science, M/SR (2 cr)
  Math 3502—Applied Probabilistic Modeling for Management Science, M/SR (2 cr)
  NSci 3201—Relativity and Cosmology, Sci (4 cr)
  Phys 1101—General Physics I, Sci-L (5 cr)
  Phys 1102—General Physics II, Sci-L (5 cr)
  Phys 2101—Modern Physics, Sci-L (5 cr)
  Phys 3101—Classical Mechanics, Sci (4 cr)
  Phys 3201—Mathematical Methods in Physics, Sci (4 cr)
  Phys 3301—Optics, Sci-L (4 cr)
  Phys 4101—Electromagnetism, Sci (4 cr)
  Phys 4201—Quantum Mechanics, Sci (4 cr)
Stat 2601—Statistical Methods, M/SR (4 cr)
CSci 1301—Problem Solving and Algorithm Development, M/SR (4 cr)
CSci 1302—Foundations of Computer Science, M/SR (4 cr)
CSci 2101—Data Structures, M/SR (5 cr)
CSci 3401—Models of Computing Systems, M/SR (5 cr)
CSci 3501—Algorithms and Computability, M/SR (5 cr)
CSci 3601—Software Design and Development, M/SR (5 cr)
Phil 2101—Introduction to Symbolic Logic, M/SR (4 cr)
Psy 3111—Sensation and Perception, SS (4 cr)
Psy 3112—Cognition, SS (4 cr)
Stat 3601—Data Analysis, M/SR (4 cr)
Stat 3611—Multivariate Statistical Analysis, M/SR (4 cr)
Stat 4601—Biostatistics, M/SR (4 cr)

A minimum GPA of 2.00 is required in the major in order to graduate. The GPA includes all, and only, University of Minnesota course work. Grades of “F” are included in GPA calculation until they are replaced. Courses may not be taken S-N unless offered S-N only. Up to 5 credits of coursework with a grade of D or D+ may be used to meet the Major Requirements if offset by an equivalent number of credits of B- or above in courses at or above the 2xxx level. Exceptions to requirements may be granted on an individual basis, after consulting with the math faculty.

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 electives for students planning to pursue graduate work in pure mathematics:

Math 4201—Complex Analysis
Math 4211—Real Analysis
Math 4221—Topology
Math 4231—Abstract Algebra II
Math 4241—Number Theory
Math 4252—Differential Geometry
Math 4253—Combinatorics

Recommended electives for students planning to work or pursue graduate work in applied mathematics or related fields:

Math 2401—Differential Equations
Math 3401—Operations Research
Math 3411—Discrete and Combinatorial Mathematics
Math 4401—Numerical Methods with Applications in Mathematical Modeling
Math 4452—Mathematical Modeling

One of the courses below can be chosen to fulfill 4 elective credits for the math minor
Stat 2601—Statistical Methods, M/SR (4 cr)
or Stat 2611—Mathematical Statistics, M/SR (4 cr)

Courses may not be taken S-N unless offered S-N only. Up to 5 credits of coursework with a grade of D or D+ may be used to meet the minor requirements if offset by an equivalent number of credits of B- or above in courses at or above the 2xxx level.

A minimum GPA of 2.00 is required in the minor in order to graduate. The GPA includes all, and only, University of Minnesota course work. Grades of “F” are included in GPA calculation until they are replaced.

**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 0901. Basic Algebra. (0 cr [max 4 cr]; 0 cr toward graduation, 4 cr toward financial aid; fall, every year)
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 1001. Survey of Math. (M/SR; 4 cr; prereq 2 yrs high school math; spring, every year)
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 1011. Pre-Calculus. (4 cr; prereq high school higher algebra, geometry; intended to prepare students for Math 1101; fall, spring, every year)
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 1021. Survey of Calculus. (M/SR; 4 cr; prereq high school higher algebra, geometry or 1011; fall, every year)
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 1101. Calculus I. (M/SR; 5 cr; prereq high school higher algebra, geometry or 1011; fall, spring, every year)
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 1102. Calculus II. (M/SR; 5 cr; prereq 1101; fall, spring, every year)

Math 1993. Directed Study. (1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year)
An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum. In particular, students are encouraged to take at least one credit of a directed study in problem solving in mathematics. Such courses, at different levels, are available each term.

Math 2101. Calculus III. (M/SR; 4 cr; prereq 1102 or #; fall, spring, every year)
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 2111. Linear Algebra. (M/SR; 4 cr; prereq 1101 or #; fall, spring, every year)
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 2202. Mathematical Perspectives. (M/SR; 4 cr; prereq 1101; spring, every year)
Introduction to the methodology and subject matter of modern mathematics. Logic, sets, functions, relations, cardinality, and induction. Introductory number theory. Roots of complex polynomials. Other selected topics.

Math 2211. History of Mathematics. (4 cr; prereq Math course above 1100 or #; fall, every year)
Historical development of various areas in mathematics and important figures in mathematics from ancient to modern times.

Math 2401. Differential Equations. (M/SR; 4 cr; prereq 1102 or #; fall, every year)
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 2501. Probability and Stochastic Processes. (M/SR; 4 cr; [Stat 2501]; prereq 1101 or #; fall, every year)

Math 2993. Directed Study. (1–5 cr [max 25 cr]; prereq approved directed study form; fall, spring, every year)
An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum. In particular, students are encouraged to take at least one credit of a directed study in problem solving in mathematics. Such courses, at different levels, are available each term.

Math 3211. Geometry. (M/SR; 4 cr; prereq Math course above 1100; fall, odd years)
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 3221. Analysis. (M/SR; 4 cr; prereq 1102, 2202 or #; fall, every year)
Introduction to real and complex analysis. The main topics of calculus-convergence, continuity, differentiation, integration, and series-applied and extended in advanced settings with emphasis on precise statements and rigorous proofs. Concept of metric space. Other topics and applications.

Math 3231. Abstract Algebra I. (M/SR; 4 cr; prereq 2111, 2202 or #; spring, every year)
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 3401. Operations Research. (M/SR; 4 cr; prereq 1100 or higher or #: spring, every year)
Topics include, but not limited to, linear and integer linear programming formulations, sensitivity analysis and duality, network models and applications.

Math 3411. Discrete and Combinatorial Mathematics. (M/SR; 4 cr; prereq 1100 or higher or #: fall, every year)
Propositional logic; equivalence relations; recurrence equations; structures and properties of undirected and directed graphs; applications of the aforementioned topics.

Math 3501. Applied Deterministic Modeling for Management Science. (M/SR; 2 cr; =Mgmt 3501; prereq 1101 or Stat 1601 or Stat 2601 or Stat 2611, Mgmt 2102 or #: spring, every year)
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 3502. Applied Probabilistic Modeling for Management Science. (M/SR; 2 cr; =Mgmt 3502; prereq 1101 or Stat 1601 or Stat 2601 or Stat 2611, Mgmt 2102 or #: spring, every year)
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. Queueing 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 3993. Directed Study. (1–5 cr [max 25 cr]; prereq approved directed study form; fall, spring, every year)
An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum. In particular, students are encouraged to take at least one credit of a directed study in problem solving in mathematics. Such courses, at different levels, are available each term.

Courses numbered 42xx can include a variety of topics in mathematics. Each year the mathematics discipline will decide which courses to offer, taking student preferences into account.

Math 4201. Complex Analysis. (M/SR; 2 cr; prereq 3221 or #: fall, spring)
Differentiable and analytic functions of a complex variable. Contour integral theorems. Laurent expansions. Other topics optional.

Math 4211. Real Analysis. (M/SR; 2 cr; prereq 3221 or #: fall, spring)
Differentiation of functions of several variables. The extension of integration to other forms of integrals. Introduction to measure theory. Other optional topics.

Math 4221. Topology. (M/SR; 2 cr; prereq 2202 or #: fall, spring)
Selected topics from point set topology and/or algebraic topology.

Math 4231. Abstract Algebra II. (M/SR; 2 cr; prereq 3231 or #: fall, spring)
Selected topics from the theory of finite groups, Galois theory of fields, and/or the theory of rings.

Math 4241. Number Theory. (M/SR; 2 cr; prereq 2202 or #: fall, spring)
Selected topics from modular congruences, theory of primes, classical Diophantine equations, and the connections with algebraic curves.

Math 4251. Problem Solving in Pure Math. (M/SR; 2 cr; prereq #: fall, spring)
Strategies for investigating problems. Fundamental tactics for solving problems, cross-over tactics. Specific ideas in problems from algebra, combinatorics, number theory, and calculus.

Math 4252. Differential Geometry. (M/SR; 2 cr; prereq #: fall, spring)
Geometry of curves and surfaces. Frames, curvature, torsion, orientation, differential forms, topological properties of surfaces. The notion of differentiable manifold. Selected applications.

Math 4253. Combinatorics. (M/SR; 2 cr; prereq #: fall, spring)
Selected topics from graph theory, the theory of ordered sets, and/or enumerative combinatorics.

Math 4401. Numerical Methods with Applications in Mathematical Modeling. (M/SR; 4 cr; prereq 2111, 2401 or #: offered when feasible; fall, spring)
Finite differences; interpolation; numerical integration; numerical solutions of differential, algebraic, and transcendental equations; continuous mathematical models.

Math 4451. Fundamentals of Numerical Analysis. (M/SR; 4 cr; #; fall, spring)

Math 4452. Mathematical Modeling. (M/SR; 4 cr; #: offered when feasible; fall, spring)
Mathematical modeling using discrete and continuous models. Mathematical topics include, but are not limited to, curve fitting, statistical testing, regression analysis, differential equations, and dynamical systems. Topics drawn from population growth, interacting populations, biology, genetics, traffic flow, or finance.

Math 4901. Senior Seminar. (M/SR; 1 cr; prereq sr; full year course begins fall sem; fall, every year)
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 4993. Directed Study. (1–5 cr [max 25 cr]; prereq approved directed study form; fall, spring, every year)
An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum. In particular, students are encouraged to take at least one credit of a directed study in problem solving in mathematics. Such courses, at different levels, are available each term.
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*
*Concurrent enrollment in piano lessons until the piano proficiency test is passed.

Core Studies III
Mus 3101—Medieval, Renaissance, and Baroque Music
Mus 3102—Classical, Romantic, and 20th-Century Music
4 credits in Individual Performance Studies in the applied area
No grades below C- are allowed. Required courses may not be taken S-N unless offered S-N only. A minimum GPA of 2.00 is required in the minor in order to graduate. The GPA includes all, and only, University of Minnesota course work. Grades of “F” are included in GPA calculation until they are replaced.

Minor Requirements

20 credits:
4 enrollments in Mus 0100—Concert Attendance

Core Studies I
Mus 1101—Music Theory I*

Mus 1102—Music Theory II*
*Concurrent enrollment in piano lessons until the piano proficiency test is passed.

and

Core Studies III
Mus 3101—Medieval, Renaissance, and Baroque Music
Mus 3102—Classical, Romantic, and 20th-Century Music
4 credits in Individual Performance Studies in the applied area
No grades below C- are allowed. Required courses may not be taken S-N unless offered S-N only. A minimum GPA of 2.00 is required in the minor in order to graduate. The GPA includes all, and only, University of Minnesota course work. Grades of “F” are included in GPA calculation until they are replaced.

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 0100. Concert Attendance. (0 cr; prereq major; S-N only; fall, spring, every year)
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 1041. Introduction to Music. (FA; 4 cr; fall, every year)
Survey emphasizing development of an intelligent understanding and appreciation of music. For non-music majors.

Mus 1042. Fundamentals of Music. (FA; 4 cr; spring, even years)
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 become familiar with and appreciate this art form.

Mus 1044. Class Piano. (ArtP; 1 cr; special fee required; fall, spring, every year)
Introduction to piano performance for students with no previous piano training. Students will learn basic keyboard skills including note reading, fingering, and counting. Study beginning piano technique and learn to perform elementary-level solos and ensembles.

Mus 1045. Class Guitar. (ArtP; 1 cr; special fee required; fall, spring, every year)
Introduction to guitar performance for students with no previous guitar experience. Students learn basic guitar skills, study beginning guitar technique, and learn to perform music. This class is not for students who have played guitar before.
Mus 1050. Accompanying. (ArtP; 1 cr [max 8 cr]; prereq #; S-N only; fall, spring, every year)
Students who accompany private lessons and recitalists may receive credit. Accompanying assignments are made through consultation with the piano faculty.

Mus 1070. Instrumental Chamber Ensemble. (ArtP; 1 cr [max 8 cr]; prereq #; fall, spring, every year)
Performance of instrumental chamber music. Groups are formed according to the interests of students and availability of materials.

Mus 1080. Jazz Combo. (ArtP; 1 cr [max 8 cr]; prereq #; fall, spring, every year)
Performance of instrumental jazz music with emphasis on improvisation.

Mus 1090. Vocal Chamber Ensemble. (ArtP; 1 cr [max 8 cr]; prereq #; fall, spring, every year)
Performance of vocal ensemble music especially written for smaller groups.

Mus 1101. Core Studies I: Music Theory I. (M/SR; 4 cr; prereq major or minor or #, concurrent enrollment in piano lessons until the piano proficiency test is passed; fall, every year)
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 music reading at the start of the course.

Mus 1102. Core Studies I: Music Theory II. (M/SR; 4 cr; prereq 1101, major or minor or #, concurrent enrollment in piano lessons until the piano proficiency test is passed; spring, every year)
Harmonic progression and modulation, seventh chords, secondary dominants and sevenths, analysis of scores with attention to two- and three-part forms.

Mus 1200-1223. Individual Performance Studies. (ArtP; 1 cr [max 8 cr] per sem for each; prereq #; special fee required; fall, spring, every year)
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 series. The examination provides an effective check on the music student’s progress. All music majors and other students who anticipate applying for the jury exam should enroll under A-F grading only. Note: Applied music instructors are not expected to make up sessions for 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 1223. Composition

Mus 1300. UMM Symphonic Winds. (ArtP; 1 cr [max 8 cr]; fall, spring, every year)
Rehearsals and concerts cover standard and contemporary wind ensemble literature with emphasis on concert performance. Several concerts annually in addition to spring concert tour.

Mus 1310. University Choir. (ArtP; 1 cr [max 8 cr]; fall, spring, every year)
Preparation of choral works for at least one public concert each semester and other special events. Emphasis on basic choral singing techniques.

Mus 1320. Concert Choir. (ArtP; 1 cr [max 8 cr]; prereq #; fall, spring, every year)
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 1330. Jazz Ensemble. (ArtP; 1 cr [max 8 cr]; fall, spring, every year)
Rehearsals and concerts cover the literature for this medium.

Mus 1340. Orchestra. (ArtP; 1 cr [max 8 cr]; fall, spring, every year)
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 1401. English, Italian, German, and French Diction for Singers. (ArtP; 1 cr; A-F or Aud; spring, odd years)
The sounds and symbols of the International Phonetic Alphabet, rules for correct English, Italian, German, and French lyric diction. Transactions of German Lieder, French Melodie, Italian Arias, and English Songs into International Phonetic Alphabet. German, French, Italian, and English songs performed in class on basic choral singing techniques.

Mus 2101. Core Studies II: Music Theory III. (Hum; 4 cr; prereq 1102, major or minor or #, concurrent enrollment in piano lessons until the piano proficiency test is passed; fall, every year)
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 2102. Core Studies II: Music Theory IV. (Hum; 4 cr; prereq 2101, major or minor or #, concurrent enrollment in piano lessons until the piano proficiency test is passed; spring, every year)
Extended chromatic harmony of the Romantic and later eras—ninth, eleventh, and thirteenth chords; altered dominant and chromatic mediant analysis; analysis of scores including nonfunctional harmony; and twelve-tone techniques.

Mus 3051. Piano Pedagogy I. (ArtP; 2 cr; prereq 1200 or #; fall, every year)
This course is a study, demonstration, and discussion of the various elements of piano teaching methods, techniques, and materials for elementary and early intermediate levels. This course includes analysis of various piano courses and piano literature, discussion of technical
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Division Structure and Course Descriptions

regimes, ideas for private and group lessons, and planning for the practical business aspect of teaching. Recommended for piano majors. [Continuing Education course]

Mus 3052. Piano Pedagogy II. (ArtP; 2 cr; prereq 1200 or #; fall, odd years)
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. [Continuing Education course]

Mus 3061. Guitar Pedagogy. (ArtP; 2 cr; prereq 1221 or #; fall, spring, every year)
Discussions and readings on guitar pedagogy, private and group lessons, instructing young students, practice methods and business issues associated with self-employment in teaching music. Instruction of beginners in a one-on-one situation and classroom presentation of lessons. [Continuing Education course]

Mus 3065. Introduction to Creative Guitar Repertoire. (ArtP; 1 cr [max 2 cr]; prereq 1221 or #; offered when feasible; fall)
Exploration of guitar styles and genera. Rather than master each style, students write original pieces or arrangements based on each style. Professional musicians present guest lectures and give private lessons. Course culminates in a concert featuring student compositions. [Continuing Education course]

Mus 3071. Seminar in Composition. (ArtP; 4 cr [max 8 cr]; prereq 1101, major or minor, or #; offered when feasible; summer)
A practical opportunity for students at differing ability levels to study compositional techniques through pre-existing works and apply those techniques in a variety of compositional projects in different mediums. Discussion of instrument ranges; orchestral techniques; score study; listening to scores; study of forms, including fugues, sonata form, ternary, rondo, minuet, and scherzo; rhythm; melody; and harmonic rhythm. Students compose and perform an original composition. [Continuing Education course]

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

Mus 3102. Core Studies III: Classical, Romantic, and 20th-Century Music. (FA; 4 cr; prereq 1102, major or minor or #; spring, every year)
Historical development of Western music and representative literature of the various periods and styles.

Mus 3200-3223. Advanced Individual Performance Studies. (ArtP; 1 cr [max 8 cr] per sem for each; prereq #; fall, spring, every year)
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 absences from scheduled lessons.

Mus 3301. Instrumental Techniques—Woodwind. (1 cr; prereq major or minor or #; fall)
Practical study to develop elementary skills as well as a basic teaching knowledge and understanding of performance problems of the woodwind instruments.

Mus 3302. Instrumental Techniques—Brass and Percussion. (1 cr; prereq major or minor or #; spring)
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 3303. Instrumental Techniques—Strings. (1 cr; prereq major or minor or #; fall)
Practical study to develop elementary skills as well as a basic teaching knowledge and understanding of performance problems of the string instruments.

Mus 3304. Vocal Techniques. (1 cr; prereq major or minor or #; spring, even years)
Practical study to develop elementary skills as well as a basic teaching knowledge and understanding of performance problems of the voice.

Mus 3311. Conducting Techniques. (2 cr; prereq major or minor or #; fall, every year)
Instrumental and choral conducting skills.

Mus 3321. Instrumental Conducting and Materials. (2 cr; prereq 3311, major or minor or #; spring, every year)
Specialization of instrumental conducting and a survey of ensemble materials for various levels of ability and maturity.

Mus 3331. Choral Conducting and Materials. (2 cr; prereq 3311, major or minor or #; spring, every year)
Specialization of choral conducting and a survey of ensemble materials for various levels of ability and maturity.

Mus 3351. Instrumental Arranging. (ArtP; 2 cr; prereq 1102 or #; A-F only; offered when feasible; spring)
Theoretical study of orchestral and band instruments and special problems of scoring and arranging for small and large instrumental ensembles.

Mus 3352. Choral Arranging. (ArtP; 2 cr; prereq 1102 or #; A-F only; offered when feasible; spring)
Practical study of arranging for vocal ensembles and for vocal ensembles with instruments; exercises dealing with special problems and limitations of different age and ability groups.

Mus 3400. Opera Workshop. (ArtP; 1 cr [max 4 cr]; prereq #; spring, every year)
Practical introduction to opera performance. Students become familiar with a number of operas and musical comedies and perform selections emphasizing ensemble work.

Mus 3993. Directed Study. (1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year)
An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.

Mus 4101. Form and Analysis. (4 cr; prereq 1102, major or minor or #; spring, odd years)
Analysis of musical forms, including harmonic and melodic structure of the phrase, the binary principle, the ternary principle, sonata allegro, rondo, and later alterations of the forms.

Mus 4102. Counterpoint. (FA; 4 cr; prereq 2102 or #; spring, even years)
Contrapuntal techniques of the 18th century with references to earlier 16th century species counterpoint.
Mus 4901. Senior Project. (1 cr; prereq major; #; S-N only; fall, spring, every year)
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 3223 normally satisfy this requirement with a senior recital.

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; spring)
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 1061. Salmon in Endangered Ecosystems. (Envt; 4 cr; includes an intensive 2.5 week field component; offered when feasible; summer)
The natural history of salmon and the rivers they inhabit. Examination of how practices such as timber harvest, grazing of domestic livestock, and construction of hydropower dams have impacted river ecosystems and have contributed to the historic decline of salmon populations in the Pacific Northwest. There is an intensive field component to this course (about 2.5 weeks) in addition to in-class preparation and introduction of relevant concepts and background material.

NSci 2061. Arctic Field Ecology and Geology. (Envt; 4 cr; offered when feasible; summer)
Interdisciplinary study of the ecological systems and geologic processes of arctic and alpine environments, including discussion of the human ecology of the arctic and the response of biological and physical systems to global climate change. Taught in northern Sweden. [Continuing Education course]

NSci 2102. Field Experience in Natural History: The Italian Alps. (Sci; 4 cr; offered when feasible; summer)
Study of the geology, soils, vegetation, and glaciers of the Italian Alps. Understanding the geologic history, Paleozoic evolution and extinction, mountain building, climate change; the “iceman” and early human habitation of the region; influence of the natural setting on humans and environmental problems associated with human development.

NSci 3100. Scientific Biography and Autobiography. (2 cr [max 4 cr]; prereq #; offered when feasible; fall, spring)
The life, work, and times of eminent scientists through biography and autobiography.

NSci 3201. Relativity and Cosmology. (Sci; 4 cr; prereq Math 1102, Phys 1102 or #; offered when feasible; fall, spring)

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 offers students the opportunity to study 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
Required introductory courses:
- Phil 1101—Introduction to Philosophy
- Phil 2101—Introduction to Symbolic Logic
- Phil 2111—Introductory Ethics

Any two elective courses from:
- Phil 2121—Philosophy of Religion
- Phil 2112—Professional Ethics
- Phil 2113—International and Biomedical Ethics
- Phil 2141—Analytic Feminism
- Phil 2151—Philosophy of Mind
- Phil 3131—Philosophy of Law
- Phil 4000—History of Philosophy Seminar
- Phil 4002—Existentialism
- Phil 4100—Moral Issues and Theories
- Phil 4121—Philosophy of Language
- Phil 4130—Contemporary Issues in Philosophy
- Phil 4131—Personal Identity, Proper Names, and Essences

Three core courses from:
- Phil 3101—Metaphysics
- Phil 3121—Political Philosophy
- Phil 3141—The Theory of Knowledge
- Phil 3151—History of Ancient Philosophy
- Phil 3171—History of Modern Philosophy
- Phil 4111—Ethical Theory
- Phil 4901—Senior Philosophical Defense

One additional 4xxx course, other than 4901, that may not be used to fulfill other requirements of the major
Division Structure and Course Descriptions

No grades below C- are allowed. A minimum GPA of 2.00 is required in the major in order to graduate. The GPA includes all, and only, University of Minnesota coursework. Grades of “F” are included in GPA calculation until they are replaced. Required courses may not be taken S-N unless offered S-N only.

Minor Requirements

Any two introductory courses:
- Phil 1101—Introduction to Philosophy
- Phil 2101—Introduction to Symbolic Logic
- Phil 2111—Introductory Ethics

Any two elective courses from:
- Phil 2121—Philosophy of Religion
- Phil 2112—Professional Ethics
- Phil 2113—International and Biomedical Ethics
- Phil 2141—Analytic Feminism
- Phil 2151—Philosophy of Mind
- Phil 3131—Philosophy of Law
- Phil 4000—History of Philosophy Seminar
- Phil 4002—Existentialism
- Phil 4100—Moral Issues and Theories
- Phil 4121—Philosophy of Language
- Phil 4130—Contemporary Issues in Philosophy
- Phil 4131—Personal Identity, Proper Names, and Essences

Two core courses from:
- Phil 3101—Metaphysics
- Phil 3121—Political Philosophy
- Phil 3141—The Theory of Knowledge
- Phil 3151—History of Ancient Philosophy
- Phil 3171—History of Modern Philosophy
- Phil 4111—Ethical Theory

No grades below C- are allowed. A minimum GPA of 2.00 is required in the minor in order to graduate. The GPA includes all, and only, University of Minnesota coursework. Grades of “F” are included in GPA calculation until they are replaced. Required courses may not be taken S-N unless offered S-N only.

Course Descriptions

Phil 1101. Introduction to Philosophy. (Hum; 4 cr; fall, spring) 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 1993. Directed Study. (1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year) An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.

Phil 2101. Introduction to Symbolic Logic. (M/SP; 4 cr; fall, every year) 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.

Phil 2111. Introductory Ethics. (Hum; 4 cr; spring, every year) 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 2112. Professional Ethics. (E/CR; 4 cr; fall, every year) 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 2113. International and Biomedical Ethics. (Hum; 4 cr; offered when feasible; spring) A general survey of topics in international and biomedical ethics. Topics may include: nuclear deterrence, humanitarian intervention, just war theory, famine relief, global justice, abortion, euthanasia, doctor-patient relationships, clinical trials, animal experimentation, and genetic engineering.

Phil 2121. Philosophy of Religion. (Hum; 4 cr; offered when feasible; spring) A selection of main philosophical issues concerning religion such as the notion of a divinity, the attempts to prove or refute the existence of a divine being, the relationship between faith and reason, the link between religion and morality, the knowledge of a divinity.

Phil 2141. Analytic Feminism. (Hum; 4 cr; offered when feasible; spring) 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 2151. Philosophy of Mind. (Hum; 4 cr; offered when feasible) An introduction to several problems in the philosophy of mind, such as the mind/body problem, consciousness, and psychological explanation.

Phil 2993. Directed Study. (1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year) An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.

Phil 3101. Metaphysics. (Hum; 4 cr; prereq 1101 or 2101 or 2111 or #; spring, even years) 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 3111. Philosophy of Mind. (Hum; 4 cr; offered when feasible) An introduction to several problems in the philosophy of mind, such as the mind/body problem, consciousness, and psychological explanation.

Phil 3121. Political Philosophy. (SS; 4 cr; prereq 1101 or 2101 or 2111 or #; fall, even years) 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; spring, even years)
Critical examination of theoretical and practical normative issues in the philosophy of law, especially questions regarding the justification of punishment.

Phil 3141. The Theory of Knowledge. (Hum; 4 cr; prereq 1101 or 2101 or 2111 or #; fall, even years)
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 1101 or 2101 or 2111 or #; fall, even years)
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 3171. History of Modern Philosophy. (Hist; 4 cr; prereq 1101 or 2101 or 2111 or #; spring, even years)
Explores 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 3993. Directed Study. (1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year)
An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.

Phil 4000. History of Philosophy Seminar. (Hist; 4 cr [max 8 cr]; prereq 1101 or 2101 or 2111 or #; fall, every year)
Intensive investigation of a particular philosophical problem, area, or work of a philosopher. Topics vary.

Phil 4002. Existentialism. (Hist; 4 cr; prereq any 1xxx or 2xxx or #; fall, spring)
Examination of some prominent thinkers often classified as “existentialists”: Kierkegaard, Dostoevsky, Nietzsche, Sartre, and Camus. Topics include what human freedom is, what makes a life authentic (or inauthentic), what role passion and choice should play in acquiring our beliefs and values, and what difference (if any) God’s existence or non-existence makes on the significance of our lives.

Phil 4100. Moral Issues and Theories. (Hum; 4 cr [max 8 cr]; prereq 2111 or #; fall, every year)
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 4111. Ethical Theory. (Hum; 4 cr; prereq 2111 or #; spring, even years)
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 4121. Philosophy of Language. (Hum; 4 cr; prereq 2101 or #; spring, odd years)
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 4130. Contemporary Issues in Philosophy. (Hum; 4 cr [max 8 cr]; prereq 1101 or 2101 or 2111 or #; fall, odd years)
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 4131. Personal Identity, Proper Names, and Essences. (Hum; 4 cr; prereq 1101 or 2101 or 2111 or #; offered when feasible)
A seminar primarily devoted to the discussion of readings, i.e., Naming and Necessity by Saul Kripke and Reasons and Persons by Derek Parfit. Questions such as: How do proper names function? Are there essential features of persons or objects? What makes each of us the same particular individual over time?

Phil 4901. Senior Philosophical Defense. (1 cr; prereq Phil major; fall, spring, every year)
Writing and defending a senior philosophical thesis is the culminating experience for UMM philosophy majors. Majors develop a substantial piece of their philosophical writing during a 4000-level seminar, producing multiple drafts in response to comments from a variety of philosophical viewpoints, and then orally defend their thesis.

Phil 4993. Directed Study. (1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year)
An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.

Phil 4993. Directed Study for any 1xxx or 2xxx or #; fall, spring, every year)
An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.

Physical Education and Athletics
(See Wellness and Sport 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

Required Courses

Phys 1101—General Physics I, Sci-L (5 cr)
Phys 1102—General Physics II, Sci-L (5 cr)
Phys 2101—Modern Physics, Sci-L (5 cr)
Phys 3101—Classical Mechanics, Sci (4 cr)
Phys 4101—Electromagnetism, Sci (4 cr)
Phys 4201—Quantum Mechanics, Sci (4 cr)
Phys 4901—Senior Thesis (1 cr)
Math 1101—Calculus I, M/SR (5 cr)
Math 1102—Calculus II, M/SR (5 cr)
Math 2101—Calculus III, M/SR (4 cr)
Math 2401—Differential Equations, M/SR (4 cr)

Elective Courses

Take exactly 3 course(s) totaling exactly 12 credit(s)
from the following:

Phys 2201—Circuits and Electronic Devices, Sci-L (4 cr)
Phys 3001—Astrophysics, Sci (4 cr)
Phys 3002—Biological and Medical Physics, Sci (4 cr)
Phys 3003—Computer Modeling of Materials, Sci (4 cr)
Phys 3201—Mathematical Methods in Physics, Sci (4 cr)
Phys 3301—Optics, Sci-L (4 cr)
Phys 3401—Experimental Physics, Sci-L (4 cr)
Phys 3501—Statistical Physics, Sci (4 cr)
Phys 3993—Directed Study (1–5 cr)
Phys 4101—Electromagnetism, Sci (4 cr)
Phys 4201—Quantum Mechanics, Sci (4 cr)
Phys 4993—Directed Study (1–5 cr)

Courses may not be taken S-N. A minimum GPA of 2.00 is required in the major in order to graduate. The GPA includes all, and only, University of Minnesota course work. Grades of “F” are included in GPA calculation until they are replaced. No grades below C- are allowed.

Minor Requirements

Required Courses

Phys 1101—General Physics I, Sci-L (5 cr)
Phys 1102—General Physics II, Sci-L (5 cr)
Phys 2101—Modern Physics, Sci-L (5 cr)
Math 1101—Calculus I, M/SR (5 cr)
Math 1102—Calculus II, M/SR (5 cr)
Math 2101—Calculus III, M/SR (4 cr)

Elective Courses

Take 4 or more credit(s) from the following:

Phys 2201—Circuits and Electronic Devices, Sci-L (4 cr)
Phys 2993—Directed Study (1–5 cr)
Phys 3001—Astrophysics, Sci (4 cr)
Phys 3002—Biological and Medical Physics, Sci (4 cr)
Phys 3101—Classical Mechanics, Sci (4 cr)
Phys 3201—Mathematical Methods in Physics, Sci (4 cr)
Phys 3301—Optics, Sci-L (4 cr)
Phys 3401—Experimental Physics, Sci-L (4 cr)
Phys 3501—Statistical Physics, Sci (4 cr)
Phys 3993—Directed Study (1–5 cr)

Courses may not be taken S-N. A minimum GPA of 2.00 is required in the minor in order to graduate. The GPA includes all, and only, University of Minnesota course work. Grades of “F” are included in GPA calculation until they are replaced. No grades below C- are allowed.

Teacher Preparation Requirements

Students seeking teaching licensure in physics 9–12 should refer to the Education, Secondary (SeEd) section of this catalog.

Course Descriptions

Phys 1005. Journal Club I. (1 cr [max 2 cr]; S-N only; fall, every year)
Exposes freshman and sophomore students to current physics research topics. Students participate at presentations via discussion and are evaluated on a pass/fail basis only.

Phys 1052. The Solar System. (Sci-L; 5 cr; no cr for students who have received cr for Phys 1051; fall, every year)
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 1053. Introduction to Stars, Galaxies, and Cosmology. (Sci; 4 cr; spring, every year)
Gravity and electromagnetic radiation; nuclear physics; stellar properties; stellar evolution; galaxies; quasars; and cosmology. Stars and constellations of the winter sky. Night viewing sessions required. (4 hrs lect)

Phys 1061. Physics of Sound and Music. (Sci; 4 cr; fall, every year)
Wave characteristics, sound properties, resonance, the human voice and hearing, basic musical instruments, analysis and synthesis of complex waves, acoustics.

Phys 1062. Light and Color. (Sci; 4 cr; fall)
Introduction to the modern understanding of light and color. The wave and particle nature of light, light in modern physics (spectra, lasers, holography), atmospheric optics (blue sky, rainbows, ice crystal displays, etc.), the camera and photography, simple optical instruments (lenses, mirrors, eyeglasses, telescopes, binoculars), the human eye and vision, illusions, color, color perception and color theory. (4 hrs lect)

Phys 1091. Principles of Physics I. (Sci-L; 5 cr; prereq high school higher algebra; fall, every year)
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 1092. Principles of Physics II. (Sci-L; 5 cr; prereq 1091; spring, every year)
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 1101. General Physics I. (Sci-L; 5 cr; prereq Math 1101 or #; spring, every year)
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 1102. General Physics II. (Sci-L; 5 cr; prereq 1101, Math 1102 or #; fall, every year)
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 1993. Directed Study. (1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year)
An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.

Phys 2011. Modern Physics. (Sci-L; 5 cr; prereq 1102, Math 2401 or #; spring, every year)
Special relativity, quantum nature of matter and radiation, Bohr-Sommerfeld atom, atomic spectra, uncertainty principle, Schrodinger equation, hydrogen atom, electron spin, Pauli principle, periodic table, radioactivity, fission and fusion of nuclei, properties of nuclei. (4 hrs lect, 3 hrs lab)

Phys 2201. Circuits and Electronic Devices. (Sci-L; 4 cr; prereq 1102 or #; spring, every year)
A hands-on practical course in electronics. Analog electronics including AC and DC circuit analysis, passive circuit elements, pn junctions, transistors, and op-amp circuits. Digital electronics including combinational logic, sequential logic, memory, CPU, and assembly programming. (3 hrs lect, 3 hrs lab)

Phys 2993. Directed Study. (1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year)
An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.

Phys 3001. Astrophysics. (Sci; 4 cr; prereq 2101; offered when feasible; fall, spring)
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 3002. Biological and Medical Physics. (Sci; 4 cr; prereq 1101, 1102; 2101 recommended; fall, spring)
Selected topics in biophysics with an emphasis on modern medical imaging techniques. Biophysical topics include fluid flow in cardiovascular systems, molecular transport, and the nervous system. Physics techniques covered include electrocardiography, microscopy, x-ray imaging, magnetic resonance imaging, ultrasound imaging, computer tomography, and image reconstruction.

Phys 3003. Computer Modeling of Materials. (Sci; 4 cr; prereq 1101, 1102; offered when feasible; spring)
The description of materials as assemblies of microscopic particles. The various approximations for interparticular forces and their use in order to gain insight into the behavior of the macroscopic system. Aspects of molecular dynamics simulations and Monte Carlo simulations in various statistical ensembles. Projects include questions from experimental research.

Phys 3005. Journal Club II. (1 cr [max 2 cr]; prereq 1101, 1102; A-F only; fall, every year)
Introduction to current physics research topics not typically found in the standard physics curriculum. Investigation into one of these topics and a short public presentation. Exposes students investigating physics as a possible major or minor to presentation and literature searching techniques and helps build skills necessary for senior seminar.

Phys 3101. Classical Mechanics. (Sci; 4 cr; prereq 2101, Math 2101 or #; fall, even years)
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 3201. Mathematical Methods in Physics. (Sci; 4 cr; prereq Math 2101; fall, even years)
Complex analytic functions, Taylor and Laurent series, calculus of residues, Fourier series and integrals, series solutions of differential equations, partial differential equations, special functions, applications to physics. (4 hrs lect)

Phys 3301. Optics. (Sci-L; 4 cr; prereq 2101; spring, even years)
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 3401. Experimental Physics. (Sci-L; 4 cr; prereq 2101; fall, odd years)
An introduction to modern experimental methods. (3 hrs lect, 3 hrs lab)

Phys 3501. Statistical Physics. (Sci; 4 cr; prereq 2101; spring, odd years)
Probability distributions, statistical ensembles, statistical thermodynamics, ideal gases, quantum statistics, kinetic theory of transport phenomena. (4 hrs lect)

Phys 3993. Directed Study. (1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year)
An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.

Phys 4101. Electromagnetism. (Sci; 4 cr; prereq 2101, Math 2101 or #; fall, odd years)
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 4201. Quantum Mechanics.** (Sci; 4 cr; prereq 2101, Math 2101; spring, every year)
Uncertainty principle, Schroedinger 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 4901. Senior Thesis.** (1 cr; prereq sr; course begins in fall and runs all year; fall, every year)
Capstone experience in physics. Investigation of a selected topic of current interest in physics. Presentation of results orally and in writing.

**Phys 4993. Directed Study.** (1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year)
An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.

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### 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.

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### 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. Students majoring in Political Science are required to complete any two of the four introductory courses:

- Pol 1101—Introduction to Political Inquiry: Thinking about Politics
- Pol 1201—American Government and Politics
- Pol 1301—Comparative Politics
- Pol 1401—World Politics

Political science majors must also 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)
- 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 3xxx 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 3xxx or 4xxx courses (Pol 4902 not eligible)
- Pol 4902—Senior Research Seminar in International Relations and Comparative Politics

**Subfield III: Political Theory**

- Pol 1101—Introduction to Political Inquiry: Thinking about Politics
- 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)
- 4 additional elective credits in Pol 3xxx or 4xxx courses (Pol 4903 not eligible)
- Pol 4903—Senior Research Seminar in Political Theory

No grades below C- are allowed. A minimum GPA of 2.00 is required in the major in order to graduate. The GPA includes all, and only, University of Minnesota course work. Grades of “F” are included in GPA calculation until they are replaced.

The political science discipline strongly recommends that students take advantage of opportunities in internships, field studies, and study abroad.
Political Science

Minor Requirements
The political science minor requires at least 20 political science credits. Minors must complete any 1 of the 4 introductory courses:
- Pol 1101 — Introduction to Political Inquiry: Thinking about Politics
- Pol 1201 — American Government and Politics
- Pol 1301 — Comparative Politics
- Pol 1401 — World Politics
At least 8 of the 20 must be upper division Pol 3xxx or 4xxx credits
No grades below C- are allowed. A minimum GPA of 2.00 is required in the minor in order to graduate. The GPA includes all, and only, University of Minnesota course work. Grades of “F” are included in GPA calculation until they are replaced.

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 1101. Introduction to Political Inquiry: Thinking about Politics. [E/CR; 4 cr; fall, every year]
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 1201. American Government and Politics. [E/CR; 4 cr; fall, spring, every year]
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 1301. Comparative Politics. [IP; 4 cr; spring, every year]
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 1401. World Politics. [IP; 4 cr; fall, every year]
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 1993. Directed Study. [(1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year)]
An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.

Pol 2993. Directed Study. [(1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year)]
An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.

Pol 3101. Political Science Analysis. (SS; 4 cr; prereq Stat 1601 or Stat 2601 or #; spring, every year)
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 3201. Legislative Process. (SS; 4 cr; prereq 1201 or #; Stat 1601 or Stat 2601 recommended; fall, every year)
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 3231. Constitutional Law: Civil Liberties and Civil Rights. (HDiv; 4 cr; prereq 1201 or #; spring, even years)
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 3232. Constitutional Law: Governmental Powers and Constraints. (SS; 4 cr; prereq 1201 or #; spring, odd years)
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 3251. Political Participation and Voting Behavior. (SS; 4 cr; prereq 1201 or #; fall, even years)
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 3261. State and Local Politics. (SS; 4 cr; prereq 1201 or #; spring, even years)
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 3262. Minorities and Public Policy. (HDiv; 4 cr; prereq 1201 or #; fall, even years)
Analysis of the ways race, ethnicity, and other factors shape political engagement; their implications for public policy and the policy process.

Pol 3263. Political Psychology. (SS; 4 cr; prereq 1201; Psy 1051 or # recommended; fall, odd years)
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 3267. Courtroom Proceedings in American State Courts. (SS; 4 cr; prereq 1201 or #; offered when feasible; summer) 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 courts at both the trial and appellate level. (Continuing Education course)

Pol 3351. Political Thought: Ancient and Middle Ages. (Hum; 4 cr; prereq 1101 or #; spring, every year) 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 3352. Political Thought: Modern. (Hum; 4 cr; prereq 1101 or #; spring, odd years) Machiavelli; theories during the Renaissance, Reformation, and the Counter-Reformation. Early modern absolutism, the emergence of modern contract theory, constitutionalism, liberalism, and utopianism.

Pol 3353. American Political Thought. (Hum; 4 cr; prereq 1101 or #; spring, odd years) Development of the American political tradition from the Puritan theocracy to recent phases of American political life.

Pol 3401. U.S. Foreign Policy. (SS; 4 cr; prereq 1401 or #; fall, every year) 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 3411. International Law. (E/CR; 4 cr; prereq 1401 or #; spring, every year) 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 3421. International Organizations. (E/CR; 4 cr; prereq 1401 or #; spring, odd years) 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 3453. Russian Politics and Foreign Policy. (IP; 4 cr; prereq 1401 or #; spring, even years) Domestic and foreign policies of the former Soviet Union from the Bolshevik Revolution to the present. Nature of the Soviet empire, implosion of the Soviet Union, Russian Federalism, democratic and market reforms, ethnic conflicts, nuclear strategy, military policy, and diplomatic style.

Pol 3461. Diplomatic Negotiations. (IP; 4 cr; offered when feasible; summer) This course focuses on the origins and nature of modern diplomacy and the art of diplomatic negotiations. The course consists of three components: (1) the theory and practice of diplomatic negotiation; (2) negotiating styles; and (3) simulation of diplomatic negotiations (bilateral and multilateral negotiations, international conference, summity, and mediation). This course is unique in that almost half of the course will be devoted to simulations/mock conferences and that students will gain first-hand knowledge of and valuable insights into diplomacy and negotiation through simulation. (Continuing Education course)
each as political actors. Areas of discretion in the legal system. Extra-legal predictors of judicial decision making and certiorari voting.

Pol 4264. American Political Culture. (Hist; 4 cr; prereq 1201 or Hist 1201; spring, odd years) 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 4266. Media and Politics. (SS; 4 cr; prereq 1201 or Hist 1201; spring, even years) Relationships between mass media, government, and public in American Democracy. Democratic theory and media/press, role of informed citizenry in theories of U.S. democracy, role of media in informing the U.S. citizenry. Ways media influences public opinion, relationship of media, public opinion, and elites in politics.

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

Pol 4451. Comparative Foreign Policy. (IP; 4 cr; prereq 1401 or IP 1401; spring, every year) Comparative examinations of foreign policies of selected countries, i.e., the United States, China, and Russia (the Soviet Union). The rise and fall of the Cold War; the triangular relationship between Washington, Beijing, and Moscow; Russia’s new foreign policy; and U.S. foreign and security policy in the post-Cold War era.

Pol 4452. International Relations Theory. (IP; 4 cr; prereq 1401 or Hum 1401; offered when feasible; fall, spring) Theory and practice of contemporary international relations. Realism and idealism, national power, systems theory, integration theory, war and peace, conflict resolution, and the world government.

Pol 4503. Women in Politics Worldwide. (IP; 4 cr; prereq 1201, 2101 or Hist 2101; spring, even years) 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.

Pol 4507. Politics, Violence, Terrorism, and Peace. (IP; 4 cr; prereq 1301 or Hist 1301; spring, even years) Examination of causes, processes, and outcomes of violent social conflict, including repression, mass political protests, riot revolt, terrorism, and revolution.

Pol 4901. Senior Research Seminar in American Government. (SS; 4 cr; prereq ar, 1201 or Hist 1201; fall, every year) Guided research in American political institutions and processes. With the assistance of a faculty member, each student formulates testable research questions about some aspect of American government, develops a research design to address those questions, conducts a literature review, gathers data (either quantitative or qualitative), tests the hypotheses, writes up the findings, and makes an oral presentation of the work to the discipline faculty and graduating seniors.

Pol 4902. Senior Research Seminar in International Relations and Comparative Politics. (IP; 4 cr; prereq sr, 1301 or 1401 or Hum 1401; fall, every year) Guided research in international relations and comparative politics. With the assistance of a faculty member, each student formulates testable research questions about some aspect of international relations and comparative politics, develops a research design to address those questions, conducts a literature review, gathers data (either quantitative or qualitative), tests the hypotheses, writes up the findings, and makes an oral presentation of the work to the discipline faculty and graduating seniors.

Pol 4903. Senior Research Seminar in Political Theory. (Hum; 4 cr; prereq sr, 1101 or Hist 1101; fall, every year) 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 4993. Directed Study. (1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year) An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.

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
Division Structure and Course Descriptions

**Learning and Cognition**
At least one course from:
- Psy 3101—Learning Theory and Behavior
- Modification
- Psy 3111—Sensation and Perception
- Psy 3112—Cognition

**Biological and Comparative Psychology**
At least one course from:
- Psy 3201—Comparative Psychology
- Psy 3211—Biological Psychology
- Psy 3221—Behavioral Biology of Women
- Psy 3521—Health Psychology

**Personality and Clinical Psychology**
At least one course from:
- Psy 3302—Personality
- Psy 3313—Psychopathology
- Psy 4101—Helping Relationships

**Developmental Psychology**
At least one course from:
- Psy 2411—Introduction to Lifespan Developmental Psychology
- Psy 3401—Developmental Psychology I: Child Psychology
- Psy 3402—Developmental Psychology II: Adolescence
- Psy 3403—Developmental Psychology III: Adulthood, Aging, and Death
- Psy 3051—Psychology of Women and Gender

**Social and Applied Psychology**
At least one course from:
- Psy 3501—Social Psychology
- Psy 3502—Psychology and Law
- Psy 3513—Negotiation
- Psy 3541—Cultural and Cross-Cultural Psychology
- Psy 3701—Organizational Behavior
- Psy 3702—Personnel Psychology
- Pol 3263—Political Psychology

**Advanced Seminar in Psychology**
At least one course from:
- Psy 4910—Advanced Seminar in Cognitive Psychology
- Psy 4920—Advanced Seminar in Biological or Comparative Psychology
- Psy 4930—Advanced Seminar in Personality or Clinical Psychology
- Psy 4940—Advanced Seminar in Developmental Psychology
- Psy 4950—Advanced Seminar in Social Psychology
- Psy 4960—Advanced Seminar in Health Psychology

Additional elective credits to total at least 42 credits in the major (including required courses). Electives may be selected from any category above (except Advanced Seminars) and the following:
- Psy 3611—History and Philosophy of Psychology
- Psy 4896—Field Experiences in Psychology
- Psy 2993, 3993, 4993—Directed Study
- Stat 3601—Data Analysis
- Stat 3611—Multivariate Statistics
- IS 3800—Practicum in Social Sciences
- IS 4101—Introduction to Professional Conduct Codes, Legal Constraints, and Ethics in the Human Services
- Psy 3800—Research Practicum

No grades below C- are allowed. A minimum GPA of 2.00 is required in the major in order to graduate. The GPA includes all, and only, University of Minnesota course work. Grades of “F” are included in GPA calculation until they are replaced.

**Minor Requirements**
- Psy 1051—Introduction to Psychology
- Psy 2001—Research Methods in Psychology
- Stat 1601—Introduction to Statistics or Stat 2601—Statistical Methods

At least one course from four of the five following areas. At least one must be a designated lab course:

**Learning and Cognition**
- Psy 3101—Learning Theory and Behavior Modification
- Psy 3111—Sensation and Perception
- Psy 3112—Cognition

**Biological and Comparative Psychology**
- Psy 3201—Comparative Psychology
- Psy 3211—Biological Psychology
- Psy 3221—Behavioral Biology of Women
- Psy 3521—Health Psychology

**Personality and Clinical Psychology**
- Psy 3302—Personality
- Psy 3313—Psychopathology
- Psy 4101—Helping Relationships

**Developmental Psychology**
- Psy 2411—Introduction to Lifespan Developmental Psychology
- Psy 3401—Developmental Psychology I: Child Psychology
- Psy 3402—Developmental Psychology II: Adolescence
- Psy 3403—Developmental Psychology III: Adulthood, Aging, and Death
- Psy 3051—Psychology of Women and Gender

**Social and Applied Psychology**
- Psy 3501—Social Psychology
- Psy 3502—Psychology and Law
- Psy 3513—Negotiation
- Psy 3541—Cultural and Cross-Cultural Psychology
Psy 3701—Organizational Behavior
Psy 3702—Personnel Psychology
Pol 3263—Political Psychology

Additional elective credits to total at least 30 credits in the minor (including required courses). Electives may be selected from any category above and the following:

Psy 3611—History and Philosophy of Psychology
Psy 4896—Field Experiences in Psychology
Psy 2993, 3993, 4993—Directed Study
Stat 3601—Data Analysis
Stat 3611—Multivariate Statistics
IS 3800—Practicum in Social Sciences
IS 4101—Introduction to Professional Conduct Codes, Legal Constraints, and Ethics in the Human Services

Psy 3800—Research Practicum

No grades below C- are allowed. A minimum GPA of 2.00 is required in the minor in order to graduate. The GPA includes all, and only, University of Minnesota course work. Grades of “F” are included in GPA calculation until they are replaced.

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 1051. Introduction to Psychology. (SS; 4 cr; fall, spring, every year)
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 1061. Introduction to the Development of the Child and Adolescent. (SS; 4 cr; prereq 1051 or #; spring, every year)
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 1071. Human Sexuality. (SS; 4 cr; fall, every year)
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 child birth; contraception and disease prevention; sexual coercion and abuse; sexual dysfunctions and their treatment.

Psy 1081. Drugs and Human Behavior. (SS; 2 cr; spring, every year)
Survey of psychoactive drugs, their effects on mind and behavior, and prevention and treatment of drug abuse.

Psy 1993. Directed Study. (1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year)
An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.

Psy 2001. Research Methods in Psychology. (SS; 4 cr; prereq 1051, Stat 1601 or Stat 2601 or #; fall, spring, every year)
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 2411. Introduction to Lifespan Developmental Psychology. (SS; 4 cr; =[Psy 3401/3402/3403]; prereq 1051; counts as elective cr for the Psy major or minor, and psy elective for the LAHS major; fall, every year)
An introduction to theory, data, and research approaches in development from the prenatal period through childhood, adolescence, adulthood, and aging until the cessation of life. Includes physical, perceptual, cognitive, language, moral, personality, socio-emotional, family, and career development and changes over time, as well as issues of death, dying, and bereavement. Includes a multicultural focus. Students who intend a deeper focus in developmental psychology should consider 3401-3402-3403, an upper-division alternative to this course.

Psy 2993. Directed Study. (1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year)
An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.

Psy 3051. The Psychology of Women and Gender. (HDiv; 4 cr; prereq 1051 or #; spring, every year)
Exploration of the interactive biological, psychological, and socio-cultural processes that shape the lives of women and the experience of gender. Topics include: the psychobiology of sex; the social construction of sex and gender; socialization and development; media representations; identity and sexuality; language and communication; motivation and personality; relationships; work and family lives; mental and physical health; mid- and later life development; victimization; therapy; intersections of race, class, and gender; and feminist approaches to teaching, learning, and knowing.

Psy 3101. Learning Theory and Behavior Modification. (SS; 4 cr; prereq 2001 or #; fall, every year)
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 3111. Sensation and Perception. (SS; 4 cr; prereq 2001 or #; fall, every year)
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 3112. Cognition.** (SS; 4 cr; prereq 2001 or #; spring, every year)
Empirical study of memory, language behaviors, representation of knowledge, judgment, decision making, problem solving, and creative thinking. Includes lab.

**Psy 3201. Comparative Psychology.** (Sci-L; 4 cr; prereq 1051, 2001 or Biol 2111; spring, every year)
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 3211. Biological Psychology.** (Sci-L; 5 cr; prereq 1051, 2001 or Biol 1101 or Biol 1111; fall, every year)
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 3221. Behavioral Biology of Women.** (Sci; 2 cr; prereq 3211 or Biol 2111 or #; offered when feasible; fall, spring)
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 3302. Personality.** (SS; 4 cr; prereq 1051, Stat 1601 or Stat 2001 or #; spring, every year)
Nature of personality constructs and theories. Conscious vs. unconscious processes; emotion and motivation; nature and measurement of personal traits; their dimensional structure, stability, development, and heritability.

**Psy 3313. Psychopathology.** (SS; 4 cr; prereq 3302, Stat 1601 or Stat 2601; spring, every year)
Psychological disorders and their treatment, including anxiety, personality, affective, schizophrenic, and other recognized disorders of children and adults.

**Psy 3401. Developmental Psychology I: Child Psychology.** (SS; 4 cr; prereq 1051 or #; fall, every year)
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 3402. Developmental Psychology II: Adolescence.** (SS; 2 cr; prereq 1051 or #; spring, every year)
Theory, data, and research in adolescent development with emphasis on physical, cognitive, and social development.

**Psy 3403. Developmental Psychology III: Adulthood, Aging, and Death.** (E/CR; 4 cr; prereq 1051 or #; fall, every year)
An overview of current concepts, theories, and methods in the study of adult development and aging. Provides students with an applied-learning experience through a service learning component. Theoretical and methodological content is integrated with service learning, involving approximately one hour per week of work outside the classroom. Focus is on individual biological and social-psychological development, but also incorporates historical, sociological, and anthropological perspectives where appropriate.

**Psy 3501. Social Psychology.** (SS; 4 cr; prereq 1051 or Soc 1101 or #; fall, every year)
Theories and research in the study of interpersonal behavior. Topics include aggression, prejudice, altruism, persuasion, group dynamics, and social influence.

**Psy 3502. Psychology and Law.** (SS; 2 cr; prereq 3501; spring, odd years)
A psychological perspective to the law and to the legal system. Topics include jury decision making, forensic psychology, and trial processes.

**Psy 3513. Negotiation.** (SS; 4 cr; =Mgmt 3513; prereq 3501 or Mgmt 3221 or Psy/Mgmt 3701; spring, even years)
Same as Mgmt 3513. Examines the theoretical and applied aspects of negotiation. Topics include negotiation theory, strategy, skills and tactics, communication processes, global negotiation, and ethics. Use of negotiation simulations.

**Psy 3521. Health Psychology.** (SS; 4 cr; prereq 1051; spring, every year)
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 3541. Cultural and Cross-Cultural Psychology.** (Hist; 2 cr; prereq 1051 or 3302 or 3313 or 3401 or 3402 or 3403 or 3501 or 3521 or #; fall, every year)
Theoretical and methodological approaches to the study of human psychological diversity and cultural differences in psychological functioning. Topics may include: the cultural psychology of the self, emotions, cognition, and morality; cross-cultural human development; culture and mental health; the history of cultural/cross-cultural psychology; the indigenous psychology movement; and community-based approaches to race, ethnicity, and psychology.

**Psy 3611. History and Philosophy of Psychology.** (Hist; 2 cr; prereq 1051; spring)
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 existential movements and their modern syntheses.

**Psy 3701. Organizational Behavior.** (SS; 4 cr; =Mgmt 3701; prereq # or #; fall, spring)
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 3702. Personnel Psychology. (SS; 2 cr; = [Mgmt 3702]; prereq Psy/Mgmt 3701; spring, odd years) 
Same as Mgmt 3702. Focus on a behavioral science perspective to understanding personnel issues within organizations. Topics include performance appraisal, training and development, selection, and job analysis.

Psy 3800. Research Practicum. (1–6 cr [max 6 cr]; prereq #: fall, spring, every year) 
Research activity carried out under the supervision of a psychology faculty member.

Psy 3993. Directed Study. (1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year) 
An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.

Psy 4101. Helping Relationships. (SS; 4 cr; prereq 3302; fall, spring, every year) 
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 4896. Field Experiences in Psychology. (SS; 1–4 cr [max 4 cr]; prereq #, which normally requires 4101 for work in psychiatric settings, 3302, 3401 or 3402 for work in schools; SS [if taken for 2 or more cr]; only 4 cr may be applied to the BA sr status, #; A-F only; fall, spring, every year)

Individually arranged, supervised observation of and assistance with activities of professional psychologists in schools, clinics, hospitals, and other field settings.

Psy 4910. Advanced Seminar in Cognitive Psychology. (SS; 4 cr; = [Psy 4710]; prereq 2001, 3111 or 3112, sr status, #: A-F only; fall, every year)
Advanced seminar on selected topics in the area of Cognitive Psychology. Members of the seminar read and discuss primary source material on a topic of common interest. In addition, each student investigates a related topic in greater depth. The student writes a paper and gives a public presentation based on the in-depth investigation.

Psy 4920. Advanced Seminar in Biological or Comparative Psychology. (SS; 4 cr; = [Psy 4720]; prereq 2001, 3201 or 3211, sr status, #: A-F only; spring, every year)
Advanced seminar on selected topics in the area of Biological and Comparative Psychology. Members of the seminar read and discuss primary source material on a topic of common interest. In addition, each student investigates a related topic in greater depth. The student writes a paper and gives a public presentation based on the in-depth investigation.

Psy 4930. Advanced Seminar in Personality or Clinical Psychology. (SS; 4 cr; = [Psy 4730]; prereq 2001, 3302 or 3313, sr status, #: A-F only; spring, every year)
Advanced seminar on selected topics in the area of Personality or Clinical Psychology. Members of the seminar read and discuss primary source material on a topic of common interest. In addition, each student investigates a related topic in greater depth. The student writes a paper and gives a public presentation based on the in-depth investigation.

Psy 4940. Advanced Seminar in Developmental Psychology. (SS; 4 cr; = [Psy 4740]; prereq 2001, 3401 or 3402 or 3403, sr status, #: A-F only; fall, every year)
Advanced seminar on selected topics in the area of Developmental Psychology. Members of the seminar read and discuss primary source material on a topic of common interest. In addition, each student investigates a related topic in greater depth. The student writes a paper and gives a public presentation based on the in-depth investigation.

Psy 4950. Advanced Seminar in Social Psychology. (SS; 4 cr; = [Psy 4750]; prereq 2001, 3501, sr status, #: A-F only; spring, every year)
Advanced seminar on selected topics in the area of Social Psychology. Members of the seminar read and discuss primary source material on a topic of common interest. In addition, each student investigates a related topic in greater depth. The student writes a paper and gives a public presentation based on the in-depth investigation.

Psy 4960. Advanced Seminar in Health Psychology. (SS; 4 cr; = [Psy 4760]; prereq 2001, 3302 or 3313, sr status, #: A-F only; fall, every year)
Advanced seminar on selected topics in the area of Health Psychology. Members of the seminar read and discuss primary source material on a topic of common interest. In addition, each student investigates a related topic in greater depth. The student writes a paper and gives a public presentation based on the in-depth investigation.

Psy 4993. Directed Study. (1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year)
An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.

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 2001—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

No grades below C- are allowed. A minimum GPA of 2.00 is required in the major in order to graduate. The GPA includes all, and only, University of Minnesota course work. Grades of “F” are included in GPA calculation until they are replaced.

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, Math 1101, 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, with at least one of these in a non-Western area.

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 4501 or Mgmt x993 can be applied to the area of focus.

Political Science—In addition to Pol 1201, the area of focus includes 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 18 additional credits from the courses listed below, with at least one course from four of the five following areas. At least one must be a designated lab course:

Learning and Cognition
- Psy 3101—Learning Theory and Behavior Modification
- Psy 3111—Sensation and Perception
- Psy 3112—Cognition

Biological and Comparative Psychology
- Psy 3201—Comparative Psychology
- Psy 3211—Biological Psychology
- Psy 3221—Behavioral Biology of Women
- Psy 3521—Health Psychology

Personality and Clinical Psychology
- Psy 3302—Personality
- Psy 3313—Psychopathology
- Psy 4101—Helping Relationships

Developmental Psychology
- Psy 2411—Introduction to Lifespan Developmental Psychology
- Psy 3401—Developmental Psychology I: Child Psychology
- Psy 3402—Developmental Psychology II: Adolescence
- Psy 3403—Developmental Psychology III: Adulthood, Aging, and Death
- Psy 3051—Psychology of Women and Gender

Social and Applied Psychology
- Psy 3501—Social Psychology
- Psy 3502—Psychology and Law
- Psy 3513—Negotiation
- Psy 3541—Cultural and Cross-cultural Psychology
- Psy 3701—Organizational Behavior
- Psy 3702—Personnel Psychology
- Pol 3263—Political Psychology

Additional elective credits to total at least 26 credits in the Psychology area of focus (including required courses). Electives may be selected from any category above and from the following:

- Psy 3611—History and Philosophy of Psychology
- Psy 4896—Field Experiences in Psychology
- Psy 3993, 4993—Directed Study
- Stat 3601—Data Analysis
- Stat 3611—Multivariate Statistics
- IS 3800—Practicum in Social Sciences
- IS 4101—Introduction to Professional Conduct Codes, Legal Constraints, and Ethics in the Human Services
- Psy 3800—Research Practicum

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 4901 and Soc 4902 are highly recommended.

Women’s Studies—The area of focus requires WoSt 1101 and an additional 24 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 1111. Introductory Cultural Anthropology.** (SS; 4 cr; fall, spring, every year)
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 1112. Principles of Macroeconomics.** (SS; 4 cr; prereq high school algebra or #; fall, spring, every year)
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 1951. Seminar for Social Science Majors.**
(1 cr; prereq 1112; no cr for students who are concurrently enrolled in or have received cr for 3xxx Econ courses; S-N only; fall, spring, every year)
Familiarization with various journals, periodicals, and sources of statistical information that deal with current developments in economics.

**Geog 2001. Problems in Geography.** (Env; 4 cr; spring, every year)
Basic concepts and questions in the field of geography. The terminology and approaches of geographical inquiry and analysis, with emphasis on the spatial patterns and arrangements of human interaction with the landscape and the production of geographical knowledge.

**Hist 1301. Introduction to U.S. History.** (Hist; 4 cr; fall, every year)
Methods, themes, and problems in the study of the history of the United States.

**Pol 1201. American Government and Politics.** (E/CR; 4 cr; fall, spring, every year)
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 1051. Introduction to Psychology.** (SS; 4 cr; fall, spring, every year)
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 1101. Introductory Sociology.** (SS; 4 cr; fall, spring, every year)
Basic concepts, theories, and methods of sociology; survey of some of the institutional areas in which sociologists specialize.

**Stat 1601. Introduction to Statistics.** (M/SR; 4 cr; prereq high school algebra; fall, spring, every year)
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 to the theories, methods, and data of sociology. Courses are designed to meet the needs of liberal arts students and those 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 must include:

- Soc 1101—Introductory Sociology
- Soc 4901—Independent Project Seminar I
- Soc 4902—Independent Project Seminar II

**One course from:**

- Soc 3101—Qualitative Research Methodology
- Soc 3102—Quantitative Research Methodology

**One course from:**

- Soc 3401—Classical Sociological Theory
- Soc 3402—Contemporary Sociological Theory

**All four of the above courses are recommended.**

**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 or D+ may be used to meet the Major Requirements if offset by an equivalent number of credits of A or B. A minimum GPA of 2.00 is required in the major in order to graduate. The GPA includes all, and only, University of Minnesota course work. Grades of “F” are included in GPA calculation until they are replaced.
Minor Requirements
A minimum of 6 courses (24 credits) in sociology and anthropology, including:
Soc 1101—Introductory Sociology
Soc 3101—Qualitative Research Methodology
or Soc 3102—Quantitative Research Methodology
Soc 3401—Classical Sociological Theory
or Soc 3402—Contemporary Sociological Theory
Three anthropology or sociology electives
Soc 4901—Independent Project Seminar I and Soc 4902—Independent Project Seminar II are highly recommended
Up to 4 credits of coursework with a grade of D or D+ may be used to meet the minor requirements if offset by an equivalent number of credits of A or B.
A minimum GPA of 2.00 is required in the minor in order to graduate. The GPA includes all, and only, University of Minnesota course work. Grades of "F" are included in GPA calculation until they are replaced.

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 3204, 3451, 3452, 3601, and 3602 may also be taken for credit in Anthropology.
Soc 1101. Introductory Sociology. (SS; 4 cr; fall, spring, every year)
Basic concepts, theories, and methods of sociology; survey of some of the institutional areas in which sociologists specialize.
Soc 1993. Directed Study. (1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year)
Individualized on- or off-campus research project or other learning activity not covered in the regular Sociology curriculum. Topic determined by the student and instructor.
Soc 2101. Systems of Oppression. (HDiv; 4 cr; prereq 1101 or Anth 1111 or #; fall, every year)
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 2993. Directed Study. (1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year)
Individualized on- or off-campus research project or other learning activity not covered in the regular Sociology curriculum. Topic determined by the student and instructor.
Soc 3101. Qualitative Research Methodology. (4 cr; prereq 1101; fall, every year)
Introduction to qualitative research procedures used in sociology. Overview of qualitative techniques in context of professional sociological research and student research design.
Soc 3102. Quantitative Research Methodology. (4 cr; prereq 1101; spring, every year)
Practical issues in quantitative sociological research; quantitative research project design, sociological statistics, data analysis, SPSS, reporting, and presentation.
Soc 3111. Sociology of Modernization. (IP; 4 cr; prereq 1101 or Anth 1111 or #; spring, every year)
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 3121. Sociology of Gender. (HDiv; 4 cr; prereq 1101 or Anth 1111 or #; fall, every year)
An introduction to the sociological study of gender. Focus on gender difference and gender inequality. Analysis of the changing roles, opportunities, and expectations of women and men as their societies (and subsequently, gender relations and power) undergo change in today’s world. Theoretical overview and an examination of how gender affects everyday experiences.
Soc 3122. Sociology of Childhoods. (HDiv; 4 cr; prereq 1101 or #; spring, odd years)
Introduction to the sociological study of childhoods. Examination of the interaction between societies and their youngest members—how societies shape children’s lives through social institutions such as families, education, and the state. A close look at children’s access to privileges and resources as determined by children’s experiences of race, gender, class, nationality, and sexual orientation.
Soc 3131. World Population. (Env; 4 cr; prereq 1101 or #; fall, every year)
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 3141. Sociology of Deviance. (SOC; 4 cr; prereq 1101 or #; spring, every year)
An introduction to the sociological study of deviance. Explore the social reality of deviance within contemporary society and examine the social construction of deviant categories. Specific focus on images of deviance as social constructs, rather than as intrinsic elements of human behavior. Investigation of the complex relationships between individual behavior and social structure, with a focus on power, inequality, and oppression. Also, an examination of the socio-cultural definitions of morality and behavior.
Soc 3204. Culture, Food, and Agriculture. (Env; 4 cr; =[Anth 3204]; prereq 1101 or Anth 1111 or #; spring, every year)
Same as Anth 3204. Examines the globalization of food systems utilizing the political ecology of food to understand global and local dimensions of production, marketing, and consumption. Emphasis on connections between food production and national identity, relations of power, genetic engineering, environmental destruction, the politics of world hunger, and local efforts to achieve sustainability.
Soc 3251. African Americans. (HDIV; 4 cr; prereq 1101 or Anth 1111; offered when feasible; fall, spring) Examination of African American religious, economic, political, family, and kinship institutions in the context of the greater American society. Struggles to overcome problems and the degree of success or failure of these struggles are examined and placed in historical context.

Soc 3252. Women in Muslim Society. (IP; 4 cr; prereq 1101 or Anth 1111; spring) The cultures and social statuses of women in several Muslim countries are examined and placed in their political, economic, and religious contexts.


Soc 3402. Contemporary Sociological Theory. (SS; 4 cr; prereq 1101; 4 addtl cr in Soc recommended; spring) 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 3451. Contemporary American Indians. (HDIV; 4 cr; = [Anth 3451]; prereq 1101 or Anth 1111 or #; fall, odd years) Same as Anth 3451. The cultures of contemporary Indian tribes in the United States. Government policies, gaming, urban populations, education, self-determination, and identity.

Soc 3452. American Indian Women. (HDIV; 4 cr; = [Anth 3452]; prereq 1101 or Anth 1111 or #; fall, every year) Same as Anth 3452. 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 3601. Social Change and Development in Latin America. (IP; 4 cr; = [Anth 3601]; prereq 1101 or Anth 1111 or #; spring, every year) Same as Anth 3601. 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.

Soc 3602. Women in Latin America. (IP; 4 cr; = [Anth 3602]; prereq 1101 or Anth 1111 or #; fall, odd years) Same as Anth 3602. Study of the 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, economic and political conditions, religion and women, etc.

Soc 3993. Directed Study. (1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year) Individualized on- or off-campus research project or other learning activity not covered in the regular Sociology curriculum. Topic determined by the student and instructor.

Soc 4100. Tutorial in Sociological Theory. (2–4 cr [max 8 cr]; prereq 3401 or 3402, 4 addtl cr in Soc recommended; fall, spring) Examines specific theorist(s). Topics vary according to student and staff interests and are announced in advance.

Soc 4901. Independent Project Seminar I. (1 cr; prereq 3101 or 3102, 3401 or 3402; A-F only; fall, every year) A capstone seminar to guide sociology majors in the completion of an independent study project; selection and definition of a research project; small-group and one-on-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 4902. Independent Project Seminar II. (3 cr; = [Soc 4991]; prereq 4901; A-F only; spring, every year) A capstone seminar to guide sociology majors in the completion of an independent study project; execution of a research project; small-group and one-on-one consultation and advising on conducting the research project planned in Soc 4901, developing a bibliography, relating relevant theoretical perspectives to research materials, organizing and writing a research paper.

Soc 4993. Directed Study. (1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year) Individualized on- or off-campus research project or other learning activity not covered in the regular Sociology curriculum. Topic determined by the student and instructor.

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—Spanish Composition and Conversation I
Span 3002—Spanish Composition and Conversation II
Span 3101—Introduction to Hispanic Literature
Span 3211—Literature and Culture of Latin America
Span 3212—Literature and Culture of Spain
Division Structure and Course Descriptions

Two additional 3xxx courses
Span 4001—Research Symposium
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
Required courses may not be taken S-N unless offered S-N only. No grades below C- are allowed. A minimum GPA of 2.00 is required in the major in order to graduate. The GPA includes all, and only, University of Minnesota course work. Grades of “F” are included in GPA calculation until they are replaced.
Students majoring in Spanish are encouraged to take at least one year of instruction in another foreign language.

Minor Requirements
Span 2001—Intermediate Spanish I
Span 2002—Intermediate Spanish II or equivalent
Span 3001—Spanish Composition and Conversation I
Span 3002—Spanish Composition and Conversation II
Span 3101—Introduction to Hispanic Literature
Three additional 32xx and/or 36xx courses
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
Required courses may not be taken S-N unless offered S-N only. No grades below C- are allowed. A minimum GPA of 2.00 is required in the minor in order to graduate. The GPA includes all, and only, University of Minnesota course work. Grades of “F” are included in GPA calculation until they are replaced.

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
Two additional courses chosen from LAAS and/or HUM courses offered by Spanish discipline faculty.
A foreign study experience is also 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—Spanish Composition and Conversation I
Span 3002—Spanish Composition and Conversation II
A foreign study experience, special projects in language, and regular use of the language lab are recommended to maintain language skills

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 1001. Beginning Spanish I. (FL; 4 cr; fall, summer, every year)
Development of basic skills of Spanish (reading, speaking, writing, listening) and an introduction to the cultural contexts of Latin America and Spain.
Span 1002. Beginning Spanish II. (FL; 4 cr; prereq 1001 or placement or #; fall, spring, every year)
Continuation of the sequence beginning with 1001.
Span 1311. Salvador Da Bahia, Brazil: Exploring Its African Identity. (IP; 2 cr; =[LAAS 1311]; offered when feasible; spring)
Same as LAAS 1311. Focus on how Afro-Brazilian cultural identity is created and maintained in the face of globalization and immigration in Salvador da Bahia, a city in northeastern Brazil that embraces a vigorous and invigorating ethnic and cultural diversity. [Continuing Education course]
Span 1993. Directed Study. (1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year)
An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.
Span 2001. Intermediate Spanish I. (IP; 4 cr; prereq 1002 or placement or #; fall, every year) Review and building of the four basic skills in Spanish with emphasis on critical reading skills and writing for communication.

Span 2002. Intermediate Spanish II. (IP; 4 cr; prereq 2001 or placement or #; spring, every year) Continuation of the sequence beginning with 2001.

Associated Languages: Introduction to a number of languages and cultures of the Iberian Peninsula and Latin America, such as Portuguese.

Span 2121. Associated Languages: Intensive Portuguese. (IP; 4 cr; prereq 2002 or Fren 2002 or #; offered when feasible) Intensive, accelerated study of the basic skills of Brazilian Portuguese (reading, writing, listening, and speaking) with emphasis on oral competency.

Span 2993. Directed Study. (1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year) An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.

Span 3001. Spanish Composition and Conversation I. (IP; 4 cr; prereq 2002 or #; fall, every year) Further review of the four skills in Spanish, with emphasis on: 1) development of greater competence and confidence in conversational Spanish; 2) greater precision and sophistication in written communication; and 3) analytical proficiency in reading selections from diverse literary and cultural contexts.

Span 3002. Spanish Composition and Conversation II. (IP; 4 cr; prereq 3001; spring, every year) Continuation of the sequence beginning with 3001.

Span 3101. Introduction to Hispanic Literature. (Hum; 4 cr; prereq 3001; prereq or coreq 3002 for majors; spring, every year) 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 3211. Literature and Culture of Latin America. (Hum; 4 cr; prereq 3002, 3101; fall) Study of important exemplary works of Latin American literary and cultural production through major historical periods. Texts are examined in light of multiple contexts, such as artistic, political, historical, and philosophical.

Span 3212. Literature and Culture of Spain. (Hum; 4 cr; prereq 3002, 3101; fall) Study of important exemplary works of Spanish (peninsular) literary and cultural production through major historical periods. Texts are examined in light of multiple contexts, such as artistic, political, historical, and philosophical.

Seminar: Courses numbered 36xx are seminars focused on specific areas of research in Latin American and Peninsular literature and culture. They are designed to complement the broad coverage of these areas in the two literature and culture courses by allowing students to choose courses in their areas of interest and study these areas more thoroughly.

Span 3601. Seminar: Reality Born on Paper in Colonial Latin America. (Hum; 4 cr; prereq 3002, 3101; offered when feasible; fall) Analysis of the multiple roles of writing during the conquest, the colonial period, and the era of independence and nation-building, as well as its vital importance in the shaping of Latin American “identity” and in the perception of the people and geography of the region.

Span 3602. Seminar: Contemporary. (Re-)Visions of Colonial Latin America. (Hum; 4 cr; prereq 3002, 3101; offered when feasible; fall) Study of the re-reading and re-writing of the Conquest and Colonial periods in Latin America, focusing on how these periods are approached, or fictionally reversed, by contemporary authors. Readings include narrative, poetry, and theater written during the 20th century, but based on or inspired by colonial texts.

Span 3621. Seminar: Confessions and Letters in Latin American Fiction. (Hum; 4 cr; prereq 3002, 3101; offered when feasible; spring) Study of confessions and letters in Latin American fiction. Fiction is seen as a combination of texts within other texts. The combination becomes part of the fictional game which imitates and enhances reality.

Span 3622. Seminar: Exile and Emigration in Latin American Fiction. (IP; 4 cr; prereq 3002, 3101; offered when feasible; fall) Study of contemporary Latin American literary texts where characters face forms of exile, abandonment, and displacement as a result of emigration to Europe and the United States.

Span 3623. Seminar: Ecology and Nature in Latin American Literature. (Env; 4 cr; prereq 3002, 3101; offered when feasible; fall) Study of Latin American texts where authors create characters that read or misread Nature and its preservation or extinction. How globalization is making this issue more relevant in the Latin American context.

Span 3651. Seminar: Miguel de Cervantes Saavedra’s El ingenioso hidalgo Don Quijote de la Mancha. (Hum; 4 cr; prereq 3002, 3101; offered when feasible; fall) Study of Miguel de Cervantes Saavedra’s novel El ingenioso hidalgo Don Quijote de la Mancha in light of its sociohistorical context.

Span 3652. Seminar: Literary Minorities in Early Modern Spain. (Hum; 4 cr; prereq 3002, 3101; offered when feasible; fall) Study of the representative literary works written by or about Spanish Jewish and Muslim minorities from the middle ages to the 17th century in light of their respective sociohistorical contexts.

Span 3653. Seminar: Maria de Zayas: Literary Violence in Golden Age Spain. (Hum; 4 cr; prereq 3002, 3101; offered when feasible; fall) Study of the major works of 17th-century writer María de Zayas y Sotomayor, The Enchantments of Love (1637) and The Disenchantments of Love (1647), in light of their sociohistorical contexts and the political issues surrounding the formation of literary canons.
Span 3654. Seminar: Sex, Love, and Marriage in Golden Age Spanish Literature. (Hum; 4 cr; prereq 3002, 3101; offered when feasible; fall) The theme of sex, love, and marriage in Golden Age Spanish Literature through prose, poetry, and theatre of the Golden Age (XVI–XVII centuries) Spain. Consideration of the gender relations and gender politics reflected in the works and the sociohistorical context in which these works were produced.

Span 3671. Seminar: Origins of the Spanish Character. (Hum; 4 cr; prereq 3002, 3101; offered when feasible; fall) Analysis of the Medieval and Golden Age roots of many of the beliefs and attitudes of contemporary Spain. Themes common to Spain, explored in both traditional and modern contexts, may include honor, patriotism, religion, idealism, individuality, satire, love, pride, etc.

Span 3672. Seminar: Reform in Spain: The Saint and the Journalist. (Hum; 4 cr; prereq 3002, 3101; offered when feasible; fall) Analyzing, comparing, and contrasting the lives and writings of St. Teresa of Avila (XVI Century) and Mariano José de Larra (XIX Century) as they worked toward a better Spain. Difficulties of religious and cultural reform as well as differences in traditional and enlightenment values are explored.

Span 3681. Seminar: Romanticism and Revolution in 19th-Century Spain. (Hum; 4 cr; prereq 3002, 3101; offered when feasible; fall) Study of representative texts (prose and poetry) from the first half of the 19th century in Spain, with emphasis on the expression of the Romantic vision within the particular political context of the period, marked by tensions between liberal reform and traditional conservatism.

Span 3682. Seminar: Realism and Reform in 19th-Century Spain. (Hum; 4 cr; prereq 3002, 3101; offered when feasible; fall) Study of representative texts (novels, stories, and essays) from the second half of the 19th century in Spain, with emphasis on the rise of realism as an exploration of the sociopolitical reality of the era and the need for reform. The focus is on general trends in Spanish literature (eg., industrialization, positivism, secularization).

Span 3683. Seminar: Modernity and Identity in Spain, 1900–1930. (Hum; 4 cr; prereq 3002, 3101; offered when feasible, fall) Study of representative texts (prose and poetry) from the early decades of the 20th century in Spain with particular emphasis on their responses to changes brought by modernity: advancing technology, modern psychology, political experimentation, spiritual exploration, and artistic innovation.

Span 3993. Directed Study. (1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year) An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.

Span 4001. Research Symposium. (Hum; 4 cr; prereq #; A-F only; fall, every year) A capstone experience for majors, consisting of an introduction to research methods and critical approaches to literature, as well as development of an independent research project and presentation.

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 communication, to promote the skills of lifelong learning for producers and consumers of messages, and 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, communication studies, and 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 Theories of Speech Communication

Major Core Courses
Spch 3011—History of Rhetoric From the Classical to Modern Periods
Spch 3301—Media Theory, Criticism, and Problems
Spch 3401—Human Communication Theory

One course from:
Spch 3111—History of Rhetoric in the Contemporary Period
Spch 3211—Public Address

One course from:
Spch 3311—Social Uses of the Media
Spch 3321—Television Broadcasting

One course from:
Spch 3411—Intercultural Communication Theory and Research
Spch 3421—Organizational Communication Theory and Research
One course from:
Spch 4151—Argumentation: Theory and Practice
Spch 4201—Persuasion: Receiver Analysis

**Elective**
One additional 3xxx or 4xxx Spch course.
Senior Capstone Experience

**Seniors must complete:**
Spch 4900—Speech Communication Seminar I
and Spch 4901—Speech Communication Seminar II

Up to 4 credits of coursework with a grade of D or D+ may be used to meet the Major Requirements if offset by an equivalent number of credits of A or B. Required courses may not be taken S-N. A minimum GPA of 2.00 is required in the major in order to graduate. The GPA includes all, and only, University of Minnesota course work. Grades of “F” are included in GPA calculation until they are replaced.

**Minor Requirements**
Spch 2101—Introduction to Theories of Speech Communication
One course from:
Spch 4151—Argumentation: Theory and Practice
Spch 4201—Persuasion: Receiver Analysis

One course from:
Spch 3101—History of Rhetoric From the Classical to Modern Periods
Spch 3111—History of Rhetoric in the Contemporary Period
Spch 3211—Public Address

One course from:
Spch 3301—Media Theory, Criticism, and Problems
Spch 3311—Social Uses of the Media
Spch 3321—Television Broadcasting

One course from:
Spch 3401—Human Communication Theory
Spch 3411—Intercultural Communication Theory and Research
Spch 3421—Organizational Communication Theory and Research

Up to 4 credits of coursework with a grade of D or D+ may be used to meet the Major Requirements if offset by an equivalent number of credits of A or B. Required courses may not be taken S-N. A minimum GPA of 2.00 is required in the minor in order to graduate. The GPA includes all, and only, University of Minnesota course work. Grades of “F” are included in GPA calculation until they are replaced.

**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.

**Course Descriptions**

**Spch 1042. Public Speaking and Analysis.** (E/CR; 4 cr; summer)
Public address theories, practices, and analysis.

**Spch 1052. Introduction to Public Speaking.** (E/CR; 2 cr; fall, every year)
Activities, assignments, and exercises related to public address/public speaking in a variety of speech settings.

**Spch 2052. Legal Advocacy: Speaking in Appellate Forensic Situations.** (E/CR; 4 cr; spring, odd years)
Detailed study of the theory and practice of speaking in legal settings. Students prepare and present appellate argument. The final presentation is before a mock Supreme Court.

**Spch 2101. Introduction to Theories of Speech Communication.** (Hum; 4 cr; spring, every year)
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 3071. Principles and Practices of Speech Communication.** (E/CR; 4 cr; prereq #; fall, every year)
Those seeking licensure in communication arts/literature, or others in education, develop mastery of the principles and practices of public speaking, small group communication, and interpersonal communication. Students learn, reflect, and apply their knowledge of the three settings for communication explicated through the course.

**Spch 3101. History of Rhetoric from the Classical to Modern Periods.** (IP; 4 cr; prereq 2101 or #; fall, every year)
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 #; spring)
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 3121. Rhetoric in the Movies: The Classic Genres.** (Hum; 4 cr; prereq 2101 or #; fall, odd years)
Investigation of the film genres of the Hollywood Studio system era. Students learn how films make meaning with their audiences.

**Spch 3211. Public Address.** (Hum; 4 cr; prereq 2101 or #; fall, every year)
Approaches to the analysis and evaluation of oral discourse with special emphasis on the role of speech in the creation of human society.

**Spch 3251. Free Speech on Trial: Communication Perspectives on Landmark Supreme Court Decisions.** (E/CR; 4 cr; prereq 2101 or #; fall, odd years)
Analysis and evaluation of Supreme Court opinions establishing the contours of First Amendment protection for freedom of speech. Particular attention is devoted to the nature of “communication” revealed by the decisions studied.

**Spch 3301. Media Theory, Criticism, and Problems.** (SS; 4 cr; prereq 2101 or #; spring, every year)
Theories, research studies, current trends, and various critical approaches to examine and explain the reflexive relationships between media and society.
Division Structure and Course Descriptions

**Spch 3311. Social Uses of the Media.** (E/CR; 4 cr; prereq 2101 or #: spring, every year)
Participation in the planning, production, and performance of television projects designed to serve various publics, such as campus units or the community.

**Spch 3321. Principles of Television Broadcasting.** (Hum; 4 cr; prereq 2101 or #: fall, every year)
Basic theories and practice: equipment, procedures, and skills associated with writing for and the production of televised broadcasting. Lectures, studio projects, class critiques.

**Spch 3331. Mass Media and Society.** (SS; 4 cr; prereq 2101 or #: fall, every year)
Examines the historical and on-going development of the relationship of media, culture, and the public. Traces and explores the developments of various communication technologies, their impacts and consequences, and their relationships to notions of “the public.”

**Spch 3401. Human Communication Theory.** (SS; 4 cr; prereq 2101 or #: fall, every year)
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 3411. Intercultural Communication Theory and Research.** (HDIV; 4 cr; prereq 2101 or #: fall, every year)
Study of intercultural communication from an interpersonal and group perspective.

**Spch 3421. Organizational Communication Theory and Research.** (SS; 4 cr; prereq 2101 or #: spring, every year)
Study of organizational communication, including small group perspectives.

**Spch 3993. Directed Study.** (1-5 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year)
An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.

**Spch 4151. Argumentation: Theory and Practice.** (Hum; 4 cr; prereq 2101 or #: fall, every year)
A study of rhetorical argument design and evaluation. Students analyze and critique arguments, as well as plan and present formal speeches.

**Spch 4201. Persuasion: Receiver Analysis.** (Hum; 4 cr; prereq 2101 or #: spring, every year)
Investigation of persuasion theory and research from rhetorical and social science perspectives. Students analyze particular instances of persuasive attempts.

**Spch 4800. Directed Experience in Teaching Speech Communication.** (1-4 cr [max 8 cr]; prereq #: S-N only; fall, spring, every year)
Practice as facilitators in the introductory-level speech courses; weekly seminar sessions focus on method, planning, and problems in speech communication instruction.

**Spch 4900. Speech Communication Seminar I.** (1 cr; prereq 2101, 3101, 3301, 3401, or sr status and #: A-F only; fall, every year)
Familiarizes students with the literature of the field, including ethical and social implications of communication studies. Students analyze various articles and similarly published works, synthesize contents, and construct a research proposal for a project to be completed as a senior capstone experience.

**Spch 4901. Speech Communication Seminar II.** (Hum; 3 cr; prereq 2101, 3101, 3301, 3401, 4900, or sr status in the major, #: A-F only; spring, every year)
Completion of capstone experience for majors. Students conduct a project of original study and present their findings in written and oral form.

**Spch 4993. Directed Study.** (1-5 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year)
An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.

**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.

Statistics is the science and art of enhancing knowledge in the face of uncertainty by modeling, predictions, and decisions. 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**

**Required Courses**

- Math 1101—Calculus I, M/SR (5 cr)
- Math 1102—Calculus II, M/SR (5 cr)
- Stat 2501—Probability and Stochastic Processes, M/SR (4 cr)
- Stat 2611—Mathematical Statistics, M/SR (4 cr)
- Stat 3601—Data Analysis, M/SR (4 cr)
- Stat 4901—Senior Seminar, M/SR (1 cr)
- Stat 1601—Introduction to Statistics, M/SR (4 cr) or Stat 2601—Statistical Methods, M/SR (4 cr)
**Elective Courses**

*Take 8 or more credit(s) from the following:*

- Stat 3611—Multivariate Statistical Analysis, M/SR (4 cr)
- Stat 4601—Biostatistics, M/SR (4 cr)
- Stat 4611—Statistical Consulting, M/SR (4 cr)
- Stat 4631—Design and Analysis of Experiments, M/SR (4 cr)
- Stat 4651—Applied Nonparametric Statistics, M/SR (4 cr)
- Stat 1993—Directed Study (1–5 cr)
- Stat 2993—Directed Study (1–5 cr)
- Stat 3993—Directed Study (1–5 cr)
- Stat 4993—Directed Study (1–5 cr)

**Additional Elective Courses**

*Take 4 or more credit(s) from the following:*

(Choose from the list below or from courses with faculty approval.)

- CSci 1301—Problem Solving and Algorithm Development, M/SR (4 cr)
- CSci 1302—Foundations of Computer Science, M/SR (4 cr)
- Econ 3501—Introduction to Econometrics, M/SR (4 cr)
- Math 2101—Calculus III, M/SR (4 cr)
- Math 2111—Linear Algebra, M/SR (4 cr)
- Math 2202—Mathematical Perspectives, M/SR (4 cr)
- Math 3221—Analysis, M/SR (4 cr)
- Math 3401—Operations Research, M/SR (4 cr)
- Math 3501—Applied Deterministic Modeling for Management Science, M/SR (2 cr)
- Math 3502—Applied Probabilistic Modeling for Management Science, M/SR (2 cr)
- Pol 3101—Political Science Analysis, SS (4 cr)
- Soc 3101—Research Methodology I (4 cr)
- Soc 3102—Research Methodology II (4 cr)

A minimum GPA of 2.00 is required in the major in order to graduate. The GPA includes all, and only, University of Minnesota course work. Grades of “F” are included in GPA calculation until they are replaced.

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**

**Required Courses**

- Stat 3601—Data Analysis, M/SR (4 cr)
- Stat 1601—Introduction to Statistics, M/SR (4 cr)
  or Stat 2601—Statistical Methods, M/SR (4 cr)

**Course Descriptions**

**Stat 1601. Introduction to Statistics.** (M/SR; 4 cr; prereq high school higher algebra; fall, spring, every year)

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 1993. Directed Study. (1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year)
An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.

Stat 2501. Probability and Stochastic Processes. (M/SR; 4 cr; =Math 2501); prereq Math 1101 or #; fall, every year)

Stat 2601. Statistical Methods. (M/SR; 4 cr; prereq Math 1101 or Math 1021; fall, every year)
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 2611. Mathematical Statistics. (M/SR; 4 cr; prereq Math 1101; spring, every year)
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 2993. Directed Study. (1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year)
An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.

Stat 3601. Data Analysis. (M/SR; 4 cr; prereq 1601 or 2601 or 2611 or #; fall, every year)
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 3611. Multivariate Statistical Analysis. (M/SR; 4 cr; prereq 1601 or 2601 or 2611 or #; spring, every year)

Stat 3993. Directed Study. (1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year)
An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.

Stat 4601. Biostatistics. (M/SR; 4 cr; prereq 1601 or 2601 or 2611 or #; spring)
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 4611. Statistical Consulting. (M/SR; 4 cr; prereq 3601, 3611; offered when feasible; fall, spring)
Statistical consulting skills needed to deal effectively with clients or project teams, formulate statistical models, explain analyses, use standard statistical computer packages, and write reports in language understandable to non-statisticians.

Stat 4631. Design and Analysis of Experiments. (M/SR; 4 cr; prereq 3601 or #; offered when feasible; fall, spring)
Design and analysis of experimental designs; blocking, randomization, replication, and interaction; complete and incomplete block designs; factorial experiments; crossed and nested effects; repeated measures; confounding effects.

Stat 4651. Applied Nonparametric Statistics. (M/SR; 4 cr; prereq 1601 or 2601 or 2611 or #; offered when feasible; fall, spring)
Application of nonparametric statistical methods. Examples use real data, gleaned primarily from results of research published in various journals. Nonparametric inference for single samples, paired samples, and independent samples, correlation and concordance, nonparametric regression, goodness-of-fit tests, and robust estimation.

Stat 4901. Senior Seminar. (M/SR; 1 cr; prereq sr; fall, every year)
Full-year course. Required for all statistics majors. Students must attend year round and present one of the seminars.

Stat 4993. Directed Study. (1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year)
An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.

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
or Th 3202—Advanced Directing
Th 4901—Senior Project

One course from:
Th 2111—Creative Drama with Children
Th 2201—Voice and Movement
Th 2211—Oral Interpretation
Th 2221—Readers’ Theatre
Th 3001—Theatre Scene Painting Studio
Th 3003—Stage Management
Th 3101—World Theatre: History and Literature I
Th 3102—World Theatre: History and Literature II
Th 3201—Advanced Acting
or Th 3202—Advanced Directing
Th 3301—Stage Lighting
Th 3302—Stage Costuming
Th 3303—Computer-Assisted Drawing
Th 4301—Scenic Design

Six major production responsibilities (four of which must be in a faculty-directed production, all others must be pre-approved by faculty, and three must be in the junior and senior years).

A portfolio review in the third year.

At least one para-programmatic theatre experience that is arranged through a theatre arts faculty member and may take any number of forms, e.g., an internship with a theatre company, study abroad, or theatre tour to New York (Th 1040) or London (Th 1050).

Up to 4 credits of coursework with a grade of D or D+ may be used to meet the 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. A minimum GPA of 2.00 is required in the major in order to graduate. The GPA includes all, and only, University of Minnesota course work. Grades of “F” are included in GPA calculation until they are replaced.

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 3001—Theatre Scene Painting Studio
Th 3003—Stage Management
Th 3101—World Theatre: History and Literature I
Th 3102—World Theatre: History and Literature II
Th 3201—Advanced Acting
or Th 3202—Advanced Directing
Th 3301—Stage Lighting
Th 3302—Stage Costuming
Th 3303—Computer-Assisted Drawing
Th 4301—Scenic Design

Three major production responsibilities (at least one of which must be in a faculty-directed production and at least two to be completed in the junior and senior years).

Up to 4 credits of coursework with a grade of D or D+ may be used to meet the minor 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. A minimum GPA of 2.00 is required in the minor in order to graduate. The GPA includes all, and only, University of Minnesota course work. Grades of “F” are included in GPA calculation until they are replaced.

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 [max 4 cr]; prereq #; offered when feasible; S-N only; fall, spring) Supervised field trip to New York; attending selected professional theatre productions; backstage tours; discussions with theatre professionals.

Th 1050. London Theatre Tour. (1 cr [max 4 cr]; prereq #; offered when feasible; S-N only; fall, spring) Supervised field trip to London, England; attending selected professional theatre productions; backstage tours; discussions with theatre professionals.

Th 1060. Production Experience. (1 cr [max 8 cr]; prereq #; S-N only; fall, spring, every year) Participation in some aspect of theatre production other than performing (e.g., scenery, props, costumes, lighting).

Th 1070. Performance Experience. (ArtP; 1 cr [max 8 cr]; prereq #; S-N only; fall, spring, every year) Participation in theatrical production as a performer.

Th 1101. The Theatre Experience: An Introduction. (FA; 4 cr; practicum required two hours per week, selected from M–Th from 2:00–5:30 p.m.; fall, every year) 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 1111. Fundamentals of Acting. (ArtP; 4 cr; prereq 1101, theatre arts major or minor or #; spring, every year) 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 1301. Fundamentals of Design. (ArtP; 4 cr; fall, every year) Problem-solving approach to elements, principles, and functions of design; their place in the theatre and elsewhere. (3 hrs lect, 2 hrs studio).

Th 1993. Directed Study. (1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year) An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.

Th 2101. Fundamentals of Directing. (ArtP; 4 cr; prereq 1111, theatre arts major or minor or #; spring, every year) 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 2111. Creative Drama with Children. (ArtP; 4 cr; prereq 1101 or theatre or elem ed major or #; offered when feasible; fall) Development of classroom skills in the use of dramatic techniques to teach a broad range of subjects to children. Exercices, presentations, and experiential learning techniques are modeled and practiced in class.

Th 2201. Voice and Movement. (ArtP; 4 cr; prereq 1111, theatre arts major or minor or #; spring, every year) 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 2211. Oral Interpretation. (ArtP; 4 cr; offered alternate yrs; fall, spring) 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 2221. Readers’ Theatre. (ArtP; 4 cr; prereq 2211; offered when feasible; fall) 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 2301. Stagecraft. (ArtP; 4 cr; spring, every year) 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 2993. Directed Study. (1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year) An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.

Th 3001. Theatre Scene Painting Studio. (FA; 4 cr; prereq #; spring, even years) Instruction in a systematic approach to painting theatrical scenery. Traditional techniques and the tools and paints that have been developed to support those techniques.

Th 3003. Stage Management. (ArtP; 4 cr; prereq #; fall, spring) Introduces the principles of theatrical stage management; explores the stage manager’s functions and duties through all phases of the production process including pre-production, rehearsal, and performance.

Th 3101. World Theatre: History and Literature I. (FA; 4 cr; fall, every 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 3102. World Theatre: History and Literature II. (FA; 4 cr; spring) 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 3201. Advanced Acting. (ArtP; 4 cr; prereq 1101, 1111, 2101; spring, every year) Begins with advanced acting techniques based in psychological realism and moves to an exploration of select classical and non-realistic forms. Styles to be examined are chosen from a list, including Ancient Greek, Elizabethan, Comedy of Manners, Absurdism, Postmodernism, Musical Theatre, etc.
Th 3202. Advanced Directing. (ArtP; 4 cr; prereq 1101, 1111, 2101; fall, even years)
Beginning with advanced directing techniques based in psychological realism and moves to an exploration of select classical and non-realistic forms. Styles to be examined are chosen from a list, including ancient Greek, Elizabethan, comedy of manners, absurdism, postmodernism, musical theatre, etc.

Th 3301. Stage Lighting. (ArtP; 4 cr; prereq 1301, 2301; spring, even years)
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 3302. Stage Costuming. (FA; 4 cr; prereq 1301, 2301; spring, odd years)
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 3303. Computer-Assisted Drawing. (ArtP; 4 cr; every year)
Theory, concepts, and practice of using a computer as a drawing and drafting tool.

Th 3304. Art Direction for Film and Television. (FA; 4 cr; offered when feasible)
Introduction of art direction for film and television. The roles and duties of the production designer and art director for fictional film and television series.

Th 3451. Shakespeare’s England. (Hum; 4 cr; = [Engl 3451]; offered when feasible; summer)
Same as Engl 3451. A study-abroad course in London and Stratford that concentrates on Shakespeare’s plays in performance. Exploration of the relationship between plays as written scripts and the decisions directors and actors make when they stage productions. [Continuing Education course]

Th 3993. Directed Study. (1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year)
An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.

Th 4301. Scenic Design. (FA; 4 cr; prereq 1301, 2301; spring, odd years)
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.

Th 4901. Senior Project. (2–4 cr [max 4 cr]; prereq theatre arts major, #; fall, spring, every year)
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 4993. Directed Study. (1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year)
An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.

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 Internship
One 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 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 59 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 2212—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
Mgmt 2101—Principles of Accounting I
Mgmt 3201—Marketing Principles and Strategies
Mgmt 3221—Management and Organization Theory or Mgmt 3701—Organizational Behavior
Stat 1601—Introduction to Statistics
Spch 1052—Introduction to Public Speaking

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 2208—Soccer Coaching

Note: Up to four credits of D or 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. The GPA includes all, and only, University of Minnesota course work. Grades of “F” are included in GPA calculation until they are replaced.

Course Descriptions

WSS 1051. Fitness for Life. (2 cr; fall, spring, every year)
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 1052. Societal Issues in Health and Wellness. (SS; 2 cr; fall, spring, every year)
A study of how perceptions of society’s health and wellness issues affect our individual health/fitness choices.

WSS 1101. First Aid. (1 cr; fall, spring, every year)
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 1213. Golf. (0.5 cr [max 1 cr]; S-N only; fall, every year)
Introductory instruction in the skills and techniques of golf.

WSS 1219. Strength Training. (0.5 cr [max 1 cr]; S-N only; fall, spring, every year)
Introductory instruction in the skills and techniques of strength training.

WSS 1224. Wellness Skills: R.A.D.—Basic Rape Aggression Defense (R.A.D.) System. (0.5 cr [max 1 cr]; S-N only; fall, spring, every year)
A comprehensive program of realistic, self-defense tactics and techniques for women. Includes awareness, prevention, risk reduction and avoidance, progressing to the basics of hands-on defense training. Utilizes nationally approved/recognized curriculum. [Continuing Education course]

WSS 1301. Beginning Karate. (0.5 cr [max 3 cr]; S-N or Aud, fall, spring, every year)
Terminology, fundamentals, basic techniques of blocking, punching and kicking; basic attack and defense strategies. [Continuing Education course]

WSS 1303. Advanced Karate. (0.5 cr [max 3 cr]; prereq 1301 or #; S-N or Aud, fall, spring, every year)
Continuation of 1301. Detailed instruction in authentic karate technique. Instructor sets groundwork as students begin training for first degree black belt. [Continuing Education course]

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 1401. Varsity Baseball. (M) (0.5 cr [max 2 cr]; S-N only; spring, every year)
- WSS 1402. Varsity Basketball. (0.5 cr [max 2 cr]; S-N only; spring, every year)
- WSS 1403. Varsity Cross Country. (W) (0.5 cr [max 2 cr]; S-N only; fall, every year)
- WSS 1404. Varsity Football. (M) (0.5 cr [max 2 cr]; S-N only; fall, every year)
- WSS 1405. Varsity Golf. (0.5 cr [max 2 cr]; S-N only; fall, every year)
- WSS 1406. Varsity Softball. (W; 0.5 cr [max 2 cr]; S-N only; spring, every year)
- WSS 1407. Varsity Tennis. (0.5 cr [max 2 cr]; S-N only; spring, every year)
- WSS 1408. Varsity Track and Field. (0.5 cr [max 2 cr]; S-N only; spring, every year)
- WSS 1410. Varsity Volleyball. (W) (0.5 cr [max 2 cr]; S-N only; fall, every year)
- WSS 1411. Varsity Soccer. (0.5 cr [max 2 cr]; S-N only; fall, every year)
- WSS 1412. Varsity Swimming & Diving. (W) (0.5 cr [max 2 cr]; S-N only; fall, every year)
- WSS 1993. Directed Study. (1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year)
An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.

- WSS 2102. Human Anatomy. (3 cr; =Biol 2102; prereq soph; fall, every year)
Same as Biol 2102. Structure of human systems at their organ and cellular levels. (one 100-min lect, one 120-min lab)
- WSS 2111. Kinesiology. (Sci; 2 cr; prereq 2102; fall, every year)
Scientific principles of movement and tissue responses to force; analysis of basic movement in sports and other physical activities.
- WSS 2112. Exercise Physiology. (2 cr; fall, every year)
Human physiological adaptations resulting from activity/exercise.
WSS 2121. Prevention and Care of Injuries. (4 cr; prereq 2111; spring, every year) 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 2201. Baseball Coaching. (2 cr; spring, every year) History, psychology, and theory of the game, coaching each position, rules, batting, practice and game organization, strategy, officiating.

WSS 2203. Football Coaching. (2 cr; fall, every year) History, psychology, and theory of the game, offensive and defensive formations, strategy, practice and game organization, officiating, rules, techniques of coaching each position.

WSS 2200. Track and Field Coaching. (2 cr; spring, every year) History, psychology, and theory of the game, coaching each position, rules, batting, practice and game organization, strategy, officiating.

WSS 2204. Softball Coaching. (2 cr; spring, even years) History, psychology, and theory of the game, coaching each position, rules, batting, practice and game organization, officiating, rules.

WSS 2202. Basketball Coaching. (2 cr; fall, every year) History, psychology, and theory of the game, offensive and defensive formations, strategy, practice and game organization, officiating, rules, techniques of coaching each position.

WSS 2205. Track Field and Field Coaching. (2 cr; spring, every year) 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 2206. Volleyball Coaching. (2 cr; fall, every year) History, psychology, and theory of the game, offensive and defensive formations, strategy, practice and game organization, officiating, rules.

WSS 2208. Soccer Coaching. (2 cr; fall, even years) History, psychology, and theory of the sport, individual techniques, practice and game organization, officiating, rules and strategies.

WSS 2201. Coaching Internship. (1 cr; prereq #; S-N only; fall, spring, every year) Supervised field experience in coaching, consisting of no fewer than 40 hours.

WSS 2310. Internship in Wellness and Sport Science. (1-12 cr; prereq approved; SS; 4 cr; spring, every year) An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.

WSS 2321. Group Fitness Instructor Training. (2 cr; S-N only; offered when feasible; fall, spring) Study of the principles and foundation of group exercise leadership and instruction and the development and progression of all components of an exercise program including movements, choreography, health screening and assessments, and prevention of injuries common to an exercise program. Preparation for national certification examinations in aerobics instruction. [Continuing Education course]

WSS 2322. Advanced Rape Aggression Defense System (R.A.D.). (1 cr; prereq 1224; S-N only; fall, every year) Builds on self-defense techniques and awareness, prevention and avoidance strategies learned in basic R.A.D., adding defenses against the edged weapon and firearm. Covers more prone defense strategies, multiple subject encounters, and low and diffused light simulation exercises. [Continuing Education course]

WSS 2331. Personal Training Preparation. (2 cr; S-N only; offered when feasible; fall, spring) Concepts, theory, practice, and research in personal training and conditioning. Basic anatomy and physiology, principles of strength training, overview of training equipment, fitness assessments, designing individual exercise programs, legal liabilities, national certifications, and review of research. Preparation for national certification examinations in the areas of personal training and strength conditioning. [Continuing Education course]

WSS 2332. Legal Aspects of Physical Education and Sport. (SS; 3 cr; offered when feasible; summer) Introduction to basic legal and safety aspects of physical activity, recreation, and sport. Emphasis on legal liability, risk management, and violence in sports. Intended for those who organize and manage leisure and sport activities or leagues for youth, high school, and college programs. [Continuing Education course]

WSS 2401. Sociological Aspects of Sports. (SS; 2 cr; spring, every year) Sociological aspects of physical education, sports, and recreation and the implications this knowledge has for effective teaching, coaching, and athletic training.

WSS 2402. Psychological Aspects of Sports. (SS; 2 cr; prereq 2401; spring, every year) Psychological aspects of physical education, sports, and recreation and the implications this knowledge has for effective teaching, coaching, and athletic training.

WSS 2993. Directed Study. (1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year) An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.
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**

A total of 40 credits is required for this major. 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.

**Required courses:**

- WoSt 1101—Introduction to Women’s Studies
- Engl 2031—Gender in Literature and Culture
- Soc 3121—Sociology of Gender
- WoSt 4901—Assessment of Student Learning in Women’s Studies
- WoSt 4993—Directed Study

*In addition, one course from the following is required:*

- Anth/Soc 3602—Women in Latin America
- Anth/Soc 3452—American Indian Women
- Psy 3051—The Psychology of women and Gender
- Soc 2101—Systems of Oppression
- Soc 3252—Women in Muslim Society

Depending on the number of credits for WoSt 4993, 18–22 additional credits from courses listed below are to be selected. These courses must come from at least three different disciplines. A course not listed may be applied to the 18–22 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.

No grades below C- are allowed. A minimum GPA of 2.00 is required in the major in order to graduate. The GPA includes all, and only, University of Minnesota course work. Grades of “F” are included in GPA calculation until they are replaced.

**Minor Requirements**

WoSt 1101—Introduction to Women’s Studies

An additional 24 credits from the courses listed below are to be selected from at least three different disciplines.

No grades below C- are allowed. A minimum GPA of 2.00 is required in the minor in order to graduate. The GPA includes all, and only, University of Minnesota course work. Grades of “F” are included in GPA calculation until they are replaced.

**Course Descriptions**

- **Anth 2501. Medical Anthropology—An Overview.** (SS; 4 cr; prereq 1111 or Soc 1101 or #; spring, every years)
  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 3452. American Indian Indian Women.** ([HDiv; 4 cr;]: Soc 3452; prereq 1111 or Soc 1101 or #; fall, every year)
  Same as Soc 3452. 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 3602. Women in Latin America.** ([IP; 4 cr;]: Soc 3602; prereq 1111 or Soc 1101 or #; fall, odd years)
  Same as Soc 3602. Study of the 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, economic and political conditions, religion and women, etc.

- **ArtH 3281. Women and Art.** (FA; 4 cr; prereq any 1xxx ArtH course or jr status or #; fall, odd years)
  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 3006. Media Studies: Feminist Art: A Studio Perspective.** (ArtP; 3 cr; max 9 cr; prereq major or minor or #; fall, spring)
  The impact of the women’s movement of the 1970s on contemporary art. Exploration of the notion of “women’s work” as a studio practice; the materials, methods, and issues that define feminist work.

- **Econ 3351. Globalization: Examining India’s Social and Economic Development.** ([IP; 4 cr;]: [Mgmt 3351; prereq 1111 or 1112 or #; offered when feasible; spring]
  Same as Mgmt 3351. Observe and study the impact of globalization on the Indian economy. Examine the growing class divide between the middle and upper middle class and the lower class. Study the problem of mass poverty in India and its various ramifications such as child labor, lack of education and basic health care, and the inherent gender bias. Examine sustainable grass roots efforts to combat some of these problems. (Continuing Education course)

- **Econ 4101. Labor Economics I.** ([HDiv; 2 cr;]: prereq 3201 or #; fall, every year)
  Wage and employment determination. Distribution of earnings and earnings inequality by race and sex. Labor supply applications.
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 3153. Gothic Literature. ([Hum; 4 cr; prereq 1131, two from 2201, 2202, 2211, 2212; fall]
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.

Fren 1304. French Women Authors in Translation. ([IP; 4 cr; =([Hum 1304]; prereq #; fall, odd years)
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. Taught in English, but all papers and some reading/discussion will be in French. Meets Modern requirement in French major.

Ger 3501. Women’s Issues in Contemporary German Culture. ([IP; 4 cr; =([Hum 3501]; prereq 3011 or #; offered when feasible; spring)
Same as Hum 3501. Focus is on the German women’s movement during the 20th 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. Readings and lectures are in English. Final papers either in German (for German credit) or English (for Humanities credit).

Hist 1402. Women in U.S. History. ([HDiv; 4 cr; offered when feasible; fall, spring]
Themes and methods in the history of women in the United States. Topics may include women in the colonial era; American Indian, African American, and immigrant women; sex roles; women and work, family, politics, the law, and religion.

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

Hist 3704. Women in the Middle Ages. ([SS; 4 cr; offered when feasible; fall, spring]
Analysis of the history of European women and gender systems as constructed during the Middle Ages (c. 500–1500).

Hist 3706. Women in Early Modern Europe. ([SS; 4 cr; prereq 1101 or 1102 or 1301, WoSt 1101; offered when feasible; fall, spring]
Examination of lives of women in Europe from about 1350 to 1750.

Hist 3707. Gender in East Asia. ([HDiv; 4 cr; spring, odd years)
Study of the changing perceptions of gender in East Asia from its earliest written records until the present. Special emphasis on the changing role of women in East Asia. Exploration of the way gendered discourse affected broader understandings of society, politics, the economy, and culture. Background in East Asian history, while preferred, is not required.

Hist 3708. European Women’s History, 1600–Present. ([IP; 4 cr; prereq 1101 or 1102 or 1301, WoSt 1101; offered when feasible; fall, spring]
Examination of the forces that have shaped the lives of European women since 1600 and analysis of how changes in the structures of power and authority—religious, political, social, familial—affect the choices available to them. Students engage critically with the question of what bringing gender to the forefront of the study of European history has to teach them. Students gain an understanding of many of the underpinnings of American society, which has been deeply affected by European patterns of thought about women and their place in the world.

Hum 1304. French Women Authors in Translation. ([IP; 4 cr; =([Fren 1304]; fall, odd years)
Same as Fren 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. Students who wish to apply this course to their French major must enroll in the French equivalent of this course, Fren 1304.

Hum 3501. Women’s Issues in Contemporary German Culture. ([IP; 4 cr; =([Ger 3501]; offered when feasible; spring)
Same as Ger 3501. Focus is on the German women’s movement during the 20th 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. Readings and lectures are in English. Final papers either in German (for German credit) or English (for Humanities credit).

Mgmt 3351. Globalization: Examining India’s Social and Economic Development. ([IP; 4 cr; =([Econ 3351]; prereq Econ 1111 or Econ 1112 or #; offered when feasible; spring)
Same as Econ 3351. Observe and study the impact of globalization on the Indian economy. Examine the growing class divide between the middle and upper middle class and the lower class. Study the problem of mass poverty in India and its various ramifications such as child labor, lack of education and basic health care, and the inherent gender bias. Examine sustainable grass roots efforts to combat some of these problems. [Continuing Education course]

Phil 2112. Professional Ethics. ([E/CR; 4 cr; fall, every year)
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. Analytic Feminism. ([Hum; 4 cr; offered when feasible; spring]
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 4503. Women in Politics Worldwide. ([IP; 4 cr; prereq 1201, 2101 or #; spring, even years)
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 1071. Human Sexuality.** (SS; 4 cr; fall, every year)
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 child birth; contraception and disease prevention; sexual coercion and abuse; sexual dysfunctions and their treatment.

**Psy 3051. The Psychology of Women and Gender.** ([HDiv; 4 cr; prereq 1051 or #; spring, every year]
Exploration of the interactive biological, psychological, and socio-cultural processes that shape the lives of women and the experience of gender. Topics include: the psychobiology of sex; the social construction of sex and gender; socialization and development; media representations; identity and sexuality; language and communication; motivation and personality; relationships; work and family lives; mental and physical health; mid- and later life development; victimization; therapy; intersections of race, class, and gender; and feminist approaches to teaching, learning, and knowing.

**Psy 3221. Behavioral Biology of Women.** (Sci; 2 cr; prereq 3211 or Biol 2111 or #; offered when feasible; fall, spring)
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 4896. Field Experiences in Psychology.** (SS; 1–4 cr [max 4 cr; prereq #, which normally requires 4101 for work in psychiatric settings, 3302, 3401 or 3402 for work in schools; SS [if taken for 2 or more cr]; only 4 cr may be applied to the BA or the Psy major; S-N only; fall, spring, every year)
Individually arranged, supervised observation of and assistance with activities of professional psychologists in schools, clinics, hospitals, and other field settings.

**Soc 2101. Systems of Oppression.** ([HDiv; 4 cr; prereq 1101 or Anth 1111 or #; fall, every year]
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 3121. Sociology of Gender.** (HDiv; 4 cr; prereq 1101 or Anth 1111 or #; fall, every year)
An introduction to the sociological study of gender. Focus on gender difference and gender inequality. Analysis of the changing roles, opportunities, and expectations of women and men as their societies (and subsequently, gender relations and power) undergo change in today’s world. Theoretical overview and an examination of how gender affects everyday experiences.

**Soc 3252. Women in Muslim Society.** (IP; 4 cr; prereq 1101 or Anth 1111; spring)
The cultures and social statuses of women in several Muslim countries are examined and placed in their political, economic, and religious contexts.

**Soc 3452. American Indian Women.** ([HDiv; 4 cr; =[Anth 3452]; prereq 1101 or Anth 1111 or #; fall, every year)
Same as Anth 3452. 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 3602. Women in Latin America.** ([IP; 4 cr; =[Anth 3602]; prereq 1101 or Anth 1111 or #; fall, odd years)
Same as Anth 3602. Study of the 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, economic and political conditions, religion and women, etc.

**WoSt 1101. Introduction to Women’s Studies.** (HDiv; 4 cr; A-F or Aud, fall, every year)
Overview of gender and feminist theories, history of the women’s movement, and the impact of gender in everyday life.

**WoSt 3993. Directed Study.** (1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year)
An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.

**WoSt 4101. Feminist Theory.** ([HDiv; 4 cr; prereq 1101 or 1111 or #; offered when feasible; fall, spring]
Engages students in a critical examination of several influential works participating in the elaboration of feminist theories. Readings and discussions focus on a series of themes and issues—gender, sexuality, race, class, language, bodies, etc.—and how these issues bear upon society.

**WoSt 4901. Assessment of Student Learning in Women’s Studies.** (1 cr; prereq completion of 32 cr in women’s studies; S-N only; fall, spring, every year)
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 4993. Directed Study.** (1–5 cr [max 10 cr]; prereq approved directed study form; fall, spring, every year)
An on- or off-campus learning experience individually arranged between a student and a faculty member for academic credit in areas not covered in the regular curriculum.