Applications and transcripts should be sent to the following address:
Office of Admissions
Minnesota State University, Mankato
122 Taylor Center
Mankato, MN 56001
Admissions Phone: 507-389-1822; Admissions Fax: 507-389-1511

Find out more about us on the World Wide Web at:
www.mnsu.edu

***NOTE TO STUDENTS***

Email is the University's Official Means of Communication

University assigned student email accounts shall be the University's official means of communication with all students.
Students are responsible for all information sent to them via the University assigned email account. If a student chooses to forward the University email account, she or he is still responsible for all information, including attachments, that is sent to the University email account.
SAVE THIS BOOK

If your general education or major requirements change during that time, you may still choose to graduate under the curricular requirements in this catalog. In the case of licensure programs, changes in licensure requirements may lead to changes in curricular requirements.

The requirements cited in this catalog are valid for seven years.

The Minnesota State Mankato, Undergraduate Catalog is a general catalog of information regarding curricula, fees, and related policies and procedures. Every effort has been made to make the catalog accurate as of the date of publication; however, all policies, procedures, and fees are subject to change at any time by appropriate action of the faculty, the university administration, the Minnesota State Colleges and Universities Board, or the Minnesota Legislature. The provisions of this Catalog DO NOT constitute a contract between the student and university.

The university calendar is subject to modification or interruption due to occurrences such as fire, flood, labor disputes, interruption of utility services, acts of God, civil disorder and war. In the event of any such occurrences, Minnesota State Mankato will attempt to accommodate its students. It does not, however, guarantee that courses of instruction, extracurricular activities or other university programs or events will be completed or rescheduled. Refunds will be made to eligible students in accordance with Minnesota State Colleges and Universities Board policy.

This document is available in alternative format to individuals with disabilities by calling the Office of Academic Affairs, phone 507-389-1333 (V), 800-627-3529 or 711 (MRS/TTY).

A member of the Minnesota State Colleges and Universities System. Minnesota State Mankato is an Affirmative Action/Equal Opportunity University.

List of academic programs is available online at www.mnsu.edu/programs/

ACCREDITATIONS
Minnesota State University, Mankato is accredited by the Higher Learning Commission. In addition, all individual programs undergo periodic reviews, generally every five years. Some professional associations also accredit specific programs.

GENERAL ACCREDITATIONS
1929: Higher Learning Commission (last renewed 2006)
1952: The American Association of University Women
1954: The National Council for Accreditation of Teacher Education (last renewed 2004)
University Vision, Values & Mission

Mission

Minnesota State University, Mankato promotes learning through effective undergraduate and graduate teaching, scholarship, and research in service to the state, the region and the global community.

Vision

Minnesota State Mankato will be known as a university where people expect to go further than they thought possible by combining knowledge and the passion to achieve great things.

Our foundation for this vision is our heritage of both dedicated teaching and the direct application of knowledge to improve a diverse community and world. We will achieve it by actively nurturing the passion within students, faculty and staff to push beyond possibility on the way to realizing dreams.

Core Values

Minnesota State University, Mankato is an innovative, student-centered learning community that values:

- **Integrity** and respect in the way we conduct ourselves;
- **Diversity** in who we are and what we do;
- **Access** to our programs and services that create opportunities for all to pursue their dreams;
- **Responsibility** to those we serve by providing an education that inspires solutions to society's challenges; and
- **Excellence** in our academic and non-academic pursuits.
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<td>Alcohol and Drug Studies</td>
<td>BS</td>
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<td>Community Health Education</td>
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<td>Health &amp; Physical Education</td>
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<td>School Health Education</td>
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<td>History</td>
<td>BA, BS</td>
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<td>Humanities</td>
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<td>Human Performance</td>
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<td>Health and Physical Education</td>
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<td>Information Systems</td>
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<td>Integrated Engineering</td>
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<td>Interdisciplinary Studies (Previously Open Studies)</td>
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<td>International Business</td>
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<td>MAJOR</td>
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<td>International Relations</td>
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<td>Security &amp; Peace (S&amp;P) Emphasis</td>
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<td>International Political Economy (IPE) Emphasis</td>
<td>BA</td>
<td>Yes. Any.</td>
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<td>International Norms &amp; Institutions (INI) Emphasis</td>
<td>BS</td>
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<td>Regional Studies (RS) Emphasis</td>
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<td>MN POST Board Cert</td>
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<td>Management</td>
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<td>Human Resource Management Emphasis</td>
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<td>Manufacturing Engineering Technology</td>
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<td>Marketing</td>
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<td>Mass Media</td>
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<td>Music</td>
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<td>Music (Voice, Piano, or Instrumental)</td>
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<td>Music Industry</td>
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<td>Music Industry Audio Production Specialist</td>
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<td>Nursing</td>
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<td>Physical Education (See Human Performance)</td>
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<td>Scandinavian Studies</td>
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<td>Chemistry 9-12 Teaching</td>
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<td>Earth Science 5-12 Teaching</td>
<td>BS</td>
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<td>Life Science 5-12 Teaching</td>
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<td>Physics 5-12 Teaching</td>
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<td>MAJOR</td>
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<td>Social Studies</td>
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<td>Sociology Globalization Studies</td>
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<td>Special Education: Academic and Behavioral Strategist</td>
<td>BS</td>
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<td>Sport Management</td>
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<td>Generalist</td>
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<td>Acting</td>
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<td>Theatre Design/Technology</td>
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<td>Musical Theatre</td>
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<td>Urban and Regional Studies</td>
<td>BS</td>
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### EDUCATION DEGREES

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<td>Art</td>
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<td>Business Education</td>
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<td>(Inter-institutional with Winona State)</td>
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<td>Communication Arts &amp; Literature</td>
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<td>Dance Education</td>
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<td>Modern Language French</td>
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<td>Modern Language German</td>
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<td>Modern Language Spanish</td>
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<td>English/Speech</td>
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<td>Family Consumer Science</td>
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<td>French</td>
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<td>German</td>
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<td>Health &amp; Physical Education (See Health Science)</td>
<td>K-12</td>
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<td>Mathematics</td>
<td>5-12</td>
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<td>Music Education</td>
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<td>Instrumental Band/Orchestra</td>
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<td>Vocal/General Music</td>
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<td>School Health Education (See Health Science)</td>
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<td>Science Teaching</td>
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<td>Life Science (Biology)</td>
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<td>Chemistry</td>
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<td>Spanish</td>
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<td>Special Education</td>
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<td>Academic and Behavioral Strategist</td>
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### NON-DEGREE PROGRAMS

- **Certificate**
  - American Indigenous Studies
  - Critical Thinking (See Philosophy)
  - Database Technologies (See Computer Information Technology)
  - Elementary Education STEM
  - Geochronology (See Earth Science)
  - Geomorphology and Earth Science Processes (See Geography)
  - Geographic Information Science (GISc)
  - Information Security (See Computer Information Technology)
  - Law Enforcement Management
  - Long-Term Administration (See Aging Studies)
  - Museum Studies (See Anthropology)
  - Networking Technologies (See Computer Information Technology)
  - Nonprofit Leadership
  - Renewable Energy (See Electronic Engineering Technology)
  - Software Development (See Computer Information Technology)
  - Technical Communication (See English)

- **Licensure**
  - Aging Studies - Nursing Home Administration Track

- **Pre-Professional Programs**
  - Pre-Chiropractic
  - Pre-Dental
  - Pre-Engineering
  - Pre-Law
  - Pre-Medicine
  - Pre-Mortuary Science
  - Pre-Occupational Therapy
  - Pre-Optometry
  - Pre-Osteopathic Medicine and Surgery
  - Pre-Pharmacy
  - Pre-Physical Therapy
  - Pre-Pediatric Medicine and Surgery
  - Pre-Veterinary Science
MINORS

Accounting
Actuarial (See Mathematics)
Aging Studies
  Aging Studies for Nursing
Alcohol & Drug Studies (See Health Science)
American Indigenous Studies
Anthropology
Art History
Art Studio
Astronomy
Athletic Coaching
Automotive Engineering Technology
Aviation
  Aeronautics
  Private Flight
  Professional Flight
Biology
Business Administration
Business Law
Chemistry
Child Development and Family Studies (See Family Consumer Science)
Communication Disorders
Communication Studies
  Interdisciplinary (See Communication Studies & English)
Computer Information Science (See Computer Information Technology)
Computer Technology (See Computer Information Technology)
Consumer Studies (FCS)
Corporate and Community Fitness/Wellness
Corrections
Critical Thinking (See Philosophy)
Dance
Database Technologies (See Computer Information Technology)
Earth Science
Economics
Electronic Engineering Technology
Elementary Education
  Middle School Math
  Middle School Science
  Middle School Communication Arts & Literature
English
  General
  Creative Writing
  Interdisciplinary Communications
  Linguistics
  Teaching English as a Second Language Non-Licensure
  Teaching English as a Second Language
  Technical Communication
  Writing Studies
Entrepreneurship and Innovation (See Management)
Environmental Science
Ethics (See Philosophy)
Ethnic Studies Online
Family Consumer Science
Film Studies
Financial Planning (See Finance)
Food and Nutrition (See Family Consumer Science)
French
Gender and Women’s Studies
Geography
Geology
German
Health Science
History
Human Resource Management (See Management)
Humanities
International Business
International Relations
International Technology (Computer Information Technology)
Latin American Studies
Law Enforcement
Manufacturing Engineering Technology
Marketing
Mass Media
Mathematics
Middle School Mathematics (See Elementary Education)
Middle School Science (See Elementary Education)
Middle School Communication Arts & Literature (See Elementary Education)
Military Science
Music
Networking and Information Security (See Computer Information Technology)
Nonprofit Leadership
Philosophy
Physical Education (Non-Teaching) (See Human Performance)
Physics
Political Science
Public Administration
Psychology
Recreation, Parks & Leisure Services
Scandinavian Studies
Sexuality Studies (See Gender and Women’s Studies)
Social Welfare (See Social Work)
Sociology
Software Development (See Computer Information Technology)
Spanish
Special Education: Academic and Behavioral Strategist
Sport Medicine (See Human Performance)
Statistics
Theatre Arts
Urban and Regional Studies
## Programs at 120 Credits

- Accounting - BS
- American Indian Studies - BS
- Anthropology - BA/BS
- Applied Organizational Studies - BS
- Art - BA
  - Ceramic - BFA
  - Drawing - BFA
  - Graphic Design - BFA
  - Painting - BFA
  - Photography - BFA
  - Printmaking - BFA
  - Sculpture - BFA
- Art Teaching - BS
- Art History - BA
- Athletic Training - BATR
- Aviation - BS
- Biochemistry - BA/BS
- Biology - BS
- Biotechnology - BS
- Chemistry BA/BS
- Cognitive Science - BS
- Communication Arts & Literature - BS
- Communication Arts & Literature Education (English Emphasis) - BS
- Communication Disorders - BA/BS
- Communication Studies - BA/BS
- Computer Information Technology - BS
- Construction Management - BS
- Corrections - BS
- Dance - BA/BS
- Dance Education (K-12) - BS
- Dental Hygiene - BS
- Earth Science - BA/BS
- Economics - BA/BS
- Elementary Education - BS
- English BA/BS
  - Creative Writing - BA
  - Creative Writing - BFA
  - English Literature - BA
  - English Studies - BA
  - Technical Communication - BS
- Environmental Sciences - BS
- Ethnic Studies - BS
- Exercise Science - BS
- Family Consumer Science - BS
- Child Development and Family Studies - BS
- Dietetics - BS
- Food and Nutrition-BS
- Finance - BS
- Food Science Technology - BS
- French - BA/BS
  - French Teaching - BS
- Gender and Women's Studies - BA/BS
- Geography - BA/BS
- German - BA/BS
  - German Teaching - BS
- Health Science
  - Alcohol and Drug Studies - BS
  - Community Health Education - BS
  - Health and Physical Education - BS
  - School Health Education - BS
- History - BA/BS
- Humanities - BA
- Information Systems - BS
- Interdisciplinary Studies - BS
- International Business - BS
- International Relations - BA
- Law Enforcement - BA/BS
- Liberal Arts & Sciences - AA
- Management - BS
- Marketing - BS
- Medical Laboratory Science - BS
- Mass Media - BA/BS
- Mathematics - BA/BS
- Mathematics Teaching - BS
- Music - BA
  - Music Industry - BS
  - Music Industry, Audio Production Specialist - BS
- Nursing - BS
- Philosophy - BA/BS
- Philosophy, Politics & Economics (PPE) - BA/BS
- Physics - BS
- Physics Science Teaching - BS
- Political Science - BA/BS
- Psychology - BA/BS
- Recreation, Parks & Leisure Services - BS
- Scandinavian Studies - BA
- Science Teaching
  - Chemistry 5-12 Teaching - BS
  - Earth Science 5-12 Teaching - BS
  - Life Science 5-12 Teaching - BS
- Social Studies - BS
- Social Studies Teaching - BS
- Social Work - BSSW
- Sociology - BA/BS
- Spanish - BA/BS
  - Spanish for the Professions - BS
  - Spanish Teaching - BS
- Special Education (Developmental Cognitive Disabilities) - BS
- Sport Management - BS
- Statistics - BS
- Theatre Arts (Generalist) - BA/BS
- Theatre
  - Acting - BFA
  - Musical Theatre - BFA
  - Theatre Design/Technology - BFA
- Urban & Regional Studies - BS

## Programs at 128 Credits

All programs listed below have an approved MnSCU credit waiver.

- Automotive Engineering Technology - BS
- Civil Engineering - BSCE
- Computer Engineering - BSCE
- Computer Engineering Technology - BS
- Electrical Engineering - BSEE
- Electronic Engineering Technology - BS
- General Engineering - BSE
- Manufacturing Engineering Technology - BS
- Mechanical Engineering - BSME

## Programs at 136 Credits

This program is part of a state-wide MnSCU credit waiver.

- Music Education - BS
Policies

The activities of the University are administered in accordance with a variety of federal and state laws, Minnesota State Colleges and Universities (MnSCU) Board policies, assorted rules and regulations, and staff and student rights and responsibilities. For more information concerning applicable University and system policy, contact the Office of Academic Affairs or go to http://www.mnsu.edu/academic/policies/.

The Family Education Rights and Privacy Act (FERPA) affords students certain rights with respect to their education records. They are:
1. The right to inspect and review the student’s education records within 45 days of the day the University receives a request for access. Students should submit to the Office of the Registrar, dean, head of the Department of Academic Affairs, or other appropriate official, written requests that identify the records(s) they wish to inspect. The University official will make arrangements for access and notify the student of the time and place where the records may be inspected. If the records are not maintained by the University official to whom the request was submitted, that official shall advise the student of the correct official to whom the request should be addressed.
2. The right to request the amendment of the student’s education records that the student believes are inaccurate or misleading. Students may ask the University to amend a record that they believe is inaccurate or misleading. They should write the University official responsible for the record, clearly identify the part of the record they want changed, and specify why it is inaccurate or misleading. If the University decides not to amend the record as requested by the student, the University will notify the student of the decision and advise the student of his or her right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.
3. The right to consent to disclosures of personally identifiable information contained in the student’s education records, except to the extent FERPA authorizes disclosure without consent. One exception which permits disclosure without consent is disclosure to school officials with legitimate educational interests. A school official is a person employed by the University in an administration, supervisory, academic or research, or support staff position (including health or medical staff) and also clerical staff who transmit the education record; a person or company with whom the University has contracted (such as an attorney, auditor, or collection agent); a person who is employed by Minnesota State Mankato Security Department acting in a health or safety emergency; or a student serving on an official committee, such as disciplinary or grievance committee, or assisting school official in performing his or her tasks. A school official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibility.

Nondiscrimination in Employment and Education Opportunity. Minnesota State Mankato is committed to a policy of nondiscrimination in employment and education opportunity. No person shall be discriminated against in the terms and conditions of employment, personnel practices, or access to and participation in programs, services, and activities with regard to race, sex, color, creed, religion, age, national origin, disability, marital status, status with regard to public assistance, sexual orientation, or membership or activity in a local commission as defined by law.

Discrimination because of race, sex, or disability is prohibited by state and federal law. Discrimination because of sexual orientation is prohibited by state law. Discrimination is defined as conduct that is directed at an individual because of his/her race, color, national origin, sex, sexual orientation, mental/physical disability or that of his/her partner and which subjects the individual to different treatment by agents or employees so as to interfere with or limit the ability of the individual to participate in, or benefit from, the services, activities, or privileges provided by the university or otherwise adversely affects the individual’s employment or education.

Harassment because of race, sex, or disability is a form of discrimination prohibited by state and federal law. Harassment because of sexual orientation is prohibited by state law. Harassment is defined as verbal or physical conduct that is directed at an individual because of his/her race, color, national origin, sex, sexual orientation, or disability or that of his/her partner and that is sufficiently severe, pervasive, or persistent so as to have the purpose or effect of creating a hostile work or educational environment. Harassment may occur in a variety of relationships, including faculty and student, supervisor and employee, student and student, staff and student, employee and employee, and other relationships with other persons having business at or visiting the educational environment. Sexual harassment is defined as unwelcome sexual advances, requests for sexual favors, sexually motivated physical conduct and other verbal or physical conduct of a sexual nature. Sexual harassment may occur when it is directed at members of the opposite sex or when it is directed at members of the same sex.

Acts of sexual violence are criminal behaviors and create an environment contrary to the goals and missions of Minnesota State Mankato. These acts will be investigated and may subject an individual to complaints and disciplinary sanctions as well as possible referral to appropriate law enforcement agencies.

Inquiries regarding compliance should be referred to the Office of Affirmative Action, 112 Armstrong Hall, or at 507-389-2986 (V) or 1-800-627-3529 or 711 (MRS/TTY).

Student Records Policy. Federal law and state statute allow current and former students access to their education records. While the primary record is located in the Office of the Registrar, other records may be located in Admissions, Financial Aid, Business Affairs, Career Development Center, Student Health Service, Student Affairs, Graduate Studies, Office of International Students and academic departments.

Minnesota State Mankato has designated the following items as Directory Information. As such, this information may be released to the public without the student: name, date and place of birth, local and permanent address, major field of study, local and permanent telephone number, dates of attendance, previous college/university attended, degrees received, email address, awards and honors, height and weight information for athletic participation, performance records and participation in competitive events, and participation in officially recognized activities, sports and organizations. Students may request that directory information be kept private by contacting the Office of the Registrar, 132 Wigley Administration Center.

Equity in Athletics Disclosure Act 1994. U.S. Department of Education guidelines now require post-secondary institutions participating in federal student aid programs to publish annual reports on gender equity in intercollegiate sports. In compliance with the EADA, Minnesota State Mankato prepared its first Equity Act report by October 1, 1996. Updated reports are released by October 15 of each subsequent year. Included is data on the amount of money spent on men’s and women’s teams and recruiting efforts, participation rates, personnel and operating expenses, revenues generated, and sports related financial aid allocations. The report is readily accessible to students, prospective students and the public. Contact Finance and Administration, 238 Wigley Administration Center, 507-389-6621.

Student Right-to-Know and Campus Security Act 1995. The Student Right-to-Know and Campus Security Act increased the level of information universities must collect and provide to current and prospective students and employees and to the Department of Education. The first part of the act, entitled the Student Right-to-Know Act, requires colleges and universities to compile and release institution-wide graduation rates for all students, with more detailed statistical information submitted on the graduation rates of athletes. The graduation rate for Minnesota State Mankato new entering first year students, fall term 2001 cohort, is 50 percent. This percentage reflects the number of first time, full-time four-year degree seeking students either who received a baccalaureate degree within six years or an associate degree within three years. The 2001 cohort is the most recent one for which a six year graduation rate is available.

Part II of the act, entitled the Campus Crime Awareness and Campus Security Act of 1990, requires colleges and universities to annually make available to all current employees and students as well as to applicants for enrollment or employment the following information: 1) a description of policies concerning the security of and access to all campus facilities; policies and procedures for reporting campus crime; and policies concerning law enforcement along with crime prevention educational programs relating to campus security, and 2) statistics concerning the occurrence of certain categories of campus crimes. Institutions are also required to issue timely warnings to the campus community about criminal activities representing a continued safety threat to aid in crime prevention. In addition, the University complies with the 1998 Higher Educa-
DEGREES

Minnesota State Mankato offers programs leading to undergraduate certificates, associate of arts degree, baccalaureate degrees, master’s degrees, graduate certificates, education specialist degrees and doctoral degrees. (The Graduate Studies Bulletin contains complete information regarding graduate degree programs.)

Please note that for any degree program, completion of a major and a minor in the same discipline is not permitted. Usually a minor is not required if two or more majors are completed on the same degree. Some majors do require specific minors to be completed. Please be aware that we only award a specific undergraduate degree once. Students can always add majors and minors to a degree. No majors appear on the diploma, only on the transcript.

BACCALAUREATE DEGREES

The baccalaureate degrees available are Bachelor of Arts (BA), Bachelor of Fine Arts (BFA), Bachelor of Music (B.Mus.), Bachelor of Science (BS), Bachelor of Science in Electrical Engineering (BSEE), Bachelor of Science in Civil Engineering (BSCC), Bachelor of Science in Computer Engineering (BSEC), Bachelor of Mechanical Engineering (BSME), and Bachelor of Science in Social Work (BSSW). Students seeking teacher licensure pursue a Bachelor of Science degree. These degrees are generally based upon four years of study and require satisfactory completion of 120 credits (or up to 128 for certain programs).

Bachelor of Arts (BA). The Bachelor of Arts degree emphasizes both breadth and depth in its curriculum.

BA candidates usually complete a major not exceeding 40 semester credits and a minor not exceeding 20 semester credits, plus general education and elective credits. Certain broad majors which exceed 47 semester credits do not require the completion of a minor.

BA degrees require completion of one full sequence (minimum 8 credits) of a single modern language (including American Sign Language) at the elementary or intermediate level. Please consult the Department of World Languages & Cultures for acceptable sequences.

BA candidates who wish to qualify as secondary school teachers may do so by completing the requirements for the Bachelor of Science (teaching) plus the professional education and other secondary teaching requirements described in the Bachelor of Science program for licensure. Students will then earn a Bachelor of Science (teaching) in addition to, or instead of the Bachelor of Arts. They may alternatively choose to complete the Master of Arts in Teaching degree described in the Minnesota State Mankato Graduate Catalog.

Bachelor of Fine Arts (BFA). The Bachelor of Fine Arts degree program is designed for students who desire a professional career in the Fine Arts, Creative Writing and Theatre.

Bachelor of Music (B.Mus.). The Bachelor of Music degree program is designed for students who aspire toward a professional career in music. The music major for the B.Mus. degree has been designated as a broad major and, therefore, does not require the completion of a minor. Vocal majors seeking the B.Mus. degree should complete 8 semester credits for elementary or intermediate foreign language coursework as part of the degree requirements.

Bachelor of Science (BS). The Bachelor of Science degree emphasizes professional or technical preparation. BS candidates usually complete a major not exceeding 40 semester credits and a minor not exceeding 20 semester credits, plus general education and elective credits. Certain broad majors which exceed 47 semester credits do not require the completion of a minor.

Bachelor of Science in Electrical Engineering (BSEE). This degree is a professional degree designed for students planning a career in Electrical Engineering.

Bachelor of Science in Civil Engineering (BSCC). This degree is a professional degree designed for students planning a career in Civil Engineering.

Bachelor of Science in Computer Engineering (BSEC). This degree is a professional degree designed for students planning a career in Computer Engineering.

Bachelor of Science in Engineering (BSE). This degree is a professional degree designed for students planning a degree in General Engineering.

Bachelor of Science in Mechanical Engineering (BSME). This degree is a professional degree designed for students planning a career in Mechanical Engineering.

Bachelor of Science in Social Work (BSSW). This degree is designed for students preparing for a professional career in the social work field.

ASSOCIATE DEGREES

Associate of Arts (AA). The Associate of Arts (AA) degree can only be earned through the Liberal Studies program. Students must complete the general education requirements plus 16 credits of lower division electives for a total of 60 semester credits. This Associate of Arts (AA) degree is intended for those students who wish to pursue a two-year balanced program of liberal education.

NON-DEGREE PROGRAMS

Pre-Professional Programs. The purpose of the pre-professional program is to provide students with the intellectual and academic background they will need before continuing their education at other institutions. Acceptance to professional educational institutions is usually contingent upon academic performance; therefore, students enrolling in pre-professional programs should be highly motivated and realize they are expected to maintain high standards of excellence.

Certificate. These programs provide evidence of specialized study and expertise in given fields such as non-profit leadership.

A certificate is awarded to students who satisfactorily complete a prescribed course of study and/or a qualifying examination. Program descriptions, with specific requirements, are given under departmental headings.

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**ACADEMIC STANDARDS**

This Catalog only provides a review of the most frequently consulted academic policies and procedures. Please note that the official and entire version of each University policy is available on the University’s Policy website (http://www.mnsu.edu/policies/).

**ACADEMIC HONESTY**

As members of this University community, students assume the responsibility to fulfill their academic obligations in a fair and honest manner. This responsibility includes avoiding inappropriate activities such as plagiarism, cheating or collusion. Students found responsible for one or more of these activities may face both academic sanctions (such as lowering a grade, failing of a course, etc.) and disciplinary sanctions (such as probation, suspension, or expulsion).

It is the intent of Minnesota State University, Mankato to encourage a sense of integrity on the part of students in fulfilling their academic requirements. To give students a better understanding of behaviors that may constitute academic dishonesty, the following definitions are provided.

Plagiarism: Submission of an academic assignment as one’s own work, which includes critical ideas or written narrative that are taken from another author without the proper citation. This applies both to direct quotes and to critical ideas paraphrased by the student. Plagiarism includes but is not limited to:

- submitting the work of others as your own;
- submitting others’ work as your own with only minor changes;
- submitting others’ work as your own without adequate footnotes, quotations, and other reference forms; or
- multiple submission of the same work, written or oral, for more than one course without both instructor’s permission, or making minor revisions on work which has received credit and submitting it again as new work.

Cheating: Use of unauthorized material or assistance to help fulfill academic assignments. This material could include unauthorized copies of test materials, calculators, electronics, crib sheets, help from another student, etc.

Collusion: Assistance to another student or among students in committing the act of cheating or plagiarism.

The official version of the entire policy is available on the University’s Policy website (http://www.mnsu.edu/policies/).

**ACCESS FOR STUDENTS WITH DISABILITIES**

A qualified individual with a disability must be ensured the same access to programs, opportunities, and activities at the University as all others.

All programs, services, and activities of the University when viewed in their entirety, will be accessible to and usable by qualified students with disabilities. All classes, meetings, programs, or other events will be held in facilities that are accessible. Announcements of meetings or other events will contain a statement indicating the availability of accommodation of disabilities upon request.

Requests for accommodation must be initiated by the student and supported by documentation of the disability indicating a current need for accommodation. Reasonable accommodations may include the following: alterations to rules, policies, or practices, removal of architectural or communication barriers, or the provision of auxiliary aids.

Minnesota State Mankato has the right to refuse to provide an accommodation that poses a direct threat to the health and safety of others, constitutes a substantial change or alteration to an essential element of a course or program, results in undue financial or administrative hardship, or is considered a personal device or service (i.e. wheelchairs, hearing aids, personal transportation).

The official version of the entire policy and procedure statement, including statements of responsibility, confidentiality of records and discrimination appeal procedures, is available on the University’s Policy website (http://www.mnsu.edu/policies/).

**ADMINISTRATIVE DROP**

Courses in which it is anticipated that enrollment demand will exceed course capacity may be designated as Administrative Drop courses. Administrative Drop refers to a process whereby a student’s enrollment in a course is terminated by action of an academic department.

In these courses, an Administrative Drop will be processed for students who fail to attend the first class session, unless an acceptable reason for the absence is provided to the instructor or designated contact prior to that session. For online courses, an Administrative Drop will be processed for any student who does not electronically log into his/her class before or during the first day of the academic term.

Courses to which this policy applies will be designated in the class schedule each semester. An administrative drop will not result in a grade of “W” being entered on the student’s transcript.

Students are responsible for confirming their status in courses and should not assume they are automatically dropped for non-attendance.

The official version of the entire policy is available on the University’s Policy website (http://www.mnsu.edu/policies/).

**ASSESSMENT OF ENGLISH LANGUAGE PROFICIENCY OF INTERNATIONAL STUDENTS**

International students who are enrolled in undergraduate bachelor’s degree programs at Minnesota State University, Mankato and who need to complete general education goal area 1B: Speech and Oral Reasoning must demonstrate their readiness to succeed in the courses in that goal area through one of the following means:

- a Test of English as a Foreign Language (TOEFL) score of 575 or above (paper-based), 232 or above (computer-based), 89 or above (web-based),
- or, an academic International English Language Testing System (IELTS) score of 6.5 or above.

International students with TOEFL scores below 575 (paper-based), below 232 (computer-based), below 89 (web-based), or academic IELTS scores below 6.5 must take the Accuplacer Listening Test and pass it with a score of 90 or higher to be able to enroll in CDIS 201, CMST 100, CMST 102, CMST 212, or POL 234.

Students with a score below 90 must pass English 105 with a grade of “C” or higher before enrolling in CDIS 201, CMST 100, CMST 102, CMST 212, or POL 234.

International students enrolled in bachelor degree programs must also follow the English 101 Placement policy.

**CONTINUANCE AND COMPLETION IN A MAJOR**

In order to support students’ learning and success in completion of their undergraduate education, Minnesota State University, Mankato establishes and upholds standards of performance within academic majors. Failure to meet any of the continuation requirements of the department, program, school or college of the student’s declared major may result in the student being discontinued in the major. A review will be initiated if performance issues arise. Identified deficiencies are to be based on observable behaviors and measurable performance indicators that may include ethical codes or standards important to a profession. Depending on the nature of the deficiencies identified, disciplinary action may also be initiated and imposed by the University.

Notice of students’ rights and responsibilities in pursuing successful completion of program requirements will be provided in departmental brochures and websites. Each department/program shall inform students of any changes to program requirements. Under exceptional circumstances, Department/Program requirements may be adjusted at the discretion of the designated person. In consultation with the Disability Services Office, the Department/Program may also adjust program requirements when reasonable accommodations would enable an otherwise qualified individual to successfully complete program requirements without significantly altering the program.
International Baccalaureate (IB) Credits. Minnesota State Mankato may award academic credit to students who complete an International Baccalaureate diploma in high school. Students may earn specific University course credits by demonstrating a specified level of performance on selected higher level (HL) (SL) standardized IB examinations taken prior to enrolling at the University. Students must forward IB examination scores to the University to initiate the credit review process. IB credits granted by other colleges/universities do not automatically translate into course credits at Minnesota State Mankato. Original IB examination scores must be submitted for determination of credits to be awarded.

The official version of the entire policy, including procedures, is available on the University’s Policy website (http://www.mnsu.edu/policies/).

College Level Examination Program (CLEP). Minnesota State Mankato awards academic credit if certain scores are achieved on College Level Examination Program (CLEP) tests. Minnesota State Mankato grants credits based on the American Council of Education’s (ACE) recommended credit-granted score guidelines for all computer-based general or subject exams if a score of 50 or greater is obtained (based on a CLEP 20-80 scale).

Students are not eligible to take CLEP exams that cover University course work for which credit has already been earned at any current or prior college/university. CLEP credits granted by other colleges/universities do not automatically translate into course credit at Minnesota State Mankato. Original examination scores must be submitted for determination of credits to be awarded. Students will not be awarded double credit for a course if both General and Subject exams have been taken.

The official version of the entire policy, including the procedures, is available on the University’s Policy website (http://www.mnsu.edu/policies/).

Military Service Credits. This policy was undergoing review by the University community during the printing of this catalog. The official version of the entire policy is available on the University’s Policy website (http://www.mnsu.edu/policies/).

Project Lead the Way. This policy was undergoing review by the University Community during the printing of the catalog. The official version of the entire policy, including procedures, is available on the University’s Policy website (http://www.mnsu.edu/policies/).

Dean’s List/Academic Honors

An undergraduate student who carries 12 or more credits for a grade (not including P/N) during fall or spring semester and achieves a grade-point average of 3.5, with all grades reported without incomplete grades or a grade in-progress when the report is run 6 weeks after the end of each term, will be included on the Academic Honors List (Dean’s List) for that semester. The words “Dean’s List” will appear on the transcript. If a 4.0 grade-point average is achieved, the student will also be on the Academic High Honors List.

English 101 Placement

Students who have been admitted to undergraduate degree programs at Minnesota State University, Mankato, and who need to complete English 101 must demonstrate readiness to succeed in English 101 through one of the following means:

- an ACT English score of 18 or above,
- an SAT writing score of 440 or above,
- or, if the student is an international student, a Test of English as a Foreign Language (TOEFL) score of 575 or above (paper-based), 232 or above (computer-based), 89 or above (web-based), or an academic International English Language Testing System (IELTS) score of 6.5 or above.

ACT/SAT

Students with ACT English scores below 18, students with SAT writing scores below 440, or students admitted to the university without an ACT English score or SAT writing score must take the Accuplacer Reading Comprehension Test and pass it with a score of 78 or higher to enroll in English 101.
If his or her Accuplacer Reading Comprehension test score is below 78, the student must pass either English 100 or English 206 or English 207 with a grade of "C" or better before enrolling in English 101.

TOEFL/IELTS

International students with TOEFL scores below 575 (paper-based), below 232 (computer-based), below 89 (web-based), or with an academic IELTS scores below 6.5 must take both the Accuplacer ESL Reading Test and the Accuplacer WritePlacer.

International students with an Accuplacer Writeplacer score of 6 can enroll in English 101, and students with both an Accuplacer ESL Reading test score of 110 or higher and an Accuplacer Writeplacer score of 4 or 5 can also enroll in English 101.

International students with either (1) an Accuplacer WritePlacer score below 4 or (2) an Accuplacer ESL Reading test score below 110 and an Accuplacer WritePlacer score of 4 or 5 must pass either English 100 or English 206 or English 207 with a grade of C before enrolling in English 101.

The official version of the entire policy, including procedures, is available on the University’s Policy website (http://www.mnsu.edu/policies/).

Grade Appeals

Students have the right to ask an instructor for an explanation of any grade received. Grade appeals are reviewed in instances where students perceive that a final grade is unfair, arbitrary, or capricious. Appeals must be filed within two weeks of University notification of a final grade. Students needing assistance at any step in appealing or filing a complaint may contact the Academic Affairs Coordinator of the Student Senate (280 Centennial Student Union; phone 389-2611). Note: Students are encouraged to talk to their instructors before beginning this process to attempt to resolve the matter informally.

The official version of the entire policy is available on the University’s Policy website (http://www.mnsu.edu/policies/).

Grading

A student’s work in any course will be evaluated in accordance with the following system of letter grades: A, B, C, D, F, NC and P.

Note: Consult the Office of the Registrar (Dates page) for the deadline pertaining to change of grading system at www.mnsu.edu/registrar

A represents work of definitely superior quality
B represents a better-than-average level of performance.
C represents an average-level of performance.
D represents below-average performance.
F represents an unacceptable level of performance (regular graded courses).
NC represents an unacceptable level of performance (P/N graded courses).
P represents passing performance (P/N graded courses).

In addition to use of straight A, B, C, D, F, NC and P letter grades, faculty members will have the option of using +/- additions.

Pass/No Credit. Under the pass/no credit (P/NC) system, a student may register for a course with the understanding that a P will be recorded if passed. If the course is not passed, no credit will be given and an NC will be recorded on the permanent record. Whether the indication is P or NC, the hours taken will not affect the grade-point average.

To receive a P, the student will be required to perform at "C" (2.0) level or better. "C-" does not constitute a passing grade.

Individual departments may offer pass/no credit courses at any level of undergraduate instruction. Departments offering courses at the graduate level may use Pass/No Credit grades for theses, individual study courses, practicums, workshops, tours, seminars, and internships in the major field. They may not use Pass/No Credit grades for other courses in the student’s major without specific approval of the Dean of the College of Graduate Studies and Research.

Courses taken for P/NC may be applied to major or minor requirements for graduation but only at departmental discretion. Each student has the responsibility to determine individual departmental policy in this regard. A limited number of P/NC units are accepted to apply toward a major and no more than 32 credits of the total undergraduate degree requirements may be earned in pass/no credit courses. Courses offered for only P/NC grading are exempted from the one-fourth computation.

Incomplete Grades. The grade of “incomplete” is reserved for special cases and means that, because of extenuating circumstances, the student failed to meet an important requirement of the course, but has in other respects done passing work for the semester. The incomplete must be made up in the next semester in which the student is enrolled, unless other arrangements have been made between the student and instructor who assigned the grade. The instructor must file an “Extension of an Incomplete” form with the Office of the Registrar if more time is to be granted. If the deficiency is not made up within the specified time, the grade automatically becomes an “F” (regular-graded course) or NC (P/NC graded course).

Students making up an incomplete should not re-register for the class. Students making up incompletes cannot be used for enrollment or financial aid verification in subsequent terms.

In-Progress Grades. The grade of “in-progress” is reserved for courses that are designed not to be completed by the end of the term.

Quality Points. Quality points (grade points) are determined on the basis of letter grades. The number of quality points earned for a course may be determined by multiplying the number of points the grade commands by the number of credits the course carries. Quality point calculations are as follows:

A+ = 4.00 A = 4.00 A- = 3.67 B+ = 3.33 B = 3.00
B- = 2.67 C+ = 2.33 C = 2.00 C- = 1.67 D+ = 1.33
D = 1.00 D- = 0.67 F = 0 P= 0 NC= 0

Grade-Point Average (GPA). The total number of quality points acquired by the student divided by the total number of credit hours attempted on a regular grade basis, is called the grade-point average (GPA). For example, if a student has earned 102 quality points and has completed 48 credits of work, the grade-point average is 102 divided by 48, or 2.12. Grades of NC and P have no effect upon the calculation of a grade-point average. The cumulative GPA includes transfer work and Minnesota State Mankato credits.

This policy was undergoing review by the University community during the printing of this catalog. The official version of the entire policy is available on the University’s Policy website (http://www.mnsu.edu/policies/).

Undergraduate Graduation Requirements (This policy is under review)

Baccalaureate Degree

To be eligible for graduation with a baccalaureate degree from Minnesota State University, Mankato, a student:

1. Must have earned a minimum of 120 semester credit hours; some programs may be in excess of 120 credits.
2. Must have a cumulative (including transfer credits) and a local Minnesota State Mankato grade point average (GPA) of at least 2.0.
3. Must have all grades finalized (all grades of I, IP, or Z may not be on the permanent record).
4. Must have completed at least 40 semester credits of upper-division (300-400) courses.
5. Must have completed the Minnesota State Mankato general education requirements or the Minnesota Transfer Curriculum.
6. Must meet the Minnesota State Mankato Cultural Diversity or Diverse Cultures requirement, whichever is applicable.
7. Must meet the Minnesota State Mankato writing-intensive requirement.
8. Must not complete more than one quarter of total degree credits with a pass/no credit grade.
9. Must meet the requirements for an academic major:
   a. Standard Majors are 32-47 credits. Standard majors require completion of a minor. Departments may recommend waiver of a minor for students completing a double major.
   b. Broad majors exceed 47 credits and do not require a minor.
   c. Academic requirements for majors and minors may be more stringent than university minimum requirements.
10. Must graduate under requirements identified in a catalog of no more than seven years preceding the date of graduation. Students also must complete all of the requirements under a single catalog.
11. Must have earned at least 30 semester undergraduate credit hours from Minnesota State Mankato. Departments and Colleges may have more stringent residency requirements.

Associate in Arts Degree
To be eligible for graduation with an Associate in Arts (AA) degree from Minnesota State University, Mankato, a student:
1. Must have earned at least 60 semester credit hours.
2. Must have completed the Minnesota State Mankato general education program. Completion of the Minnesota State Mankato general education program is required as part of the AA degree program and completion of general education meets the Minnesota Transfer Curriculum requirements.
3. Must have a cumulative (including transfer credits) and a local Minnesota State Mankato grade point average (GPA) of at least 2.0.
4. Must have all grades finalized (all grades of I, IP, or Z may not be on the permanent record).
5. Must not exceed 15 credits of P/NC grading.
6. Must have earned at least 20 credits from Minnesota State Mankato.

Graduation with Honors
To qualify for graduation with honors (Cum Laude, Magna Cum Laude or Summa Cum Laude), a student:
1. Must meet all requirements for a bachelor’s degree.
2. Must earn a minimum of 40 semester undergraduate credit hours from Minnesota State Mankato.
3. Must have the appropriate minimum cumulative (including transfer credits) grade point average (GPA) to satisfy honor requirements:
   a. Cum Laude: minimum cumulative GPA of 3.3
   b. Magna Cum Laude: minimum cumulative GPA of 3.5
   c. Summa Cum Laude: minimum cumulative GPA of 3.8

For a student’s name to be listed in the Commencement Program as graduation with honors, the GPA requirements must be met the semester BEFORE graduation. While the number of credit hours earned during the graduation term does not affect the determination of graduation honors for recognition at Commencement, quality points earned during the graduation term are considered in calculating the final GPA which determines the graduation honors for the transcript and diploma. To be recognized in the Commencement Program as achieving graduation honors, students must be graduating the term in which commencement is held.

Applying for Graduation
Applications must be made no later than one calendar year prior to the expected graduation term. A minimum of ten weeks must be allowed for application processing and notification. Applications received within two weeks of graduation day will be moved to the next graduation term. Forms are obtained from the Office of the Registrar reception area or the Hub and are processed in the order in which they are returned to that office.

Catalog Expiration
The privilege of graduating under the requirements of an undergraduate catalog extends no longer than seven years from the term of the student’s original enrollment.

The requirements outlined in this catalog become effective at the beginning of the fall semester of 2015. Although no student can graduate under requirements outlined in a catalog of more than seven years preceding the date of graduation, the student may elect to graduate under a more recent catalog. However, students must complete all the requirements under a single catalog, except for new programs.

Note: While specific requirements for a degree may expire or change, students never “lose” college credits they have earned. They may have to take additional coursework, or fulfill different requirements to obtain a degree under a new catalog.

Minimum Credits
Graduation with an associate degree is based upon successful completion of a minimum of 60 semester hours of credit. Graduation with a baccalaureate degree requires a minimum of 120 semester hours of credit (or up to 128 for certain programs).

Majors
A standard major has a minimum of 32 semester credits and requires a minor. A broad major has a minimum of 48 semester credit hours and requires no minor. Students may earn more than one major.

Minor
Students completing a standard major of 32 to 47 credits must complete a minor (which is a minimum of 16 credit hours). At the department’s recommendation a required minor may be waived for a student completing a double major within the same degree. Required minors may also be waived at the department’s recommendation for a student adding a major to a previous baccalaureate degree. In either case, students must complete a total of 120 semester hours of credit (or up to 128 for certain programs).

Minor for Teaching Majors
A minor will not be required for Teaching majors. Unless they have more than 48 credits in addition to the 30 professional education credits, teaching majors are not considered broad majors. This does not prohibit a teaching major from requiring a minor. All teaching majors must have a minimum of 32 required credits outside of the required 30 credits in professional education.

Major and Minor in Same Discipline
Please note that for any degree program, completion of a major and a minor in the same discipline is not permitted. Usually a minor is not required if two or more majors are completed on the same degree. Some majors do require specific minors to be completed.

Returning Student and Honor Designations
Returning students adding a new major or minor will not be eligible for receiving additional honor designations. However, if a student is seeking a different degree, they qualify for university honors under the current code system.

Graduation Date Policy
The graduation date reflected on all university documents is the date that all degree requirements are completed. Students who enroll for courses, internships or other special projects during their final semester (the semester of graduation) but do not complete the course, internship or project until after the graduation date for that semester have one additional year to remove grades of “I” or “IP”. Special cases will be treated individually upon appeal to the Office of Academic Affairs.

Last Day of Attendance
The University is obliged to provide attendance information to various stakeholders about certain student populations, e.g. student athletes, international students on student visas, and students who receive Financial Aid or funding as veterans.

This information is collected from instructors for each course twice each term: during Mid-Term Reporting for advising purposes, and at the end of the term when grades are submitted. End-of-term Last Day of Attendance (LDA) information is only collected if a student receives a grade of “F” or “NC” for a particular course.

Instructors define what attendance means for each course. In general, the “last day of attendance” is considered to be:
- the last day the student attended class in courses in which attendance is taken by the instructor
- the last day on which a student submitted an assignment, quiz, or test
- or the last day on which a student actively participated in a group or online activity in classes in which attendance is not regularly taken.

The official version of the entire policy is available on the University’s Policy website (http://www.mnsu.edu/policies/).
MAKE-UP WORK AND MISSED CLASSES

Students represent the University through participation in University sponsored or sanctioned activities, such as the arts, theater, music, forensics, and intercollegiate athletics. When the activity schedule occasionally conflicts with academic obligations, student-participants will follow a standard protocol to provide their faculty members with prior written notification of their absences from classes. Faculty members will determine, in consultation with student-participants, how missed classes and assignments are made up in a manner that fulfills academic obligations and accommodates participatory obligations.

Except for absences resulting from sponsored or sanctioned activities, student-participants have the same responsibility with regard to class attendance and assignments as do all other students.

University-sponsored activities are defined as those activities that involve Minnesota State University, Mankato students serving as representatives of the university in:

- National Collegiate Athletic Association (NCAA) athletic competitions.
  - Competition time includes time required to travel to and from the competition.
  - Practices, exhibitions and scrimmages are not NCAA competitions and are not included in this policy.
- This policy also does not apply to Minnesota State Mankato Club Sports
- Presentations and performances involving theater, music or forensics students when such activities are requirements for the students in those activities. Regularly scheduled practices and rehearsals are not included in this policy.

The official version of the entire policy, including the required procedures for informing faculty about absences is available on the University’s Policy website (http://www.mnsu.edu/policies/).

MAXIMUM CREDIT REGISTRATION LIMIT

Undergraduate students who are otherwise eligible for registration may register for up to 18 credit hours per term with no additional permission. Students should note that, under current University policy, banded tuition only applies up to 18 credits. All credits over 18 are not included in the band.

To register for 19-21 credits, an undergraduate student needs written permission from his or her advisor and the chair of the department in which the student is registered as a major. To register for 22-24 credits, an undergraduate student needs written permission from his or her advisor, the chair of the department in which the student is registered as a major and the dean of that college (or designee). To register for 24-27 credits, an undergraduate student needs written permission from his or her advisor, the chair of the department in which the student is registered as a major, the dean of that college (or designee) and the Assistant Vice President for Undergraduate Education (or designee). Students who have yet to declare a major must work with an advisor in the program in which they are planning to major.

An undergraduate student is allowed to register for more than 27 credits only under exceptional circumstances. Students seeking to register for more than 27 credits must get written permission from his or her advisor, the chair of the department in which the student is registered as a major, and the dean of that college (or designee). The student must then make an appointment to meet with the Assistant Vice President for Undergraduate Education (or designee) to explain the need for registration in excess of 27 credits.

The official version of the entire policy is available on the University’s Policy website (http://www.mnsu.edu/policies/).

PRIORITY REGISTRATION

In order to accommodate student groups impacted by schedules or other constraints outside their control, approved groups will be allowed to register in advance of the regular registration period. The policy is tailored to allow students to have access to general education and lower division (100-200) courses, many of which have multiple sections, so that students can have access to the sections that allow them to attend class while accommodating their specific obligations or circumstances which would otherwise hinder timely academic progress. Priority registration begins during the second term of full-time study (12 credits or more). Designated students may use priority registration until they have earned 64 credits. However, in cases where a need for priority registration can be demonstrated beyond this 64-credit threshold, an appeal process is available through the Registrar’s Office.

The following student groups or cohorts are allowed priority registration prior to the regular registration timeframe:

1. Officially recognized University programs: Programs such as student-athletes, forensic students, theatre students, and music students. A 24-48 hour priority registration timeframe prior to the start of regular registration is granted for eligible students participating in university-sponsored programs.
2. Students registered with the Minnesota State Mankato Office of Disability Services: Students with documented disabilities which require special attention in the scheduling process obtain authorization from the Office of Disability Services. These students are allowed a one-week priority registration time frame prior to the start of regular registration.
3. Military members and veterans: Determination of students eligible for priority registration is made through the use of VA educational benefits, verified by the certifying official in the Office of the Registrar. Those students otherwise eligible under this category, but not currently using VA education benefits must self-identify to the certifying official and provide proof of current military membership or veteran status (this policy excludes dependents of veterans and military members). A 24-48 hour priority registration timeframe prior to the start of regular registration is granted for eligible military members and veterans.
4. Additional eligibility for priority registration: Other student groups or cohorts seeking priority registration status need to have the program advisor or administrator submit a request with the following information:
   1. Group or cohort designation
   2. Reason for request
   3. Evidence of need for priority registration

The following criteria will be used to determine eligibility for priority registration:

1. The student group must have a documented need for priority registration through participation in a university sponsored activity or program which would slow academic progress without registration flexibility.
2. Participation or membership in the student group must be clearly defined.
3. The student group must exhibit evidence that priority registration will have a positive impact on academic progress and help alleviate scheduling difficulties inherent to their membership in that student group.

Requests are submitted to the Assistant Vice President for Undergraduate Education, who then convenes a committee comprised of the Vice President of Student Affairs and Enrollment Management, the Director of Admissions, the Registrar, a Student Relations Coordinator, a Faculty Association appointed member, and a MSSA appointed member. The committee reviews requests from groups seeking priority registration and sets review eligibility timelines for these additional groups. Requests must be submitted by October 1 to be considered for the next academic year’s registration. The committee makes recommendations to the Assistant Vice President who acts in coordination with the Registrar. Upon approval of priority registration:

1. Notification is sent from the Assistant Vice President to the Registrar.
2. The list of students eligible for priority registration is documented by the appropriate department or program administrator, and the list is supplied to the Registrar a minimum of one month prior to the start of the next term’s registration period.
3. Students on this documented list are allowed to register during the designated period prior to the start of the regular pre-registration period.

The official version of the entire policy is available on the University’s Policy website (http://www.mnsu.edu/policies/).
**Satisfactory Academic Progress for Undergraduate Students**

*(This policy is under review)*

Satisfactory Academic Progress for undergraduate students is defined as both:

- achieving a ("local") cumulative grade point average (GPA) of 2.0 or higher. Transfer credits are not included in calculating satisfactory GPA.
- maintaining a Minnesota State University, Mankato cumulative satisfactory credit completion rate of at least 67%. Transfer credits are included in calculating satisfactory credit completion rate.

The Grade Point Average (GPA) is the total number of quality points earned by the student, divided by the total number of credit hours attempted on a regular grade basis. Please refer to the University Grading Policy for the quality point calculations. Courses in which a P or NC is earned are not included when calculating GPA.

Credit Completion Rate (CCR) is defined as the total number of earned credit hours divided by the number of total attempted credit hours. Courses which have received grades of A (+/-), B (+/-), C (+/-), D (+/-), and P are considered attempted/earned credits and courses assigned grades of F, NC, I, IP, W or Z are only considered attempted credits. Courses taken as Audit (AU) have no grade point value and are not considered attempted credits. Credits taken as Audit are excluded for calculation of the Credit Completion Rate.

The University Student Financial Aid Eligibility Satisfactory Academic Progress (SAP) Standards Policy maintains academic standards that are at least as strict as the standards established in this academic policy.

**Academic Warning.** After one semester (this includes summer session) of failing to meet the Satisfactory Academic Progress requirements, a student will receive an academic warning. The University will place a registration hold on students who receive an academic warning. Students must follow the process for students on warning in their respective colleges. Students who receive an academic warning should contact the Student Relations Coordinator/designated advisor in their college, or the Office of New Student & Family Programs.

**Academic Suspension.** After two consecutive semesters (this includes summer session) of failing to meet the Satisfactory Academic Progress requirements, a student will be suspended from Minnesota State University, Mankato.

Academic suspension disqualifies a student from further enrollment. If a student has already registered for the next term, the classes will be dropped.

**Academic Reinstatement Following Suspension.** Reinstatement is the process involved to allow a suspended student to return to the University.

**Regular Reinstatement:** Normally, students who have been suspended will be reinstated after one year away from the University. No committee appeal is necessary for regular reinstatement. Here is the link to the application. [http://www.mnsu.edu/acadaf/appeals/applicationacademicreinstatement.pdf](http://www.mnsu.edu/acadaf/appeals/applicationacademicreinstatement.pdf)

**Early Reinstatement:** A suspended student may apply for early reinstatement (after one semester away from the University) if he or she had extenuating circumstances and documented them in a successful appeal to the Academic Standing Committee during the semester following suspension. Here is the link to the application. [http://www.mnsu.edu/.acadaf/appeals/applicationacademicreinstatement.pdf](http://www.mnsu.edu/.acadaf/appeals/applicationacademicreinstatement.pdf)

**Immediate Reinstatement:** A suspended student may receive immediate reinstatement and be allowed to continue his/her studies on probation in the term directly following suspension if one of the following conditions is achieved:

1. During the most recent term, the student achieved a term GPA of 2.5 and a term credit completion rate of 75%. Immediate reinstatement will be automatic in this case.
2. The student had extenuating circumstances and documented them in a successful appeal to the Academic Standing Committee during the warning semester. Extenuating circumstances could include major health problems, family emergencies, or unforeseen, traumatic personal circumstances.

All reinstated students will be on academic probation.

**Academic Probation.** Students may continue on probation as long as they meet the probation term requirements which are a minimum local term GPA of 2.5 and a minimum term credit completion rate of 75%. Students on probation who fail to meet these requirements, will be suspended again. The University will place a registration hold on students who are probationary students. Students on probation must follow the process for students on probation in their respective academic college(s).

The official version of the entire policy is available on the University’s Policy website ([http://www.mnsu.edu/policies/](http://www.mnsu.edu/policies/)).

**Student Complaints and Grievances.**

Minnesota State University, Mankato has a commitment to a respectful learning environment. Students have the right to seek a remedy for a dispute or disagreement when they believe a campus office/department or a Minnesota State employee treated them in an improper, unfair or arbitrary manner. Examples include, but are not limited to: bullying, condescension, inattentive planning, intimidation, particularistic treatment, poor customer service, rudeness and undefined course expectations. This policy does not apply to Minnesota State, Mankato or MnSCU System rules or regulations that include an existing appeal or grievance process, including policy or procedure change.

The official version of the entire policy is available on the University’s Policy website ([http://www.mnsu.edu/policies/](http://www.mnsu.edu/policies/)).

**Transfer Policies.**

In accepting transfer work, Minnesota State Mankato uses all transferable grades A-D in calculating transfer earned hours and the grades A-F in the transfer GPA. Additionally, all transfer grades are used in calculating a student’s cumulative grade point average.

**General Education Requirements. Baccalaureate Graduates.** Students with an accepted Baccalaureate degree will have satisfied Minnesota State Mankato’s general education requirements for a Bachelor of Science degree. These same baccalaureate guide lines apply to the requirements for a Bachelor of Arts degree. However, if not previously completed, 8 semester credits of foreign language or 9 credits of American Sign Language are also required if completing a BA at Minnesota State Mankato.

**General Education Requirements. Associate of Arts Graduates (AA).** Students from Minnesota Community Colleges with an AA degree will have satisfied the general education/Minnesota Transfer Curriculum (MnTC) requirements for the Bachelor of Science (BS) degree.

Students with an AA degree from other regionally accredited US community or two year colleges will satisfy the general education requirements of the BS degree if their AA contains 40 semester (60 quarter) credit hours of general education coursework. This coursework must be equivalent to the Minnesota State Mankato general education/liberal arts courses. If the AA degree contains less than the required general education requirements, additional general education coursework will be required to make up the difference prior to graduation.

**General Education Requirements. Associate of Science (AS)/Associate of Applied Science (AAS) Graduates.** Students from Minnesota Community and Technical Colleges with AS and AAS degrees may not have the entire general education/MnTC completed. Prior to graduation additional general education coursework will be required to make up the difference, using the distribution listed below.
Distribution: Transfer AS/AAS degrees must have 40 credits in Categories 1-10; a minimum of 1 course in each of Categories 3-10; and one course in each part of Category 1. Categories 2 and 11 are exempt. (See “ Advising General Education and Diverse Cultures” section in this catalog).

Non-degree transfer students. Students without an associate or baccalaureate degree, or a completed Minnesota Transfer Curriculum, are obligated to follow and complete the Minnesota State Mankato general education requirements. (See “ Advising, General Education and Diverse Cultures” section in this catalog).

Minnesota Transfer Curriculum (MnTC). Students transferring with a completed MnTC will satisfy Minnesota State Mankato’s general education requirements.

Examination Credits. College Level Examination Program (CLEP), Advanced Placement (AP) and International Baccalaureate (IB) scores are evaluated for the potential awarding of college credit according to Minnesota State Mankato’s academic catalog. Original score reports are required for each of these examination programs.

Diverse Cultures Transfer Requirement. Students transferring to Minnesota State Mankato are required to meet the University’s Diverse Cultures requirement before graduating. The requirement is prorated based on the number of credits transferred. Contact the Office of Academic Affairs for the specific requirements for your particular number of transfer credits and a list of acceptable Diverse Cultures courses. Students who have completed an A.A. degree or transfer with 60 semester hours will have fulfilled the Diverse Cultures requirement.

All transfer students who have taken between 30 and 59 credits and are fulfilling the Diverse Cultures requirement must take at least 1 Purple Course. Transfer students needing to complete 6 or more of Diverse Cultures credit must take courses in at least two different departments. See the Diverse Cultures Graduation Requirement in the academic catalog for specifics.

TRANSFER OF CREDITS FROM TECHNICAL COLLEGES
The sum of all the semester technical credits taken in transfer from all regionally or appropriately accredited technical colleges or community and technical colleges will not exceed 16 semester credits. Credits approved for transfer will be treated as elective credits and will not apply to the major, minor, or to general education. However, students may petition a specific department/major for an evaluation of these technical credits if students believe they are to be applicable to the major. When supported by an articulation agreement between the University and the technical college, (or community and technical college), from which the credits originate, additional credits beyond 16 may be accepted into the major. The articulation agreement must be approved through Minnesota State Mankato’s administration. Additional credits beyond 16 may be accepted as general education with the following requirements:

1. Minnesota Community and Technical Colleges. In addition to the 16 semester technical credits, general education credits taken as part of a vocational/technical degree may also be transferred if the courses are approved Minnesota Transfer Curriculum (MnTC) courses.

2. Other vocational/technical schools. For coursework to be considered applicable to the Minnesota State Mankato’s general education requirements, the school transferred from would have to be regionally or appropriately accredited.

Some technical colleges have merged with community colleges but will accept unlimited community college credits. Minnesota State Mankato reserves the right to determine what a technical credit is and what a community college credit is. The official version of the entire policy, including the policy rationale, is available on the University’s Academic Policy website.

International Credits. In order for any international university credits potentially to apply toward a degree program at Minnesota State Mankato, these credits must be evaluated by an external professional credit evaluation agency recognized by National Association of Credential Evaluation Services (NACES). The College of Science, Engineering and Technology specifically requires and allows only Educational Credential Evaluators (ECE).

University Sponsored Education Abroad Programs
A Minnesota State University, Mankato sponsored education abroad program, defined as a program and course taught entirely or partially outside of the continental United States, is developed and administered by the University and awards Minnesota State Mankato credits. All travelers on Minnesota State Mankato sponsored programs, with the exception of the leader(s) and leaders’ immediate family members, must be enrolled at the University and registered for a minimum of one credit. The program leaders’ primary responsibility for the duration of the program is the educational experience, safety and health of students. Minnesota State Mankato’s administration reserves the right to cancel a program at any time. Cancellations due to unforeseen circumstances will result in the refund tuition and fees subject to established University and/or vendor procedures, as applicable.

Minnesota State Mankato sponsored education abroad programs are subject to the same curricular processes as all other course offerings. Faculty members who wish to conduct a pilot program may have a one-time exception to this requirement, with the expectation that future courses and programs with similar content will be approved through the curriculum design system.

All program leaders must demonstrate access to on-site logistical support and are subject to MnSCU Board of Trustees Policies 1A.10 (Emergency Management), 5.19 (Travel Management) and related procedures. All travelers must carry health, accident and repatriation insurance. If required by the course curriculum, students must also carry student professional liability insurance. All programs must include, and all travelers must attend, a pre-departure health and safety orientation. Travelers under 18 years of age must receive written, parental consent and the parent or guardian must attend the pre-departure health and safety orientation. All travelers are subject to the Minnesota State Mankato’s Statement of Student Responsibilities.

The official version of the entire policy is available on the University’s Policy website (http://www.mnsu.edu/policies/).

Official Withdrawal from the University
Official Withdrawal is defined as terminating enrollment in all registered courses for an academic semester at Minnesota State University, Mankato.

Financial Considerations
- An Official Withdrawal Form, available at the Campus Hub, must be filed in order to receive a percentage refund/credit in accordance with the Official Withdrawal Charts below.
- If you received financial aid, all or a portion of the aid that was disbursed to you and/or your student account may be required to be repaid.
- If the student requesting withdrawal has signed a residence hall contract, an exit interview with the Office of Residential Life is necessary in order to establish financial liability for room and/or board charges for the academic semester up to the date of withdrawal. Credit amounts due to the withdrawing students are determined based on a pro-rated schedule applicable to the individual student’s contract plan.
- Refunds/credits of tuition and fees for withdrawal are based on Minnesota State Colleges and Universities policies and procedures. Please refer to the Campus Hub website for details.

Financial Considerations
- An Official Withdrawal Form, available at the Campus Hub, must be filed in order to receive a percentage refund/credit in accordance with the Official Withdrawal Charts below.
- If you received financial aid, all or a portion of the aid that was disbursed to you and/or your student account may be required to be repaid.
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- Refunds/credits of tuition and fees for withdrawal are based on Minnesota State Colleges and Universities policies and procedures. Please refer to the Campus Hub website for details.
PRE-PROFESSIONAL PROGRAMS
The purpose of pre-professional programs is to provide students with the intellectual and academic backgrounds they need before continuing their education in degrees not offered at Minnesota State Mankato. Acceptance to professional educational institutions is contingent upon academic performance, so students enrolling in pre-professional programs should be highly motivated and realize they are expected to maintain standards of excellence. Advisors play an important role in guiding the students enrolled in such programs so students are urged to contact the advisor before enrolling.

PRE-CIROPRACTIC
College of Science, Engineering & Technology
Advisor: M. Pomije, Ph.D.

Required General Education (33 credits)
CMST 102 Public Speaking (3)
ENG 101 Composition (4)
MATH 112 College Algebra (4)*
MATH 113 Trigonometry (3)*
PSYC 101 Introduction to Psychological Science (4)

An additional 15 elective credits from Humanities or Social Sciences

Recommended Support Courses (3 credits)
HLTH 321 Medical Terminology (3)

Pre-Engineering
College of Science, Engineering & Technology
Advisor: CSET Advising Center

Recommended Support Courses
CMST 102 Public Speaking (3)
ENG 101 Composition (4)
ECON 201 Principles of Macroeconomics (3)
ECON 202 Principles of Microeconomics (3)
MA TH 112 and MA TH 113 or MA TH 115

Pre-Dental
College of Science, Engineering & Technology
Advisory Team: M. Bentley, Ph.D. (for biology majors)
M. Pomije, Ph.D. (for chemistry)

Specific course requirements for admission to dental school vary somewhat among different dental schools in the United States. To be eligible for admission at a particular dental school, the student must fulfill the requirements of that school. Students are encouraged to keep themselves apprised of requirements for specific schools by consulting appropriate websites.

* The following list of courses is consistent with the courses required for admission to the University of Minnesota Dental School.

English. ENG 101, CMST 100 and an additional 4 credits of writing intensive course work in English. (Students are encouraged to take ENG 271W and PHIL 222W as electives)

Biology. BIOL 105, BIOL 106 - students are encouraged to take additional electives from the following list to enhance their knowledge in basic biology: BIOL 211, BIOL 220, BIOL 270, BIOL 316, BIOL 320, BIOL 330, BIOL 435, BIOL 475

Physics. PHYS 211, PHYS 212 or PHYS 221, PHYS 222
CHEM 201 General Chemistry I (5)
CMST 102 Public Speaking (3)
ENG 101 Composition (4)
ENG 271W Technical Communications (4)
MATH 121 Calculus I (4)
MATH 122 Calculus II (4)
MATH 223 Calculus III (4)
PHYS 221 General Physics I (4)
PHYS 222 General Physics II (4)

PRE-LAW
Advisor: Dr. Kevin Parsneau, Ph.D.

A student’s grade-point average and score on the Law School Admission Test are the primary factors on which law schools base their admission decisions. Law schools generally do not require a particular major field or any particular prescribed courses as prerequisites for admission. Most law schools merely require a bachelor’s degree.

Students should select a major field which interests them to increase the likelihood of a high GPA, and to allow them to specialize in a field of law that most interests them. Even though no particular pre-law major is best for all students, there must be substantial academic content in the pre-law education. Students should supplement their major field by taking intellectually demanding courses which will develop broad educational foundations and mental skills required of the successful law student or lawyer the ability to analyze, reason, read carefully, think abstractly, and speak and write precisely. Elective courses might include U.S. government, U.S. history, philosophy, economics, communication, accounting, statistics, corporate finance, constitutional law, jurisprudence, logic, political theory, and at least one course in English composition beyond the first year level.

Students should contact the pre-law advisor for more detailed assistance on the manner in which their particular needs and interests may best be shaped into a suitable pre-law program.

The Pre-Law Association, a student-sponsored organization, is available for the purpose of encouraging communication and interaction among pre-law students on campus.

PRE-MEDICINE
College of Science, Engineering & Technology
Advisory Team: M. Bentley, Ph.D., G. Goellner, Ph.D., Marilyn Hart, Ph.D., R. Cohen, Ph.D.; D. Sharlin, Ph.D.; Toma, Ph.D. (for biology majors)
M. Pomije, Ph.D. (for chemistry and biochemistry majors)

Specific course requirements for admission to medical school vary somewhat among the different medical schools in the United States. To be eligible for admission at a particular medical school, the student must fulfill the requirements of that school. Students are encouraged to keep themselves informed of requirements for specific schools by consulting appropriate websites. A typical set of requirements are:

General Biology - (8 credits minimum)
BIOL 105 and BIOL 106

Students are encouraged to take additional electives from the following list to enhance their knowledge in basic biology: BIOL 211, BIOL 220, BIOL 270, BIOL 316, BIOL 320, BIOL 330, BIOL 435, BIOL 474

Chemistry with laboratory (general, inorganic and organic chemistry, 14 credits minimum)
General chemistry: CHEM 201, CHEM 202
Organic chemistry: CHEM 322 and CHEM 323 OR CHEM 322 and CHEM 324
Biochemistry: CHEM 360 OR CHEM 460
Students are encouraged to take CHEM 305 as an elective.

Physics with laboratory (8 credits minimum)
PHYS 211 and PHYS 212 OR
PHYS 221 and PHYS 222

Mathematics (introductory course in calculus and upper level statistics)
MATH 121 and HLTH 475

English or literature (one year)
ENG 101, and an additional 4 credits of writing intensive coursework in English. Students are encouraged to take ENG 271W as an elective.

Social and Behavior Sciences and Humanities - (18 credits minimum)
Students are encouraged to include PSYC 101, SOC 101 and PHIL 222W among these electives.

The completion of a baccalaureate degree is required for admittance to a medical school in most cases. Medical schools look most favorably upon the academically well-rounded student who has a strong scholastic record and unique life experiences that engender a commitment to a career in medicine. Students should pursue majors in subjects of their own choosing, as medical schools accept applicants from all academic majors, provided admission prerequisites are met. Majoring in one of the sciences—biology, biochemistry, chemistry, physics, etc.,—has the advantage of incorporating many or all of the courses listed above. Furthermore, the technical language of medical science is derived primarily from the disciplines of biology, chemistry, physics, mathematics, and psychology. Students who plan to enter medical school must take the Medical College Admission Test (MCAT). Typically, students begin the application process to medical school during the summer following their junior year. For their application to be complete, they must report their MCAT scores. MCATs are offered on various dates throughout the year. Contact the website of the American Association of Medical Colleges for specifics. If you have questions, please contact your pre-medicine advisor.

PRE-MORTUARY SCIENCE
College of Science, Engineering & Technology
Advisor: Marie Slotemaker

Required for Program
ACCT 200 Financial Accounting (3)
BIOL 220 Human Anatomy (4)
ENG 101 Composition (4)
BIOL 100 Our Natural World (4) OR
BIOL 105 General Biology I (4)

CHEM 100 Chemistry in Society (4) OR
CHEM 111 Chemistry of Life Process Part II (Organic & Biochemistry) (5) OR
CHEM 201 General Chemistry I (5)
STAT 154 Elementary Statistics (3) OR
PSYC 201 Statistics for Psychology (4)
SOC 101 Introduction to Sociology (3) OR
SOC 101W Introduction to Sociology (3)
CMST 100 Fundamentals of Communication (3) OR
CMST 101W Interpersonal Communication (4)

Recommended for Program
HLTH 101 Health & the Environment (3)
HLTH 321 Medical Terminology (3)

Additional electives to meet the 60 credit transfer requirement.

This program has been designed to meet the transfer requirements of the University of Minnesota’s Mortuary Science Program. Completion of the MN Transfer Curriculum or the Associate of Arts Degree is recommended before students enroll in the Mortuary Science B.S. program. The transfer program requires a total of 60 semester credits completed while maintaining a minimum GPA of 2.5 on a 4.0 scale. The courses listed above are specified by the University of Minnesota; additional courses should be selected with the help of an advisor.
The American Board of Funeral Service Education (ABFSE) accredits Mortuary Science Programs throughout the United States. Accredited programs are found on their Website: www.abfse.org. Students interested in Mortuary Science are strongly encouraged to consult the Website to locate programs in their geographic area of interest and then to consult with an advisor at that institution in their first year.

**PRE-OCCUPATIONAL THERAPY**  
**Advisor:** Mary Visser, PhD  
mary.visser@mnsu.edu  
Phone: 507-389-2672

Student Relations Coordinator: Shirley Murray  
shirley.murray@mnsu.edu  
Phone: 507-389-5194

The Pre-Occupational Therapy curriculum is a natural and social science–oriented curriculum which meets the standard requirements for admission to most occupational therapy programs. The majority of schools require a Bachelor's degree prior to application for admission, although some still accept students following two or three years of college preparation. It is important that students check requirements for their professional school of choice as some require classes in addition to those contained in this concentration. Most programs also require that the student take the Graduate Record Examination and score at a certain level.

**Pre-Occupational Therapy Concentration Courses at Minnesota State Mankato**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 220</td>
<td>Human Anatomy (4)</td>
<td></td>
</tr>
<tr>
<td>BIOL 330</td>
<td>Principles of Human Physiology (4)</td>
<td></td>
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<tr>
<td>STAT 154</td>
<td>Elementary Statistics (3)</td>
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<tr>
<td>CHEM 106</td>
<td>Chemistry of Life Process Part I (General) (3) OR</td>
<td></td>
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<tr>
<td>CHEM 111</td>
<td>Chemistry of Life Process Part II (Organic &amp; Biochemistry) (5)</td>
<td></td>
</tr>
<tr>
<td>PSYC 101</td>
<td>Introduction to Psychological Science (4)</td>
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<tr>
<td>PSYC 433</td>
<td>Child Psychology (4) AND</td>
<td></td>
</tr>
<tr>
<td>PSYC 436</td>
<td>Adolescent Psychology (4) OR</td>
<td></td>
</tr>
<tr>
<td>KSP 235</td>
<td>Human Development (3)</td>
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<tr>
<td>PSYC 455</td>
<td>Abnormal Psychology (4)</td>
<td></td>
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<tr>
<td>SOC 101</td>
<td>Introduction to Sociology (3)</td>
<td></td>
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<tr>
<td>HLTH 321</td>
<td>Medical Terminology (3)</td>
<td></td>
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<tr>
<td>HP 265</td>
<td>Orientation to Occupational and Physical Therapy (2)</td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL:** 32-39 credits

AOTA Website for Accredited OT Programs: http://www.aota.org/Educate/Schools/EntryLevelOT/38119.aspx

*Be sure to check the specific pre-requisite courses of programs you plan to apply to and tailor the above list to meet those requirements.

**MAJORS TO CONSIDER WITH OCCUPATIONAL THERAPY CONCENTRATION:**

- Exercise Science
- Health Science: Community Health
- Psychology
- Child Development and Family Studies
- Biology

*Graduate programs generally do not specify what undergraduate major must be completed. They are concerned about your performance within the major (including GPA) and that you have successfully completed all pre-requisite coursework.

**PRE-OPTOMETRY**  
**College of Science, Engineering & Technology**  
**Advisor:** Jim Rife, Ph.D.

The following courses satisfy requirements for admission to most colleges and schools of optometry. By the end of their first year at Minnesota State Mankato however, students should check the specific requirements of the college or school of optometry they plan to attend to ascertain exactly what is required for admission. Completion of a bachelor’s degree may be needed to be admitted to optometry schools and colleges.

- BIOL 220 Human Anatomy (4)
- BIOL 270 Microbiology (4)
- BIOL 330 Principles of Human Physiology (4)
- CHEM 201 General Chemistry I (5)
- CHEM 202 General Chemistry II (5)
- CHEM 322 Organic Chemistry I (4)
- CHEM 323 Supplemental Organic Functional Group Chemistry (1)
- CHEM 360 Principles of Biochemistry (4)
- ENG 101 Composition (4)
- ENG 271W Technical Communication (4)
- MATH 112 College Algebra (4) AND
- MATH 113 Trigonometry (3) OR
- MATH 115 Precalculus Mathematics (4)
- MATH 121 Calculus I (4)
- PHYS 211 Principles of Physics I (4)
- PHYS 212 Principles of Physics II (4)
- PSYC 101 Introduction to Psychological Science (4)
- STAT 154 Elementary Statistics (3)

**PRE-OSTEOPATHIC MEDICINE AND SURGERY**  
**College of Science, Engineering & Technology**  
**Advisor:** Mike Lusch, Ph.D.

The following courses satisfy requirements for admission to most colleges and schools of osteopathic medicine and surgery. Students interested in osteopathic medicine will find that majoring in Biomedical Sciences (BS), or Biochemistry (BA or BS) will provide them with appropriate undergraduate training. The Medical College Admissions Test (MCAT) is required for all applicants to colleges of osteopathic medicine and surgery. Since admissions requirements vary, students should consult the advisor.

- BIOL 105 General Biology I (4)
- BIOL 106 General Biology II (4)
- CHEM 201 General Chemistry I (5)
- CHEM 202 General Chemistry II (5)
- CHEM 322 Organic Chemistry I (4)
- CHEM 324 Organic Chemistry II (3)
- CHEM 325 Organic Chemistry II Lab (1)
- CHEM 360 Principles of Biochemistry (4) OR
- CHEM 460 Biochemistry II (3)
- PHYS 211 Principles of Physics I (4)
- PHYS 212 Principles of Physics II (4)

**REQUIRED ELECTIVES** (40-43 credits)

Electives to yield a total of 90 semester credits are required.

Colleges of osteopathic medicine and surgery require a minimum of 90 semester hours for admission. Students admitted to a college of osteopathic medicine and surgery have completed undergraduate degrees. Students interested in osteopathic medicine will find that majoring in Biomedical Sciences (BS), or Biochemistry (BA or BS) will provide them with appropriate undergraduate training. The Medical College Admissions Test (MCAT) is required for all applicants to colleges of osteopathic medicine and surgery. Since admissions requirements vary, students should consult the advisor.
The majority of students admitted to a college of pharmacy have completed an undergraduate degree. Students interested in pharmacy often major in Biomedical Sciences (BS), Biochemistry (BA or BS), or Chemistry (BA or BS) because these majors include many of the same courses that are required prerequisites to pharmacy programs. The pre-pharmacy curriculum is designed to meet the prerequisites for admission to many pre-pharmacy schools, however the curriculum is not all inclusive as prerequisites vary between colleges of pharmacy. Therefore, requirements for particular pharmacy schools still need to be taken into consideration before substitutions for these courses are made. The Pharmacy College Admission Test (PCAT) is required for all applicants to colleges of pharmacy.

Recommended Support Courses (4-7 credits)*

**MATH 112 College Algebra (4) AND**

**MATH 113 Trigonometry (3) OR**

**MATH 115 Precalculus Mathematics (4)**

(Must meet PHYS 211 math requirement (4-8)

**STAT 154 Elementary Statistics (3)**

**CHEM 201 General Chemistry I (5)**

**CHEM 202 General Chemistry II (5)**

**PSYC 101 Introduction to Psychological Science (4)**

**PSYC 433 Child Psychology AND**

**PSYC 436 Adolescent Psychology OR**

**KSP 235 Human Development (3)**

**PSYC 455 Abnormal Psychology (4)**

**SOC 101 Introduction to Sociology (3)**

(Recommendation only; see graduate program requirements)

**HLTH 321 Medical Terminology (3)**

(Recommendation only; see graduate program requirements)

**HP 265 Orientation to Occupational and Physical Therapy (2)**

TOTAL: 53-68 credits

AOTA Website for Accredited Physical Therapy Programs: http://www.apta.org/ProspectiveStudents/

*Be sure to check the specific pre-requisite courses of programs you plan to apply to and tailor the above list to meet those requirements.

Majors to Consider with Physical Therapy Concentration:

Exercise Science

Biology

Health Science: Community Health

*Graduate programs generally do not specify what undergraduate major must be completed. They are concerned about your performance within the major (including GPA) and that you have successfully completed all pre-requisite coursework.

**PRE-PHYSICAL THERAPY**

*Advising Team: T. Salerno, Ph.D. (for biochemistry majors) M. Hadley, Ph.D., D. Quirk Dorr, Ph.D.; D. Swart, Ph.D.; T. Vorlincek, Ph.D. (for chemistry majors)

The Pre–Physical Therapy curriculum is primarily a science–oriented curriculum which meets the standard requirements for admission to most physical therapy programs. The majority of schools require a Bachelor's degree prior to application for admission, although some still accept students following two or three years of college preparation. It is important that students check requirements for their professional school of choice as some require classes in addition to those contained in this concentration. Most programs also require that the student take the Graduate Record Examination and score at a certain level.

**PRE-PHARMACY**

*Advising Team: T. Salerno, Ph.D. (for biochemistry majors) M. Hadley, Ph.D., D. Quirk Dorr, Ph.D.; D. Swart, Ph.D.; T. Vorlincek, Ph.D. (for chemistry majors)

Please contact a pre-pharmacy advisor.

Sixty to 64 credits of coursework including the above are typically required by pharmacy programs. Substitutions for both science and non-science courses should be chosen after studying the requirements of particular pharmacy schools. Please contact a pre-pharmacy advisor.

**PRE-PODOIATRIC MEDICINE AND SURGERY**

*Advisor: Jim Rife, Ph.D.

The minimum requirements for admission to a college of podiatric medicine and surgery are the same as for osteopathic medicine and surgery. A minimum of 90 semester hours are required for admission; however, most students admitted to a college of podiatric medicine and surgery have completed undergraduate degrees. Students interested in podiatric medicine will find that majoring in Biomedical Sciences (BS), or Biochemistry (BA or BS) will provide them with appropriate undergraduate training. The Medical College Admissions Test is required for all applicants to colleges of podiatric medicine and surgery. Students in this program should regularly consult with the advisor.

Required General Education (78 credits)

**ENG 101 Composition (4)**

**ENG 201W Intermediate Writing (4)**

**PSYC 101 Introduction to Psychological Science (4)**

**SOC 101 Introduction to Sociology (3)**

**Recommended Support Courses (4-7 credits)**

**MATH 112 College Algebra (4) AND**

**MATH 113 Trigonometry (3) OR**

**MATH 115 Precalculus Mathematics (4)**

**MATH 112 College Algebra (4)**

**MATH 113 Trigonometry (3)**

**MATH 115 Precalculus Mathematics (4)**
Required for Major (35 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>BIOL 105</td>
<td>General Biology I (4)</td>
</tr>
<tr>
<td>BIOL 106</td>
<td>General Biology II (4)</td>
</tr>
<tr>
<td>CHEM 201</td>
<td>General Chemistry I (5)</td>
</tr>
<tr>
<td>CHEM 202</td>
<td>General Chemistry II (5)</td>
</tr>
<tr>
<td>CHEM 322</td>
<td>Organic Chemistry I (4)</td>
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<tr>
<td>CHEM 324</td>
<td>Organic Chemistry II (3)</td>
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<tr>
<td>CHEM 325</td>
<td>Organic Chemistry II Lab (1)</td>
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<tr>
<td>CHEM 360</td>
<td>Principles of Biochemistry (4) OR</td>
</tr>
<tr>
<td>CHEM 460</td>
<td>Biochemistry II (3)</td>
</tr>
<tr>
<td>PHYS 211</td>
<td>Principles of Physics I (4)</td>
</tr>
<tr>
<td>PHYS 212</td>
<td>Principles of Physics II (4)</td>
</tr>
</tbody>
</table>

Required Electives (40-43 credits)

Electives to yield a total of 90 semester credits are required.

* There are no requirements for MATH in this program; however, the student needs prerequisites in math to take courses in chemistry and physics.

PRE-VETERINARY MEDICINE

College of Science, Engineering & Technology
Advisor: P. Knoblich D.V.M., Ph.D.

Specific course requirements for admission to veterinary schools vary somewhat. The following requirements are designed for application to the University of Minnesota Veterinary School. Students should use these requirements as a general guide and check specific requirements for other Veterinary Schools.

Required for Major (Core, 49-53 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>ENG 101</td>
<td>Composition (4)</td>
</tr>
<tr>
<td>BIOL 105</td>
<td>General Biology I (4)</td>
</tr>
<tr>
<td>BIOL 106</td>
<td>General Biology II (4)</td>
</tr>
<tr>
<td>BIOL 211</td>
<td>Genetics (4)</td>
</tr>
<tr>
<td>BIOL 270</td>
<td>Microbiology (4)</td>
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<tr>
<td>CHEM 201</td>
<td>General Chemistry I (5)</td>
</tr>
<tr>
<td>CHEM 202</td>
<td>General Chemistry II (5)</td>
</tr>
<tr>
<td>CHEM 322</td>
<td>Organic Chemistry I (4)</td>
</tr>
<tr>
<td>CHEM 323</td>
<td>Supplemental Organic Functional Group Chemistry (1)</td>
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<tr>
<td>CHEM 360</td>
<td>Principles of Biochemistry (4) OR</td>
</tr>
<tr>
<td>PHYS 211</td>
<td>Principles of Physics I (4)</td>
</tr>
<tr>
<td>PHYS 212</td>
<td>Principles of Physics II (4)</td>
</tr>
</tbody>
</table>

(choose one of the following options)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>MATH 112</td>
<td>College Algebra (4) AND</td>
</tr>
<tr>
<td>MATH 113</td>
<td>Trigonometry (3)* OR</td>
</tr>
<tr>
<td>MATH 115</td>
<td>Precalculus Mathematics (4) OR</td>
</tr>
<tr>
<td>MATH 121</td>
<td>Calculus I (4)</td>
</tr>
</tbody>
</table>

* Although the University of Minnesota specifically requires only MATH 112, Minnesota State Mankato PHYS 111 requires either both MATH 112 and MATH 113, or MATH 115 or higher as prerequisites.

Required Electives (12-16 credits)

2 History and Social Sciences (6-8 credits)
2 Arts and Humanities (6-8 credits)
Organic chemistry: CHEM 322, plus CHEM 323

Recommended Electives

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 220</td>
<td>Human Anatomy (4) AND</td>
</tr>
<tr>
<td>BIOL 330</td>
<td>Principles of Human Physiology (4) OR</td>
</tr>
<tr>
<td>BIOL 431</td>
<td>Comparative Animal Physiology (3)</td>
</tr>
</tbody>
</table>

Graduate Record Exam (GRE) must be taken.

Students are strongly encouraged to declare a major and work toward a Bachelor's degree while completing the pre-veterinary coursework. Because of the extensive overlap of required courses with major's courses, student commonly major in one of the biology or chemistry options.
ACADEMIC COLLEGES

COLLEGE OF ALLIED HEALTH AND NURSING
Dr. Kristine Retherford, Dean
124 Myers Field House
Phone: 507-389-6315
Fax: 507-389-6447

Dental Hygiene, Family Consumer Science, Health Science
Human Performance, Recreation, Parks and Leisure Services
Speech, Hearing and Rehabilitation Services, School of Nursing

COLLEGE OF ARTS AND HUMANITIES
Dr. Kimberly Contag, Interim Dean
226 Armstrong Hall
Phone: 507-389-1712
Fax: 507-389-5887
www.mnsu.edu/carts

Art, English, Communication Studies, Film & Media Studies
Humanities, Interdisciplinary Studies, Mass Media, Music,
Philosophy, Scandinavian Studies, Theatre and Dance
World Languages & Cultures

COLLEGE OF BUSINESS
Dr. Brenda Flannery, Dean
120 Morris Hall
Phone: 507-389-5420
Fax: 507-389-5497

Accounting and Business Law, Finance, Management
Marketing and International Business

COLLEGE OF EDUCATION
Dr. Jean Haar, Dean
118 Armstrong Hall
Phone: 507-389-5445
Fax: 507-389-2566

Aviation, Counseling and Student Personnel,
Educational Leadership, Elementary Education
K-12 and Secondary Programs
Military Science and Leadership (Army ROTC)
Special Education, The Children’s House

COLLEGE OF LANGUAGE, LITERATURE AND ARTS

COLLEGE OF SCIENCE, ENGINEERING AND TECHNOLOGY
Dr. Brian Martensen, Dean
131 Trafton Science Center N
Phone: 507-389-5998
Fax: 507-389-1095

Automotive and Manufacturing Engineering Technology
Biological Sciences, Chemistry and Geology
Computer Information Science, Construction Management
Electrical and Computer Engineering and Technology
Integrated Engineering, Mathematics and Statistics
Mechanical and Civil Engineering
Physics and Astronomy

COLLEGE OF SOCIAL AND BEHAVIORAL SCIENCES
Dr. Kimberly Greer, Dean
111 Armstrong Hall
Phone: 507-389-6307
Fax: 507-389-5569
Advising “U”
Phone: 507-389-6306

Aging Studies, American Indigenous Studies, Anthropology
Applied Organizational Studies, Corrections, Earth Science
Economics, Ethnic Studies, Gender and Women’s Studies
Geography, History, International Relations, Law Enforcement
Nonprofit Leadership, Political Science, Psychology
Social Studies, Social Work, Sociology
Urban and Regional Studies

COLLEGE OF GRADUATE STUDIES AND RESEARCH
115 Alumni Foundation Center
Phone: 507-389-2321
Fax: 507-389-5974
Website: http://grad.mnsu.edu

Dr. Barry Ries, Associate Vice President of Research
and Dean of Graduate Studies
ADVISNG
GENERAL EDUCATION CURRICULUM GUIDELINES
DIVERSE CULTURES
WRITING INTENSIVE

GENERAL EDUCATION CURRICULUM GUIDELINES
Undergraduate students are required to complete 44 credits of General Education courses in 13 Goal Areas for graduation.

Procedures and Applications
Courses identified as General Education courses must meet the learning outcomes (competencies) for at least one of the Goal Areas. Departments submit course proposals through the Curriculum Design System (CDS) to request that courses be included in the General Education Curriculum. All proposals requesting General Education designation will be reviewed in a manner consistent with all other curricular proposals considered by the university.

Course proposals must clearly articulate how the course content achieves a majority of the learning outcomes for each of the General Education Goal Areas being requested. With the exception of Writing Intensive Courses, no consideration will be given to proposals that limit participation to specific sections of a course. Only courses, not specific sections of courses, are eligible for designation as General Education Courses.

Courses without specific content (e.g., independent study, individual study, directed readings, topics, internships, practicums, and field experience courses) will generally not be considered General Education courses. Exceptions may be made for specific cases if potential for achievement of the General Education outcomes for a particular goal area(s) can be clearly demonstrated prior to registration for the course in question.

All General Education courses will undergo systematic assessment as established by the university’s curricular committees. All departments and programs with General Education courses are expected to fully participate in the General Education assessment process.

ACADEMIC ADVISING AND PROGRAM PLANNING
Academic planning should begin early in your first year at Minnesota State Mankato, and your academic advisor will be the individual to help you assess your individual needs and plan an academic program based on your interests and career goals. As you progress through your program, your academic advisor, in conjunction with other advising staff, can assist you in a variety of ways: selecting courses each semester; changing or choosing a major; satisfying general education requirements; exploring career interests and opportunities; identifying campus resources to assist you; referring you to opportunities for scholarships, internships, and undergraduate research; and assisting you with any academic difficulties you may encounter.

As a new student at Minnesota State Mankato you are assigned an academic advisor based on your major choice during orientation. If you are unsure about your major when you first enroll, you would be assigned to one of the academic advisors in New Student & Family Programs who work especially with students who have not decided on a major. We encourage you to work closely with an academic advisor throughout your Minnesota State Mankato career.

ADVISNG RESOURCES
Major Advising. Once you have selected a major or general area of study you wish to pursue, your advising services will be provided by your major College. Each Minnesota State Mankato College has a Student Relations Coordinator (SRC) who serves as a primary resource and advising contact for those interested in any of the College majors or departments. The Student Relations Coordinators provide general academic and program assistance to prospective, current, and returning Minnesota State Mankato students. Some Colleges also offer “Advising Centers,” which provide additional advising services and staff.

COLLEGE ADVISING RESOURCES

ALLIED HEALTH
Shirley Murray, SRC, 124 Myers Field House, 389-5194

ARTS & HUMANITIES
Gina Matts-Zurbey, SRC, 226B Armstrong Hall, 389-1712

BUSINESS
Linda Meidell, SRC, College Advising Center, 151 Morris Hall, 389-2963

EDUCATION
Myronique Baxter, SRC, College Advising Center, 117 Armstrong Hall, 389-1215

NURSING
Kasi Johnson, Pre-Nursing Advisor, 319 Wissink Hall, 389-6810

SCIENCE, ENGINEERING AND TECHNOLOGY
Ken Adams, SRC, 131 Trafton Science Center N, 389-1521

SOCIAL AND BEHAVIORAL SCIENCES
Melissa Iverson, SRC, College of Social and Behavioral Sciences Advising “U”, 114 Armstrong Hall, 389-1351

COORDINATOR FOR NEW STUDENT AND FAMILY PROGRAMS
Sara Granberg-Rademacker, SRC, New Student & Family Programs, 103 Preska Residence Community, 389-5498

If you have not yet selected a major, or are considering a variety of options, you may choose to be an Interdisciplinary Studies major. If this is your situation, your initial academic advisor will be assigned through the New Student & Family Programs Office.

OTHER ADVISING RESOURCES
CAP Program Advisors, Institutional Diversity, 389-6125
Career Development Center, 209 Wigley Administration Center, 389-6061
Center for Academic Success, 132 Memorial Library, 389-1791
Counseling Center, 245 Centennial Student Union, 389-1455
Disability Services, 132 Memorial Library, 389-2825
Multicultural Affairs, 22 Centennial Student Union, 389-6300
Student Support Services, 355 Wiecking Center, 389-2797

DECLARING VS. ADMISSION TO MAJOR
Students can declare a major at any point and ask to be assigned to an advisor in their major. Declaration is the simple process of having the student records system updated to indicate what major a student is interested in pursuing and assigning an advisor based upon that interest. Students interested in majors in:
• The colleges of Science Engineering, Technology, Business; and the School of Nursing should go to the Student Relations Coordinator or advising center for that college/program
• The colleges of Allied Health, Arts and Humanities & Social Behavioral Sciences should be referred to individual departments

Admission to Major. Involves gaining permission to take 300-400 level course work and pursue graduation from a major. Students will be admitted to a major based on requirements established by the major and monitored by a department. University minimum requirements for admission to a major are having earned 32 credits/hours and a “2.0” cumulative grade point average. Many departments have additional requirements which can be found in the Undergraduate Catalog in the department/major listing. Additional requirements may include, but are not limited to: completion of prerequisite courses; higher grade-point averages for admission to major and/or graduation from the program; testing; and other forms of evaluation or portfolios.

Required Advising. Many Minnesota State Mankato majors REQUIRE that a student meet with their assigned academic advisor before registering each semester. If your major requires advising, your advisor would need to provide you with a registration “access code” before you would be able to register for courses.
### Course Designator and Numbering System

Each course is identified by a 2-4 alpha character code called a course designator that indicates the program or department housing the course. The listing of course designators used at Minnesota State Mankato are below.

A course designator is followed by a 3-digit numeric code indicating course level. Undergraduate courses are numbered 001-499. 001-299 indicate lower division courses and 300-499 indicate upper division courses. To be eligible to graduate with a bachelor’s degree from Minnesota State Mankato a student must have completed at least 40 semester hours of upper division courses. Students must be admitted to their major first to be able to take 300-400 level classes.

#### Course Designators

<table>
<thead>
<tr>
<th>Designator</th>
<th>Program/Discipline</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT</td>
<td>Accounting</td>
</tr>
<tr>
<td>AIS</td>
<td>American Indian Studies</td>
</tr>
<tr>
<td>ANTH</td>
<td>Anthropology</td>
</tr>
<tr>
<td>AOS</td>
<td>Applied Organizational Studies</td>
</tr>
<tr>
<td>ART</td>
<td>Art</td>
</tr>
<tr>
<td>AET</td>
<td>Automotive Engineering Technology</td>
</tr>
<tr>
<td>AST</td>
<td>Astronomy</td>
</tr>
<tr>
<td>AVIA</td>
<td>Aviation</td>
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<tr>
<td>BIOL</td>
<td>Biology</td>
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<td>BIOL</td>
<td>Biology</td>
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<tr>
<td>BLAW</td>
<td>Business Law</td>
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<tr>
<td>BUS</td>
<td>College of Business</td>
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<tr>
<td>CAHN</td>
<td>College of Allied Health &amp; Nursing</td>
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<tr>
<td>CHEM</td>
<td>Chemistry</td>
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<tr>
<td>CIVE</td>
<td>Civil Engineering</td>
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<td>CDIS</td>
<td>Communication Disorders</td>
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<tr>
<td>CMST</td>
<td>Communication Studies</td>
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<td>CS</td>
<td>Computer Science</td>
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<td>CM</td>
<td>Construction Management</td>
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<tr>
<td>CORR</td>
<td>Corrections</td>
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<tr>
<td>CSP</td>
<td>Counseling and Student Personnel</td>
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<td>DAK</td>
<td>Dakota</td>
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<td>DANC</td>
<td>Dance</td>
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<td>DHYG</td>
<td>Dental Hygiene</td>
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<td>ECON</td>
<td>Economics</td>
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<td>ED</td>
<td>Education</td>
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<td>EE</td>
<td>Electrical Engineering</td>
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<td>EEC</td>
<td>Elementary Education</td>
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<td>Electronic Engineering Technology</td>
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<td>ENG</td>
<td>English</td>
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<tr>
<td>ESL</td>
<td>English As A Second Language</td>
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<td>ENGR</td>
<td>Integrated Engineering</td>
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<td>ENVR</td>
<td>Environmental Sciences</td>
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<td>ETHN</td>
<td>Ethnic Studies</td>
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<td>FCS</td>
<td>Family Consumer Science</td>
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<td>Film Studies</td>
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<td>FINA</td>
<td>Finance</td>
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<td>FYEX</td>
<td>First Year Experience</td>
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<td>FREN</td>
<td>French</td>
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<td>GWS</td>
<td>Gender and Women’s Studies</td>
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<td>Geography</td>
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<td>GEOL</td>
<td>Geology</td>
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<td>GER</td>
<td>German</td>
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<td>GERO</td>
<td>Aging Studies</td>
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<td>Health Science</td>
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<td>Honors</td>
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<td>HP</td>
<td>Human Performance</td>
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<td>HUM</td>
<td>Humanities</td>
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<td>IDST</td>
<td>Interdisciplinary Studies</td>
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<td>IT</td>
<td>Computer Information Technology</td>
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<tr>
<td>IBUS</td>
<td>International Business</td>
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<tr>
<td>KSP</td>
<td>Secondary 5-12 &amp; K-12 Professional Education</td>
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<td>LAWE</td>
<td>Law Enforcement</td>
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<tr>
<td>MGMT</td>
<td>Management</td>
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<tr>
<td>MET</td>
<td>Manufacturing Engineering Technology</td>
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<tr>
<td>MRKT</td>
<td>Marketing</td>
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<tr>
<td>MASS</td>
<td>Mass Media</td>
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<tr>
<td>MATH</td>
<td>Mathematics</td>
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<tr>
<td>ME</td>
<td>Mechanical Engineering</td>
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<tr>
<td>MEDT</td>
<td>Medical Technology</td>
</tr>
<tr>
<td>MSL</td>
<td>Military Science and Leadership</td>
</tr>
<tr>
<td>MUS</td>
<td>Music</td>
</tr>
<tr>
<td>MUSE</td>
<td>Museum Studies (See Anthropology)</td>
</tr>
<tr>
<td>NPL</td>
<td>Nonprofit Leadership</td>
</tr>
<tr>
<td>NURS</td>
<td>Nursing</td>
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<tr>
<td>PHIL</td>
<td>Philosophy</td>
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<tr>
<td>PHYS</td>
<td>Physics</td>
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<td>POL</td>
<td>Political Science</td>
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<td>PSYC</td>
<td>Psychology</td>
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<td>RPLS</td>
<td>Recreation, Parks &amp; Leisure Services</td>
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<tr>
<td>REHB</td>
<td>Rehabilitation Counseling</td>
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<tr>
<td>SCAN</td>
<td>Scandinavian Studies</td>
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<td>SOST</td>
<td>Social Studies</td>
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<td>SOWK</td>
<td>Social Work</td>
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<td>SOC</td>
<td>Sociology</td>
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<td>SPAN</td>
<td>Spanish</td>
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<td>SPED</td>
<td>Special Education (Academic and Behavioral Strategist)</td>
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<td>STAT</td>
<td>Statistics</td>
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<td>THEA</td>
<td>Theatre Arts</td>
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<tr>
<td>URBS</td>
<td>Urban &amp; Regional Studies</td>
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<tr>
<td>WLC</td>
<td>World Languages &amp; Cultures (formally Modern Languages)</td>
</tr>
</tbody>
</table>

General Education courses that also satisfy the Diverse Cultures Graduation Requirement as either a Purple or Gold course are identified in the Goal Areas by a * for Purple and a † for Gold. (Example = ENG211W*)
DARS

DARS is an acronym for Degree Audit Reporting System. It is a computer program that produces advising information illustrating a student's progress in fulfilling the graduation requirements of their chosen degree program for undergraduate students.

DARS accomplishes its task by using a student's degree program information (degree, major, minor, catalog year), on file in the student records system, to create a generic "template" of that degree program. DARS then feeds all of a student's courses through this template to fill in the blanks. When the process is complete a document (called an audit) is produced showing where the student's courses fit in, which requirements are completed, and which are left to be done. The audit can then be used to monitor a student's progress and give a detailed assessment of what University requirements are yet to be satisfied.

DARS is not a replacement for the advising process whereby students are in communication with their department and assigned advisor. DARS should also not be considered a replacement for the University catalog, although the DARS program is based very heavily upon that document. The DARS program is a tool to assist students and advisors. Though DARS produces an accurate report of a student's graduation progress, infrequently some items cannot be checked for or taken into account. For example, audits do display the results of nearly all departmental substitutions and waivers, but there are some situations that cannot be dealt with. Many of these items are handled via the advising process and are done manually within the graduation process.

Questions concerning DARS should be directed to DARS-Questions@mnstate.edu

Ordering an Audit

There are three ways that students can obtain audits:

- order their own via the web (same way you log on to register)
- request an audit at the Campus Hub
- request an audit at their department or advising center

COURSE OFFERINGS

This catalog lists course offerings for the academic year beginning with fall semester 2015. This listing is as accurate as possible when the catalog is compiled. Students are advised, however, that all information regarding course offerings is subject to change, and it is recommended that students check the course schedules prior to each term. The University reserves the right to withdraw or modify any course or to change instructors.

Contact Hour. One 50-minute period (minimum) of class group activity under supervision.

Course Numbering System. Courses are identified by a 2 to 4 alphabetic character code indicating program or department, followed by a 3-digit numeric code indicating course level.

Writing Intensive “W” Designator. In certain cases, the 3-digit number may be followed by the letter “W”, which indicates that the course satisfies the writing intensive graduation requirement, whereas the other course with the same designator (and no “W”) does not. Credit will not be given for two courses with the same designator, regardless of GE writing intensive satisfaction.

Course Level. Undergraduate courses are numbered 001-499. 001-299 indicate lower division courses and 300-499 indicate upper division courses. Graduate courses are numbered 500-999 and are listed in the Graduate Bulletin. To be eligible to graduate with a bachelor's degree from Minnesota State Mankato, a student must have completed at least 40 semester hours of upper division courses. Students must be admitted to their major first to be able to take 300-400 level classes.

Sections. Individual course sections differentiated in the course schedules, but are not indicated in this catalog.

Number of Credits. The number of credits is listed in parentheses after the course number. If the course is offered for variable credits, e.g., (1-4), the student will need to work with an advisor to determine the appropriate number of credits for which a certain course should be taken, and should register for the course accordingly. Permission is required for variable credit courses.

Prerequisites. Students can be dropped from a course for which they are not found to have meet the prerequisites. Some courses require prerequisites and/or co-requisite courses. These are listed at the end of the course descriptions in this catalog. In some cases, prerequisites are “enforced.” If so, you would be unable to register without first verifying that you have completed the required prerequisite course. It is the student’s responsibility to review prerequisite requirements, and register for the appropriate level course. Questions about prerequisite course requirements should be directed to your academic advisor, the College Advising Center, or the department offering the course.

General Education and Diverse Cultures Satisfaction. Courses approved as satisfying General Education requirements are symbolized after the course description. For example, a course satisfying Goal Area 4 will be denoted as GE-4. Similarly, courses approved as satisfying the Diverse Cultures Graduation Requirement will be denoted as Diverse Cultures-Purple and Diverse Cultures-Gold after the description. If a course satisfies both a General Education and a Purple course requirement, for example, in Goal Area 5, it will be denoted as Diverse Cultures-Purple and under this, GE-5. If a course satisfies both a General Education and a Gold course requirement in Goal Area 5, it will be denoted as Diverse Cultures-Gold, followed by GE-5.

GENERAL EDUCATION

GENERAL EDUCATION MINNESOTA TRANSFER CURRICULUM. Completion of the Minnesota Transfer Curriculum fulfills the General Education requirement for any Minnesota public institution. Students transferring with a completed Minnesota Transfer Curriculum will satisfy Minnesota State Mankato’s General Education requirement. Completion of goal areas within the Minnesota Transfer Curriculum will be accepted as completion of that same goal area at Minnesota State Mankato. Individual competencies will be evaluated and transferred on a course-by-course basis. Students transferring from Minnesota State Mankato to another Minnesota public institution of higher education will have fulfilled the Minnesota Transfer Curriculum if they have completed 40 credits of required courses in the following ten goal areas: Communication, Critical Thinking, Natural Science, Mathematical/ Logical Reasoning, History and the Social and Behavioral Sciences, Humanities and the Arts, Human Diversity, Global Perspective, Ethical and Civic Responsibility, and People and the Environment. Goal areas 11-13 are part of the General Education curriculum at Minnesota State Mankato but not goal areas in the Minnesota Transfer Curriculum.

Why General Education?

The General Education program integrates a broad foundation of knowledge and skills with the study of contemporary concerns. The goals and competencies within the curriculum are reflective of those capabilities essential for all college-educated adults facing the twenty-first century, including:

1. Skills needed for effective understanding and communication if ideas through reading, listening, critical and integrative thinking, writing, speaking, and technological literacy;
2. Exploration of various ways of knowing through study of the content, methods of inquiry and creative modes of a broad spectrum of disciplines;
3. Our common membership in the human community, coupled with awareness that we live in a diverse world;
4. The interrelatedness of human society and the natural environment and the ethical dimensions of political, social, and personal life; and

GENERAL EDUCATION GUIDELINES

1. A total of 44 credits must be completed to satisfy the General Education program at Minnesota State Mankato.
2. Students transferring with the Minnesota Transfer Curriculum completed will be considered to have completed the Minnesota State Mankato General Education requirements.
3. While included in General Education at Minnesota State Mankato, goal areas 11, 12, and 13 are not part of the Minnesota Transfer Curriculum.
4. A single course may be placed in more than one goal area. Each credit in any of these courses, however, may be counted only once in meeting the 44 credits requirement.
5. The Critical Thinking Goal Area 2 may be satisfied either by taking a course or by the satisfactory completion of the other General Education goal areas.
6. In each goal area where two courses are required (i.e., 3, 5, and 6), students are required to take courses from different disciplines.
7. To count as General Education credit, students may take no more than two courses or eight (8) credits, whichever is greater, from the same discipline. The only exception to this policy is for English Composition (ENG 101, CMST 100, CMST 102).
8. For Bachelor of Science degrees in Electrical, Civil, Computer, General or Mechanical Engineering, and the Nursing degree, general education requirements differ. See the program requirements for a detailed explanation of general education coursework for these degree programs.
9. The General Education requirements of the Associate of Arts degree are the same as for the Bachelor’s degree.
10. General Education courses that also satisfy the Diverse Cultures graduation requirement as either a Purple or Gold course are identified by a “P” for Purple and a “G” for Gold.
11. General Education courses that also satisfy the Writing Intensive graduation requirement are identified by a “W” for Writing Intensive.
12. Some general education courses may also be required courses for your major. Please consult your advisor for information about the general education courses you may need to take specifically for your major degree.

GOAL AREA 1: COMMUNICATION

Goal: To develop writers and speakers who use the English language effectively and who read, write, speak, and listen critically. At a base, all students should complete introductory communication requirements early in their college studies. Writing competency is an ongoing process to be reinforced throughout writing intensive courses and writing across the curriculum. Speaking and listening skills need reinforcement. There are multiple opportunities for interpersonal communication, public speaking and discussion.

Part A: English Composition

Requires one course, 3 credits or more, with a grade of at least “P” or “C” (2.0). A grade of “C-” does not satisfy this goal area.

Goal: The goal is to provide students with
• a rich understanding of how writing works
• guided opportunities to apply this understanding in specific writing situations
• experience analyzing, researching, and writing for academic writing situations
• opportunities to reflect on the development of their writing knowledge and skills

Students will be able to:
(a) draw upon strategies for idea generation, drafting, revision, design, and editing;
(b) analyze and produce texts guided by basic rhetorical concepts;
(c) practice critical reading skills, including the ability to identify genre conventions and evaluate the claims, evidence, and reasoning in a text;
(d) demonstrate effective research processes, including the ability to gather academic and non-academic sources and assess their quality and suitability for the writing situation;
(e) integrate sources in their writing to achieve specific aims, making appropriate use of summary, paraphrase, quotation, and citation conventions;
(f) explain their writing choices, using concrete examples to support their claims;
(g) employ syntax and usage appropriate to academic disciplines and the professional world.

Courses which satisfy this goal area are:

<table>
<thead>
<tr>
<th>Course #</th>
<th>Credits</th>
<th>Title/Goal Area(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101</td>
<td>4</td>
<td>Composition I A</td>
</tr>
<tr>
<td>ENG 104</td>
<td>4</td>
<td>Stretch Composition II A</td>
</tr>
</tbody>
</table>

Part B: Speech and Oral Reasoning

(Requires one course, 3 credits or more)

Goal: To develop skills necessary for reasoned communication. Courses in this goal area will require individual public speaking which is critiqued by the instructor. Speaking and reasoning competency is an ongoing process which needs to be reinforced throughout the curriculum.

Students will be able to:
(a) understand/demonstrate communication processes through invention, organization, drafting, revision, editing and presentation;
(b) participate effectively in groups with emphasis on listening, critical and reflective thinking, and responding;
(c) analyze, evaluate, and synthesize in a responsible manner material from diverse sources and points of view;
(d) select appropriate communication choices for specific audiences;
(e) construct logical and coherent arguments;
(f) use authority, point of view, and individual voice and style in communications;
(g) employ syntax, usage and analytical techniques appropriate to academic disciplines and the professional world.

Course(s) which satisfy this goal area include:

<table>
<thead>
<tr>
<th>Course #</th>
<th>Credits</th>
<th>Title/Goal Area(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDIS 201</td>
<td>3</td>
<td>Observation of Human Communication (1B)</td>
</tr>
<tr>
<td>CMST 100</td>
<td>3</td>
<td>Fund of Communication (1B)</td>
</tr>
<tr>
<td>CMST 102</td>
<td>3</td>
<td>Public Speaking (1B)</td>
</tr>
<tr>
<td>CMST 212</td>
<td>4</td>
<td>Prof Communication &amp; Interviewing (1B)</td>
</tr>
<tr>
<td>POL 234</td>
<td>3</td>
<td>Model United Nations (1B, 8)</td>
</tr>
</tbody>
</table>

GOAL AREA 2: CRITICAL THINKING

( Requires completion of the rest of the General Education Program or one course)

Goal: To develop critical thinking, communication, and problem solving skills. Courses in this goal area must focus on skill development and throughout the course will provide opportunities to exercise skills although the exercise of skills requires a subject matter, the emphasis in this goal area will be on skill development. The skills will not be ones that are specific to the practice of a particular discipline or area of inquiry but rather will be skills that are common to different disciplines and different areas of inquiry.

Students will be able to:
(a) gather and analyze information of various kinds, employing formal or informal tools to represent information in ways useful for solving problems;
(b) weigh evidence for and against hypotheses;
(c) recognize, construct, and evaluate arguments;
(d) apply appropriate critical and evaluative principles to texts, documents, or works--one's own or others'--in oral, visual, or written mediums.

Course(s) which satisfy this goal area include:

<table>
<thead>
<tr>
<th>Course #</th>
<th>Credits</th>
<th>Title/Goal Area(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AST 115</td>
<td>2</td>
<td>Life in the Universe 2, 3</td>
</tr>
<tr>
<td>CHEM 111-L</td>
<td>5</td>
<td>Chemistry of Life Processes 2, 3</td>
</tr>
<tr>
<td>CHEM 191</td>
<td>3</td>
<td>Chemistry for Engineers 2, 3</td>
</tr>
<tr>
<td>CHEM 201-L</td>
<td>5</td>
<td>General Chemistry I 2, 3</td>
</tr>
<tr>
<td>CMST 101W</td>
<td>3</td>
<td>Interpersonal Communication 2</td>
</tr>
<tr>
<td>CSP 110</td>
<td>3</td>
<td>Decision Making for Career and Life 2</td>
</tr>
<tr>
<td>ECON 103W¹</td>
<td>3</td>
<td>Econ Women's Iss &amp; Publ Pol 2, 5</td>
</tr>
<tr>
<td>ECON 207</td>
<td>4</td>
<td>Business Statistics 2, 4</td>
</tr>
<tr>
<td>ENG 201W</td>
<td>4</td>
<td>Intermediate Writing 2</td>
</tr>
<tr>
<td>ENG 271W</td>
<td>4</td>
<td>Technical Communication 2, 13</td>
</tr>
<tr>
<td>ENG 272W</td>
<td>4</td>
<td>Business Communication 2, 13</td>
</tr>
<tr>
<td>ENG 301W</td>
<td>4</td>
<td>Advanced Writing 2</td>
</tr>
<tr>
<td>GERO 200⁰</td>
<td>4</td>
<td>Family Dynamics of Aging 2, 7</td>
</tr>
<tr>
<td>GERO 200W⁰</td>
<td>4</td>
<td>Family Dynamics of Aging 2, 7</td>
</tr>
<tr>
<td>GWS 230P</td>
<td>4</td>
<td>Gender, Race &amp; Pop Culture 2, 6</td>
</tr>
<tr>
<td>HLTH 212</td>
<td>3</td>
<td>Consumer Health Issues 2</td>
</tr>
<tr>
<td>KSP 200⁰</td>
<td>3</td>
<td>Critical Issues in Public Ed Today 2, 9</td>
</tr>
<tr>
<td>MATH 290</td>
<td>4</td>
<td>Foundations of Mathematics 2</td>
</tr>
<tr>
<td>MUS 321W</td>
<td>3</td>
<td>Music Literature and History I 2</td>
</tr>
<tr>
<td>MUS 322W</td>
<td>3</td>
<td>Music Literature History II 2</td>
</tr>
<tr>
<td>PHIL 110</td>
<td>3</td>
<td>Logic and Critical Thinking 2, 4</td>
</tr>
<tr>
<td>PHIL 112</td>
<td>3</td>
<td>Logic of Scientific Method 2, 4</td>
</tr>
<tr>
<td>PHIL 311</td>
<td>3</td>
<td>Symbolic Logic 2, 4</td>
</tr>
<tr>
<td>PHYS 211-L</td>
<td>4</td>
<td>Principles of Physics I 2, 3</td>
</tr>
<tr>
<td>PHYS 221-L</td>
<td>5</td>
<td>General Physics I 2, 3</td>
</tr>
<tr>
<td>POL 103W</td>
<td>3</td>
<td>Thinking About Politics 2</td>
</tr>
<tr>
<td>PSYC 103W</td>
<td>3</td>
<td>Psychology Today 2</td>
</tr>
</tbody>
</table>
GOAL AREA 3: NATURAL SCIENCE
(Requires two courses from different disciplines, 6 credits or more. At least one course must have a laboratory)

Goal: To improve students' understanding of natural science principles and of the methods of scientific inquiry, i.e., the ways in which scientists investigate natural science phenomena. Students should be encouraged to study both the biological and physical sciences.

Students will be able to:
(a) develop understanding of scientific theories;
(b) formulate and test hypotheses in either laboratory, simulation, or field experiences;
(c) communicate his/her experimental findings and interpretations both orally and in writing;
(d) apply the natural science perspective to society issues.

Course(s) which satisfy this goal area include: (“L” indicates a laboratory course)

<table>
<thead>
<tr>
<th>Course #</th>
<th>Credits</th>
<th>Title/Goal Area(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 120</td>
<td>(3)</td>
<td>Forensic Science: An Anth Approach 3</td>
</tr>
<tr>
<td>ANTH 210-L</td>
<td>(4)</td>
<td>Intro to Archaeology 3, 10</td>
</tr>
<tr>
<td>ANTH 220-L</td>
<td>(4)</td>
<td>Human Origins 3</td>
</tr>
<tr>
<td>AST 101</td>
<td>(3)</td>
<td>Intro to Astronomy 3</td>
</tr>
<tr>
<td>AST 102</td>
<td>(3)</td>
<td>Intro to the Planets 3</td>
</tr>
<tr>
<td>AST 104-L</td>
<td>(2)</td>
<td>Intro to Experimental Astronomy 3</td>
</tr>
<tr>
<td>AST 115</td>
<td>(2)</td>
<td>Life in the Universe 2, 3</td>
</tr>
<tr>
<td>BIOL 100-L</td>
<td>(4)</td>
<td>Our Natural World 3</td>
</tr>
<tr>
<td>BIOL 102</td>
<td>(3)</td>
<td>Biology of Women 3</td>
</tr>
<tr>
<td>BIOL 103W-L</td>
<td>(3)</td>
<td>Intro to Biotechnology 3</td>
</tr>
<tr>
<td>BIOL 105-L</td>
<td>(4)</td>
<td>General Biology I 3</td>
</tr>
<tr>
<td>BIOL 105W-L</td>
<td>(4)</td>
<td>General Biology I 3</td>
</tr>
<tr>
<td>BIOL 270-L</td>
<td>(4)</td>
<td>Microbiology 3</td>
</tr>
<tr>
<td>CHEM 100-L</td>
<td>(4)</td>
<td>Chemistry in Society 3</td>
</tr>
<tr>
<td>CHEM 104</td>
<td>(3)</td>
<td>Intro to Chemistry 3</td>
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<tr>
<td>CHEM 106</td>
<td>(3)</td>
<td>Chemistry of Life Processes I 3</td>
</tr>
<tr>
<td>CHEM 111-L</td>
<td>(3)</td>
<td>Chemistry of Life Processes II 2, 3</td>
</tr>
<tr>
<td>CHEM 131</td>
<td>(3)</td>
<td>Forensic Science 3, 9</td>
</tr>
<tr>
<td>CHEM 134</td>
<td>(3)</td>
<td>Mind Altering Substances 3</td>
</tr>
<tr>
<td>CHEM 135</td>
<td>(3)</td>
<td>Science of Sport 3</td>
</tr>
<tr>
<td>CHEM 191</td>
<td>(3)</td>
<td>Chemistry for Engineers 2, 3</td>
</tr>
<tr>
<td>CHEM 201-L</td>
<td>(5)</td>
<td>General Chemistry I 2, 3</td>
</tr>
<tr>
<td>EET 112-L</td>
<td>(3)</td>
<td>Elementary Electronics 3</td>
</tr>
<tr>
<td>EET 118</td>
<td>(3)</td>
<td>Electricity...Usage &amp; Green Alternatives 3, 8</td>
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<tr>
<td>FCS 140</td>
<td>(3)</td>
<td>Intro to Nutrition 3</td>
</tr>
<tr>
<td>GEOG 101</td>
<td>(3)</td>
<td>Introductory Physical Geography 3, 10</td>
</tr>
<tr>
<td>GEOG 100-L</td>
<td>(3-4)</td>
<td>Our Geologic Environment 3, 10</td>
</tr>
<tr>
<td>GEOG 108</td>
<td>(3)</td>
<td>Oceans of the World 3, 10</td>
</tr>
<tr>
<td>GEOG 121-L</td>
<td>(4)</td>
<td>Physical Geography 3, 10</td>
</tr>
<tr>
<td>GEOL 122-L</td>
<td>(4)</td>
<td>Earth History 3</td>
</tr>
<tr>
<td>PHYS 100-L</td>
<td>(3)</td>
<td>Cultural Physics 3</td>
</tr>
<tr>
<td>PHYS 101-L</td>
<td>(3)</td>
<td>Introductory Physics 3</td>
</tr>
<tr>
<td>PHYS 102</td>
<td>(3)</td>
<td>Physics in the World Around Us 3</td>
</tr>
<tr>
<td>PHYS 105</td>
<td>(3)</td>
<td>Time, Atomic Clocks, and Relativity 3</td>
</tr>
<tr>
<td>PHYS 211-L</td>
<td>(4)</td>
<td>Principles of Physics 1, 2, 3</td>
</tr>
<tr>
<td>PHYS 221-L</td>
<td>(4)</td>
<td>General Physics I 2, 3</td>
</tr>
</tbody>
</table>

GOAL AREA 4: MATHEMATICAL/LOGICAL REASONING
Requires one course, 3 credits or more, with a grade of at least “P” or “C”, i.e. 2.0. A grade of “C-” does not satisfy this goal area.

Goal: To increase students' knowledge about mathematical and logical modes of thinking. This will enable students to appreciate the breadth of applications of mathematics, evaluate arguments, and detect fallacious reasoning. Students will learn to apply mathematics, logic, and/or statistics to help them make decisions in their lives and careers. Students will be able to:
(a) illustrate historical and contemporary applications of mathematical/logical systems;
(b) clearly express mathematical/logical ideas in writing;
(c) explain what constitutes a valid mathematical/logical argument (proof);
(d) apply higher-order problem-solving and/or modeling strategies.

Course(s) which satisfy this goal area include:

<table>
<thead>
<tr>
<th>Course #</th>
<th>Credits</th>
<th>Title/Goal Area(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 207</td>
<td>(4)</td>
<td>Business Statistics 2, 4</td>
</tr>
<tr>
<td>MATH 110</td>
<td>(3)</td>
<td>Perspectives in Mathematics 4</td>
</tr>
<tr>
<td>MATH 112</td>
<td>(4)</td>
<td>College Algebra 4</td>
</tr>
<tr>
<td>MATH 113</td>
<td>(3)</td>
<td>Trigonometry 4</td>
</tr>
<tr>
<td>MATH 115</td>
<td>(4)</td>
<td>Precalculus Mathematics 4</td>
</tr>
<tr>
<td>MATH 121</td>
<td>(4)</td>
<td>Calculus I 4</td>
</tr>
<tr>
<td>MATH 130</td>
<td>(4)</td>
<td>Finite Math and Intro Calculus 4</td>
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<td>MATH 180</td>
<td>(4)</td>
<td>Mathematics for Computer Science 4</td>
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<tr>
<td>MATH 181</td>
<td>(3)</td>
<td>Intuitive Calculus 4</td>
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<tr>
<td>MATH 201</td>
<td>(3)</td>
<td>Elements of Mathematics I 4</td>
</tr>
<tr>
<td>PHIL 110</td>
<td>(3)</td>
<td>Logic and Critical Thinking 2, 4</td>
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<td>PHIL 112</td>
<td>(3)</td>
<td>Logic of Scientific Method 2, 4</td>
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<td>PHIL 311</td>
<td>(3)</td>
<td>Symbolic Logic 2, 4</td>
</tr>
<tr>
<td>SOC 202</td>
<td>(3)</td>
<td>Introductory Social Statistics 4</td>
</tr>
<tr>
<td>STAT 154</td>
<td>(3)</td>
<td>Elementary Statistics 4</td>
</tr>
</tbody>
</table>

GOAL AREA 5: HISTORY AND THE SOCIAL AND BEHAVIORAL SCIENCES
(Requires two courses from different disciplines, 6 credits or more)

Goal: To increase students' knowledge of how historians and social and behavioral scientists discover, describe, and explain the behaviors and interactions among individuals, groups, institutions, events and ideas and to challenge students to examine the implications of this knowledge and its interconnection with action and living an informed life. Students will be able to:
(a) employ the methods and data that historians and social and behavioral scientists use to investigate the human condition;
(b) examine social institutions and processes across a range of historical periods and cultures;
(c) use and critique alternative explanatory systems or theories;
(d) develop and communicate alternative explanations or solutions for contemporary social issues.

Course(s) which satisfy this goal area include:

<table>
<thead>
<tr>
<th>Course #</th>
<th>Credits</th>
<th>Title/Goal Area(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIS 101P</td>
<td>(3)</td>
<td>Intro to American Indigenous Studies 5, 7</td>
</tr>
<tr>
<td>AIS 102P</td>
<td>(4)</td>
<td>American Indian Country to 1900 5, 7</td>
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<tr>
<td>AIS 103P</td>
<td>(4)</td>
<td>American Indian 1900-Present 5, 7</td>
</tr>
<tr>
<td>AIS 210P</td>
<td>(3)</td>
<td>Cultural Traditions 5, 7</td>
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<td>AIS 210WP</td>
<td>(3)</td>
<td>Oral Traditions 5, 7</td>
</tr>
<tr>
<td>AIS 220WP</td>
<td>(3)</td>
<td>Tribal Sovereignty 5, 7</td>
</tr>
<tr>
<td>AIS 230WP</td>
<td>(3)</td>
<td>American Indians of Minnesota 5, 7</td>
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<td>AIS 240P</td>
<td>(3)</td>
<td>American Indian Women 5, 7</td>
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<tr>
<td>AIS 240WP</td>
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<td>American Indian Women 5, 7</td>
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<tr>
<td>ANTH 101P</td>
<td>(4)</td>
<td>Intro to Anthropology 5, 8</td>
</tr>
<tr>
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GOAL AREA 6: HUMANITIES AND THE ARTS
(Requires two courses from different disciplines, 6 credits or more)
Goal: To expand students’ knowledge of the human condition and human cultures, especially in relation to behavior, ideas, and values expressed in works of human imagination and thought. Through study in disciplines such as literature, philosophy, and the fine arts, students will engage in critical analysis, form aesthetic judgments, and develop an appreciation of the arts and humanities as fundamental to the health and survival of any society. Students should have experiences in both the arts and humanities.

Students will be able to:
(a) demonstrate awareness of the scope and variety of works in the arts and humanities;
(b) understand those works as expressions of individual and human values within an historical and social context;
(c) respond critically to works in the arts and humanities;
(d) engage in the creative process or interpretive performance;
(e) articulate an informed personal reaction to works in the arts and humanities.

Course(s) which satisfy this goal area include:

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GOAL AREA 7: HUMAN DIVERSITY
(Requires one course, 3 credits or more)

Goal: To increase students’ understanding of individual and group differences, emphasizing the dynamics of race, gender, sexual orientation, age, class, and/or disabilities in the history and culture of diverse groups in the United States; the contributions of pluralism to United States society and culture; and issues—economic, political, social, cultural, artistic, humanistic, and education traditions—that surround such diversity. Students should be able to evaluate the United States’ historical and contemporary responses to group differences. Students will be able to:

(a) understand the development of and the changing meanings of group identities in the United States’ history and cultures;
(b) demonstrate an awareness of the individual and institutional dynamics of unequal power relations between groups in contemporary society;
(c) analyze and evaluate their own attitudes, behaviors, concepts, and beliefs regarding diversity, racism, and bigotry;
(d) describe and discuss the experience and contributions (political, social, economic, artistic, humanistic, etc.) of the many groups that shape American society and culture, in particular those groups which have suffered discrimination and exclusion;
(e) demonstrate communication skills necessary for living and working effectively in a society with great population diversity.

Course(s) which satisfy this goal area include:

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GOAL AREA 8: GLOBAL PERSPECTIVES
(Requires one course, 3 credits or more)

Goal: To increase students’ understanding of the growing interdependence of nations, traditions and peoples and develop their ability to apply a comparative perspective to cross-cultural social, economic, and political experiences. Students will be able to:

(a) describe, analyze, and evaluate political, economic, humanistic, artistic, social and cultural elements which influence relations of nations and peoples in their historical and contemporary dimensions;
(b) demonstrate knowledge of cultural, social, religious and linguistic differences;
(c) analyze specific international problems illustrating cultural, economic, artistic, humanistic, social, and political differences which affect their solution;
(d) understand the role of a world citizen and the responsibility world citizens share for their common global future.

Course(s) which satisfy this goal area include:

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DANC 120W (3) Intro to Dance 6, 8
DANC 225 (3) World Dance in Cultural Persp 8, 11
CON 314W (3) Current Economic Issues 5, 8
EET 118 (3) Electricity…Usage & Green Alternatives 3, 8
EET 125W (3) Perspective on Technology 6, 8
ENG 125V (4) International Children’s Literature 6, 8
ENG 146 (4) Introduction to Shakespeare 6, 8
ENG 212W (4) World Literature 6, 8
ENV 101 (4) Persp in Environmental Science 8, 10
FILM 334W* (4) International Cinema 6, 8
FREN 101 (5) Elementary French I 8
FREN 102 (5) Elementary French II 8
FREN 201 (4) Intermediate French I 8
FREN 202 (4) Intermediate French II 8
GEOG 100P (3) Elements of Geography 8, 10
GEOG 103P (3) Introductory Cultural Geography 5, 8
GER 101 (4) Elementary German I 8
GER 102 (4) Elementary German II 8
GER 150W* (4) The German-Speaking Countries… 6, 8
GER 201 (4) Intermediate German I 8
GER 202 (4) Intermediate German II 8
GWS 220P (4) Global Persp on Women & Change 8, 9
GWS 220W* (4) Global Persp on Women & Change 8, 9
HIST 170 (4) Ancient World Civilization to 1500 5, 8
HIST 170W (4) Ancient World Civiliz to 1500 5, 8
HIST 171P (4) World Civilization, 1500-Present 5, 8
HIST 171W (4) World Civiliz 1500-Present 5, 8
HIST 181 (4) European History: 1648 to the Present 5, 8
HIST 181W (4) European History: 1648-Present 5, 8
HIST 260P (4) Intro to East Asian Civilization 5, 8
HIST 260W* (4) Intro to East Asian Civilization 5, 8
HUM 101W (4) Intro to the Humanities 6, 8
HUM 155 (4) Global Humanities I 6, 8
HUM 156 (4) Global Humanities II 6, 8
HUM 282W* (4) Global Persp. & Hum Trad 6, 8
KSP 260 (3) Crtg Glob Awareness thr Study Abroad 7, 8
MUS 328 (3) Music of the World 6, 8
MUSE 200W (3) Introduction to Museum Studies 5, 8
PHIL 205S (3) Culture, Identity, & Diversity 6, 8
PHIL 358W* (3) Eastern Philosophy 6, 8
POL 106 (3) Politics in the World Community 8
POL 234 (3) Model United Nations 1B, 8
SCAN 101 (4) Elementary Norwegian I 8
SCAN 102 (4) Elementary Norwegian II 8
SCAN 111 (4) Elementary Swedish I 8
SCAN 112 (4) Elementary Swedish II 8
SCAN 150W* (4) The Nordic Countries… 6, 8
SCAN 251W* (4) Scandinavian Culture: The Sami 6, 8
SOC 101 (3) Introduction to Sociology 5, 8
SOC 101W* (3) Introduction to Sociology 5, 8
SOWK 255 (3) Global Responses to Human Need 5, 8
SPAN 101 (4) Elementary Spanish I 8
SPAN 102 (4) Elementary Spanish II 8
SPAN 201 (4) Intermediate Spanish I 8
SPAN 202 (4) Intermediate Spanish II 8
SPAN 210W (4) Composition and Conversation 8
URBS 100 (3) Intro to the City 5, 8

**GOAL AREA 9: ETHICAL AND CIVIC RESPONSIBILITY**
(Requires one course, 3 credits or more)

**Goal:** To develop students’ capacity to identify, discuss and reflect upon the ethical dimensions of political, social, and personal life and to understand the ways in which they can exercise responsible and productive citizenship. While there are diverse views of social justice or the common good in a pluralistic society, students should learn that responsible citizenship requires them to develop skills to understand their own and others positions, be part of the free exchange of ideas, and function as public minded citizens.

Students will be able to:

(a) examine, articulate, and apply their own ethical views;
(b) understand and apply core concepts (e.g. politics, rights and obligations, justice, liberty) to specific issues;
(c) analyze and reflect on the ethical dimensions of legal, social, and scientific issues;
(d) recognize the diversity of political motivations and interests of others;
(e) identify ways to exercise the rights and responsibilities of citizenship.

Course(s) which satisfy this goal area include:

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GOAL AREA 10: PEOPLE AND THE ENVIRONMENT
(Requires one course, 3 credits or more)
Goal: To increase students’ understanding of today’s complex environmental challenges. Students will examine the interrelatedness of human society and the natural environment. Knowledge of both bio-physical principles and psycho-social cultural systems is the foundation for integrative and critical thinking about environmental issues.

Students will be able to:
(a) explain the basic structure and function of various natural ecosystems and of human adaptive strategies within those systems;
(b) discern and analyze patterns and interrelationships of the bio-physical and psycho-social cultural systems;
(c) critically discern and analyze individual, social, and ecological dimensions of health;
(d) describe the basic institutional arrangements (social, legal, political, economic, health, ethical, religious) that are evolving to deal with environmental and natural resource challenges;
(e) evaluate critically environmental and natural resource issues in light of understandings about interrelationships, ecosystems, and institutions;
(f) propose and assess alternative solutions to environmental problems;
(g) articulate and defend the actions they would take on various environmental issues.

Course(s) which satisfy this goal area include:

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NOTE: Goal areas 11-13 are part of the General Education curriculum at Minnesota State Mankato but not goal areas in the Minnesota Transfer Curriculum.

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GOAL AREA 11: PERFORMANCE AND PARTICIPATION
(Requires 2-3 credits)
Goal: To prepare students for responsible and effective participation in groups and communities.

Students will be able to:
(a) participate effectively in a variety of artistic, education, political, recreational, health and public service, or social service settings;
(b) interact with others of another culture in its indigenous setting through a structured experience;
(c) participate cooperatively in group athletic activity or artistic performance.

Course(s) which satisfy this goal area include:

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### Goal Area 13: Information Technology

(Requires 0-2 credits)

**Goals:** To familiarize students with the tools, concepts and societal impact of information technology and to develop the skills necessary to use this technology critically and effectively.

Students will be able to:

(a) use electronic information technology ethically and responsibly;
(b) access and retrieve information through electronic media, evaluating the accuracy and authenticity of that information;
(c) create, manage, and communicate information through electronic media;
(d) demonstrate a working knowledge of information technology terms and concepts;
(e) understand how computers function and the limits of computation and information technology;
(f) recognize changing technologies and make informed choices in their use.

**Course(s) which satisfy this goal area include:**

- EET 115 (3) Understanding Computers 13
- EET 116 (3) Communications-Past, Present & Future 13
- ENG 271W (4) Technical Communication 2, 13
- ENG 272W (4) Business Communication 2, 13
- IT 100 (4) Intro to Computing & Applications 9, 13
- IT 202W (4) Computers in Society 9, 13

### Goal Area 12: First Year Experience

(Requires 0-1 credits)

**Goal:** To promote further development of student success skills, such as reading, writing and speaking; help students gain intellectual confidence; build in the expectation of academic success; and to provide assistance in making the transition to the University.

Students will be able to:

(a) experience higher personal expectations of his/her ability to meaningfully participate in academic life;
(b) define and give examples of critical thinking;
(c) interact with other students regarding academic matters;
(d) affirm that careful thinking is an important aspect of the educational process;
(e) make a comfortable transition to college life.

**Course(s) which satisfy this goal area include:**

- CIVE 100 (1) Explorations in Engineering 12
- EE 100 (1) Exploration in Engineering 12
- FYEX 100 (1) First Year Seminar 12
- ME 100 (1) Exploration in Engineering 12
DIVERSE CULTURES GRADUATION REQUIREMENT (DCGR)

Note. Students graduating under the 2015-2016 catalog will satisfy DCGR by taking 1 Purple and 1 Gold course or 2 Purple courses.

Goals and Outcomes. Minnesota State Mankato has adopted the following policy on the role of diversity in education:

Diversity at Minnesota State Mankato is a commitment to create an understanding and appreciation of diverse peoples and diverse perspectives; a commitment to create an academic, cultural, and workplace environment and community that develops mutual respect for all and celebrates our differences.

In keeping with the spirit of this commitment, all Minnesota State Mankato undergraduate students must satisfy the DCGR for graduation. For purposes of further clarifying the DCGR, diversity is defined in comprehensive terms as the many faceted ways in which human beings differ from one another. Often overlapping, these differences can include: age, gender, national origin, sexual orientation, mental/physical ability, race/ethnicity.

GRADUATION RULES:

Diverse Cultures Graduation Requirement – Purple and Gold Courses
1. Students pursuing a baccalaureate degree must take either:
   a. at least one (1) course for a minimum of 3 credits from the list of courses designated as Purple (Content) and at least one (1) course for a minimum of 3 credits from the list of courses designated as Gold (Experiential & Reflective), OR
   b. at least two (2) courses for a minimum of 6 credits from the list of courses designated as Purple (Content).
2. One Purple course for a minimum of 3 credits satisfies the Diverse Cultures requirement for the AA or AS degree issued by Minnesota State Mankato.
3. Transfer students who have taken between 30 and 59 credits will be granted 3 Purple course credits and 3 Gold course credits, thus satisfying their entire Diverse Cultures Graduation Requirement.
4. Transfer students who have taken 60 or more credits or have already received an AA degree will be granted 3 Purple course credits and 3 Gold course credits, thus satisfying their entire Diverse Cultures Graduation Requirement.
5. Students must take courses from at least two different disciplines to satisfy the Diverse Cultures Graduation Requirement.
6. Students are encouraged to complete the Purple course requirement prior to completion of the Gold course requirement.

DIVERSE CULTURES - PURPLE (Content-Based)
To prepare students with course content and the analytical and reflective skills to better understand diversity in the United States and in other societies across the world.

Learning Outcomes
Students will be able to:
1. Master an understanding of diversity as defined by Minnesota State Mankato.
2. Acquire a substantive knowledge base to identify the impact of oppression for individuals from diverse populations.
3. Obtain the analytical skills necessary to make links between historical practices and contemporary U.S. societal issues of diversity.
4. Apply the same method for interpreting diversity issues in the United States to understanding issues of diversity in other societies across the world.
5. Develop an understanding of historical and contemporary social relations in specific societies across the world.

Satisfying Purple Courses
1. Purple courses are primarily aimed at helping students learn content.
2. Purple courses allow students to explore basic concepts such as oppression, prejudice, discrimination, racism and ethnocentrism and responses to each; civil liberties in the context of economic, political, social, religious and educational issues of race, gender, sexual orientation, age, class and disabilities in a pluralistic society.
3. Although Purple courses may focus primarily on one diverse group of people, the course content should relate the basic concepts and issues discussed to a variety of groups.
4. Courses must meet Purple learning outcome 1 and at least two of the other Purple learning outcomes.
5. Purple courses may have experiential and reflective components, but the primary focus is on content.

DIVERSE CULTURES - PURPLE COURSES

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DIVERSE CULTURES - GOLD (Experiential & Reflective)
To give students learning opportunities to experience diversity with reflection supervised by a faculty member; to assist them in recognizing and responding to conditions of marginalized populations. Marginalized populations refer to specific groups of peoples or individuals that are relegated to the outer edges of society or social standing, both in this country and abroad. Such people are often denied access to resources and privileges available to mainstream society.

Learning Outcomes
Students will be able to:
1. Interact with individuals from diverse populations outside the classroom and to have the opportunity to reflect on such interactions.
2. Demonstrate an acquisition of the basic knowledge and understanding of diversity related concepts so that the student’s experience will have meaning and context.
3. Integrate classroom knowledge with experiential learning in analyzing and responding to conditions of marginalized populations.
Students will explore basic concepts such as oppression, prejudice, discrimination, racism and ethnocentrism and responses to each; civil liberties in the context of economic, political, social, religious and educational issues of race, gender, sexual orientation, age, class and disabilities in a pluralistic society.

**Satisfying Gold Courses**

1. Gold courses require students have experiential encounters with diverse cultures and reflect on those experiences as part of the course requirements.
2. Gold courses must contain sufficient content regarding interactions with diverse populations to establish a context and conceptual base for the student to effectively reflect on the experiences.
3. Gold courses should present content that allows students to explore basic concepts such as oppression, prejudice, discrimination, racism and ethnocentrism and responses to each; civil liberties in the context of economic, political, social, religious and educational issues of race, gender, sexual orientation, age, class and disabilities in a pluralistic society.
4. Courses must meet all three Gold learning outcomes.

**DIVERSE CULTURES - GOLD COURSES**

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**Curricular Procedures.** The Diverse Cultures Graduation Requirement was made effective beginning with the 2009-2010 academic year. Courses that met the university’s previous Cultural Diversity requirement will not automatically be included in the list of Purple and Gold courses that meet the new requirement.

Departments will need to submit course proposals through the Curriculum Design System (CDS) to include these courses in the new requirement all course submissions for consideration as either Purple or Gold courses will be reviewed in a manner consistent with all other curricular proposals.

An individual course may be either a Purple course or a Gold course, but not both. Any 100-400 level undergraduate course that meets the relevant goals and outcomes may be included among the Purple and Gold courses. No consideration will be given to proposals that limit participation to specific sections of a course.

Only courses in their entirety, not specific sections of courses, are eligible for designation as Purple or Gold courses.

Courses without specific content (e.g., independent study, individual studies, directed readings, topics, internships, practicums, and field experience courses) will generally not be considered Purple or Gold courses. Exceptions may be made for specific cases if potential for achievement of the Purple or Gold course outcomes can be clearly demonstrated prior to registration for the course in question.

All Purple and Gold courses will undergo systematic assessment as established by the university’s curricular committees all departments and programs with Purple or Gold courses are expected to fully participate in the DCGR assessment process.

**WRITING INTENSIVE**

Minnesota State Mankato has adopted the following policy on the role of writing in education

**Goals and Outcomes.** Writing at Minnesota State Mankato is a commitment to all undergraduate students that they are given ample opportunity to develop sound writing skills that enable them to succeed in their respective professions. Students will continue to develop skills taught in Composition, applying them in the context of a particular discipline.

Students will be able to:

(a) Engage in effective writing processes, including the ability to generate ideas, draft, revise, format, and edit their work.

(b) Use writing to grapple with course content and reflect on their learning.

(c) Produce texts appropriate for an intended audience, purpose, and context.

(d) Display strong technical skills in areas such as grammar, mechanics, and source documentation.

In addition to demonstrating these competencies, students enrolled in upper-division writing-intensive courses will be able to:

(e) Write in academic, professional, or public genres related to the discipline, displaying an understanding of the genres’ communicative functions and contexts.

(f) Locate, evaluate, analyze, and use source material or data in their writing.

In keeping with the spirit of this commitment, all Minnesota State Mankato undergraduate students must satisfy the Writing Intensive graduation requirement for graduation. For purposes of further clarifying the Writing Intensive graduation requirement, ‘writing intensive’ is defined as 20 pages (250 words per page) of evaluated written work, spread across a course. The 20 pages of writing assigned in a Writing Intensive course might include a combination of informal, exploratory writing and formal, polished writing.

(a) Informal writing assignments allow students to grapple with course content and clarify their understanding and/or opinions of course material. This writing might include learning logs, response journals, lab notebooks, discussion boards and the like.

(b) Formal writing assignments require students to use writing as a means to communicate in more formal writing situations. Such assignments might ask students to write for real or imagined academic, professional, or public audiences and to write in genres/for communicative purposes appropriate to the discipline.

At least 10 of the 20 pages must receive written feedback from instructors. Faculty are encouraged to solicit a draft or other preliminary work, provide written feedback on this writing—supplemented, whenever possible, with feedback from other students - and allow students time for revision and editing.

A portion of class time should be dedicated to writing instruction, and writing should play a significant role in the course grade.

**Graduation Rules:**

Writing Intensive graduation requirements

1. Students pursuing a baccalaureate degree must take two (2) courses from different disciplines for a minimum of six (6) credits from the list of courses designated as writing intensive.

2. One (1) writing intensive course for a minimum of three (3) credits satisfies the Writing Intensive requirement for the AA degree issued by Minnesota State Mankato.

3. Transfer students who have taken thirty (30) or more credits or have already received an AA degree will be granted a minimum of three (3) Writing Intensive credits.
Course(s) which satisfy this goal area include:

- AET 488W  
- AET 489W  
- AIS 210W  
- AIS 240W  
- AIS 220W  
- AIS 300W  
- ANTH 438W  
- ANTH 421W  
- ANTH 436W  
- ART 265W  
- BIOL 103W  
- CHEM 381W  
- CHEM 466W  
- CIVE 370W  
- CMST 101W  
- CORR 447W  
- CS 201W  
- CS 498W  
- DANC 312W  
- DANC 484W  
- DANC 486W  
- DANC 120W  
- ECON 210W  
- ECON 314W  
- ECON 320W  
- ECON 482W  
- ECON 485W  
- EE 467W  
- EE 477W  
- ENG 112W  
- ENG 213W  
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- ENG 275W  
- ENG 211W  
- ENG 242W  
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- ETHN 202W  
- ETHN 203W  
- ETHN 204W  
- ETHN 300W  
- FILM 210W  
- FILM 216W  
- FILM 334W  
- GERO 200W  
- GWS 110W  
- GWS 251W  
- HIST 170W  
- HIST 180W  
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- HIST 260W  
- HIST 380W  
- HUM 280W  
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- HUM 283W  
- HUM 450W  
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- PHYS 475W  
- POL 103W  
- PSYC 103W  
- REHB 110W  
- RPLS 150W  
- SCAN 210W  
- SPAN 311W  
- SPAN 312W  
- SPED 448W  
- THEA 285W  
- THEA 417W  
- THEA 417W  
- THEA 485W  
- THEA 487W  
- URBS 230W

Curricular Procedures. The Writing Intensive (WI) graduation requirement was made effective with the 2012-2013 academic year. Courses that met the University’s previous Writing Intensive requirement will automatically be included in the list of Writing Intensive courses that meet the new requirement. Departments will need to submit course proposals through the Curriculum Design System (CDS) to include any new courses in the new requirement. All course submissions for consideration as Writing Intensive will be reviewed in a manner consistent with all other curricular proposals.

An individual course may be considered Writing Intensive. Any 100-400 level undergraduate course that meets the relevant goals and outcomes may be included as a Writing Intensive course. No consideration will be given to proposals that limit participation to specific sections of a course. Only courses in their entirety, not specific sections of courses, are eligible for designation as Writing Intensive courses.

Courses without specific content (e.g., independent study, individual studies, directed readings, topics, internships, practicums, and field experience courses) will generally not be considered Writing Intensive courses. Exceptions may be made for specific cases if potential for achievement of the Writing Intensive outcomes can be clearly demonstrated prior to registration for the course in question.

All Writing Intensive courses will undergo systematic assessment as established by the university’s curricular committees. All departments and programs with Writing Intensive courses are expected to fully participate in the Writing Intensive assessment process.
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CREDIT EVALUATION FORM

**GOAL AREA 1**

**COMMUNICATION**

Satisfied  

**PART A** Eng Comp (min of 1 course/3 credits – min grade of C or P)  

**PART B** Speech & Oral Reasoning (min of 1 course/3 credits)  

**GOAL AREA 2**

**CRITICAL THINKING**

Satisfied  

(min. of 1 course or completion of the rest of Gen Ed)  

**GOAL AREA 3**

**NATURAL SCIENCES**

Satisfied  

(min. of 2 courses from diff. depts with at least one lab/6 credits)  

**GOAL AREA 4**

**MATHEMATICAL/LOGICAL REASONING**

Satisfied  

(min. of 1 course/3 credits – min. grade of C or P)  

**GOAL AREA 5**

**HISTORY & SOCIAL & BEHAVIORAL SCIENCES**

Satisfied  

(min. of 2 courses from diff. depts/6 credits)  

**GOAL AREA 6**

**HUMANITIES & ARTS**

Satisfied  

(min. of 2 courses from diff. depts/6 credits)  

**GOAL AREA 7**

**HUMAN DIVERSITY**

Satisfied  

(min. of 1 course/3 credits)  

**GOAL AREA 8**

**GLOBAL PERSPECTIVE**

Satisfied  

(min. of 1 course/3 credits)  

**GOAL AREA 9**

**ETHICAL & CIVIC RESPONSIBILITY**

Satisfied  

(min. of 1 course/3 credits)  

**GOAL AREA 10**

**PEOPLE & THE ENVIRONMENT**

Satisfied  

(min. of 1 course/3 credits)  

**GOAL AREA 11**

**PERFORMANCE & PARTICIPATION**

Satisfied  

(2-3 credits)  

**GOAL AREA 12**

**FIRST YEAR EXPERIENCE**

Satisfied  

(0-1 credits)  

**GOAL AREA 13**

**INFORMATION TECHNOLOGY**

Satisfied  

(0-2 credits)  

**FOREIGN LANG**  

**BA STUDENTS ONLY**

Satisfied  

(1 year required/max. of 8 credits)  

**GENERAL EDUCATION**

The goal areas on this page form Minnesota State Mankato’s General Education requirement (GE). Satisfaction of GE requires a minimum of 44 credits and completion of goal areas 1-11. BA degrees also require a year of a single foreign language; the language courses may double count for GE if they are approved for GE credit. Detailed information about GE and degree requirements can be found in the Undergraduate Catalog.  

Transfer AS/AS degrees must have: 40 credits in goal areas 1-10; a min of 1 course in each goal area 3-10; and one course in each part of goal area 1. Goal areas 2 and 11 are exempt.
1 Consult the MSU Catalog for detailed information on graduation requirements.
2 Totals are not credited until all official transcripts have been received by MSU.
3 Consult with advisors/departments concerning use of courses in major(s) and minor(s).
4 To obtain a 4-year degree, students must have at least 30 credits from Minnesota State Mankato.
5 To achieve a 4-year degree, students must have at least 40 credits of upper-level (300-400).
6 All credits on this form are semester credits – 1 semester credit equals 1.5 quarter credits.
7 This document is available in alternative format to individuals with disabilities by calling the Office of the Registrar at 507-389-6266 (V), 800-627-3529.

### Symbols Used

- < > the course is used in more than one goal area but the credits only count once towards the 44 credit requirement
- ( ) the course has been unsuccessfully attempted
- 0 the course has been repeated
- ☐ the course has been academically reevaluated

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Accounting

College of Business

Department of Accounting & Business Law

150 Morris Hall • 507-389-2963

Chair: W. C. Brown

E. Ahrens; J. Baird; P. Brennan; A. Habib; S. Johnson; O. Kim; B. Pike; K. Rosacker; J. Estall; F. Siagian; R. Zelin

The accounting major is a professional program designed to prepare the student for work in one or more of three areas: public, industrial, or governmental/not for profit accounting.

POLICIES/INFORMATION

Admission to a Major in the College of Business. Admission to a major in the College of Business typically occurs at the beginning of the student’s junior year. The student may choose to pursue a degree in one or more of the following COB majors: Accounting, Finance, International Business, Management, or Marketing. Multiple criteria will be considered for admission to a major in the College of Business. Admission is competitive; meeting minimum requirements does not guarantee admission. Deadlines for application are: October I for Spring Semester and March I for Fall Semester.

Criteria Considered for Admission to the Accounting Major in the College of Business

1. Cumulative (Including Transfer) Grade Point Average: minimum 2.7
2. Credits and Courses: 33 completed credits of the 44 general education requirements
3. Completion of the following courses: IT 101, MATH 130, ACCT 200, ACCT 210, BLAW 200, MGMT 200, BUS 295, ECON 201, ECON 202, ECON 207. Complete one of the following courses PHIL 120W, PHIL 205W, PHIL 222W, PHIL 224W, PHIL 226W, PHIL 240W

Academic Advising. Students will initially receive their advising from the professional advisors in the College of Business Advising Center. When a student applies to the College of Business, he/she will be assigned a faculty advisor in the major area of study. Questions regarding the assignment of advisors can be answered in the College of Business Advising Center, 151 Morris Hall, 389-2963.

College of Business Policies. Students who are business minors, non-business majors or those who are not seeking a four-year degree may take up to 24 credits in the College of Business.

Students must be admitted to a College of Business major to be granted a Bachelor of Science degree in any College of Business major.

Residency. Transfer students must complete a minimum of 30 resident credits at the upper division (300-400) level in the College of Business at Minnesota State Mankato.

Transfer students pursuing a major or minor in the College of Business must complete at least 50% (one-half) of their major or minor coursework at Minnesota State Mankato.

GPA Policy. Students must earn a minimum grade point average of 2.0 (“C”) on the total courses taken in the College of Business and a 2.25 overall GPA to meet graduation requirements.

To begin taking 300 level courses for the Accounting minor, students must have a cumulative GPA of 2.7 or higher.

Accounting majors or minors must earn a grade of “C” or better in required accounting and business law classes.

P/N Grading Policy. No more than one-fourth of a student’s major shall consist of P/N grades.

Assessment Policy. The College of Business believes that the ongoing assessment of its programs makes a vital contribution to the quality of those programs and to student learning. Student participation is an important and expected part of the assessment process.

Internships. Students are encouraged to participate in business and industrial organizations through internship programs. Internships are available during the junior and senior years. Students interested in internships should interview early with the Internship Coordinator for enrollment in this program.

Student Organizations. Students are encouraged to participate in the Accounting Club. The club is designed to bring students together for both professional and social purposes. Professional activities provide members with a greater understanding of the accounting profession. These activities include speakers and tours, along with social activities.

The Council of Student Business Organizations (COSBO) which is comprised of the presidents of the organizations and the college representative of the Student Senate, works directly with the Dean’s office in the coordination of activities of the various organizations and sponsors activities of their own.

ACCOUNTING BS

Degree completion = 120 credits

Required General Education

ECON 201 Principles of Macroeconomics (3)
ECON 202 Principles of Microeconomics (3)
MATH 130 Finite Mathematics and Introductory Calculus (4)
(choose 3 credits)
PHIL 120W Introduction to Ethics (3)
PHIL 205W Culture, Identity, and Diversity (3)
PHIL 222W Medical Ethics (3)
PHIL 224W Business Ethics (3)
PHIL 226W Environmental Ethics (3)
PHIL 240W Law, Justice & Society (3)

Pre-requisites to the Major

ACCT 200 Financial Accounting (3)
ACCT 210 Managerial Accounting (3)
BLAW 200 Legal, Political, and Regulatory Environment of Business (3)
BUS 295 Professional Preparation for Business Careers (2)
ECON 207 Business Statistics (4)
IT 101 Introduction to Information Systems (3)
MGMT 200 Introduction to MIS (3)

Major Common Core

FINA 362 Business Finance (3)
IBUS 380 Principles of International Business (3)
MGMT 330 Principles of Management (3)
MGMT 346 Production & Operations Management (3)
MGMT 481 Business Policy & Strategy (3)
MRKT 310 Principles of Marketing (3)

Required for all Accounting Majors (“C” or better required)

ACCT 220 Accounting Cycle Applications (1)
ACCT 300 Intermediate Financial Accounting I (3)
ACCT 301 Intermediate Financial Accounting II (3)
ACCT 310 Management Accounting I (3)
ACCT 320 Accounting Information Systems (3)
ACCT 330 Individual Income Tax (3)
ACCT 400 Advanced Financial Accounting (3)
ACCT 410 Business Income Tax (3)
ACCT 421 Assurance Services I (3)
BLAW 450 Contracts, Sales, and Professional Responsibility (3)

Major Unrestricted Electives

BUS 397 IBE Practicum (3)

Required Minor: None
### ACCOUNTING MINOR

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tr>
<td>ACCT 200</td>
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<tr>
<td>ACCT 300</td>
<td>Intermediate Financial Accounting I (3)</td>
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<tr>
<td>ACCT 310</td>
<td>Management Accounting I (3)</td>
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### Minor Required Electives (choose 9 credits from the following)

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<td>ACCT 311</td>
<td>Management Accounting II (3)</td>
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<td>ACCT 320</td>
<td>Accounting Information Systems (3)</td>
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<td>ACCT 330</td>
<td>Individual Income Tax (3)</td>
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<td>ACCT 400</td>
<td>Advanced Financial Accounting (3)</td>
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<td>ACCT 410</td>
<td>Business Income Tax (3)</td>
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<tr>
<td>ACCT 420</td>
<td>Operational Auditing (3)</td>
<td>3</td>
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<tr>
<td>ACCT 421</td>
<td>Assurance Services I (3)</td>
<td>3</td>
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<td>ACCT 423</td>
<td>Fraud Examination (3)</td>
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<td>ACCT 470</td>
<td>Advanced Topics (3)</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 477</td>
<td>International Accounting (3)</td>
<td>3</td>
</tr>
</tbody>
</table>

### COURSE DESCRIPTIONS

#### BUS 100 (3) Introduction to Business and Business Careers
This course prepares students for success by exposing them to the requirements, expectations, resources and opportunities of the COB. Students will have business experiences and will develop professional skills.

Variable

#### BUS 295 (2) Professional Preparation for Business Careers
This course is required for admission to the College of Business for all business majors. The purpose of the course is to provide students with an overview of COB majors, allow students to create an academic plan for graduation, and develop professional skills needed for future job placement. Topics include cover letter and resume writing, interviewing skills, the process of networking, the internship program, etiquette skills, and requirements for graduation.

Fall, Spring

#### BUS 397 (3) IBE Practicum
BUS 397 is an applied course that entails developing, launching, managing, and closing a business with the cohort of students enrolled in the class. Students write and present a business plan as they seek financing for their start-up company. The business start-up experience creates a real-world context in which students practice the concepts introduced in MGMT 330, MKRT 310, and FINA 362. BUS 397 is part of the United Prairie Bank Integrated Business Experience, and students must enroll concurrently in BUS 397 and sections of FINA 362, MGMT 330, and MKRT 310 that are designated for IBE students.

Pre: Must be admitted to the College of Business
Coreq: FINA 362, MGMT 330, MKRT 310
Fall, Spring

#### ACCT 200 (3) Financial Accounting

Pre: IT 101, MATH 112 or MATH 130
Fall, Spring

#### ACCT 210 (3) Managerial Accounting
Preparation and analysis of cost-based management reports: use of cost information to make short-term operating decisions and long-term capital decisions.

Pre: ACCT 200
Fall, Spring

#### ACCT 217 (4) Survey of Financial and Managerial Accounting
This is an introductory course in financial and managerial accounting. It focuses on how to present, analyze, and interpret financial and managerial accounting information in order to make effective decisions in the business world.

Pre: IT 101, MATH 112

#### ACCT 218 (1) The Accounting Process
This course emphasizes the procedural aspects of financial accounting. Students will study the Accounting Cycle and receive hands-on practice journalizing business transactions, calculating and journalizing adjusting entries, and preparing financial statements.

Fall, Spring, Summer

Pre: ACCT 217
Coreq: ACCT 217

#### ACCT 220 (1) Accounting Cycle Applications
This course provides extensive hands-on practice applying all steps in the accounting cycle. Emphasis will be placed on completion of journal entries, adjusting entries, closing entries, and preparation of financial statements.

Fall, Spring

Pre: ACCT 200

#### ACCT 300 (3) Intermediate Financial Accounting I
An in-depth analysis of financial accounting concepts and procedures, and includes coverage of the income statement, balance sheet, time value of money, receivables and inventories.

Pre: ACCT 200, ACCT 210. Grade of B- or better in prerequisite courses.

Fall, Spring

#### ACCT 301 (3) Intermediate Financial Accounting II

Pre: ACCT 300
Fall, Spring

#### ACCT 310 (3) Management Accounting I
Emphasizes product and service costing, including job order and process costing systems. Other related topics are budgeting, pricing, cost-volume-profit analysis, standards and variance analysis.

Pre: ACCT 200 or ACCT 210
Fall, Spring

#### ACCT 311 (3) Management Accounting II
Contemporary managerial accounting and control systems including activity-based costing, strategic cost management, life cycle costing, Just-in-Time, inventory management, quality control, responsibility accounting. Other managerial issues include cost allocation, decentralization performance and productivity evaluation, theory of constraints, transfer pricing, capital budgeting and international issues in cost management.

Pre: ACCT 310
Variable

#### ACCT 320 (3) Accounting Information Systems
A discussion of various accounting information systems. Topics include documentation, internal control, system design, knowledge structures, database design, software evaluation, systems applications and current developments.

Pre: ACCT 300
Fall, Spring

#### ACCT 330 (3) Individual Income Tax
The course examines the principles and procedures relating to the determination and computation of federal income taxes for an individual. Federal estate tax, gift tax, and income taxation of estates and trusts are also examined.

Pre: ACCT 200, ACCT 210
Fall, Spring

#### ACCT 398 (0) CPT: Co-Operative Experience
Curricular Practical Training: Co-Operative Experience is a zero-credit full-time practical training experience for one summer and on adjacent fall or spring term. Special rules apply to preserve full-time student status. Please contact an advisor in your program for complete information.

Pre: At least 60 credits earned; in good standing; instructor permission; co-op contract; other prerequisites may also apply.

Fall, Spring
The study of aging has from its founding included the biological, psychological and social perspectives. The Minor in Aging Studies provides undergraduate students with the opportunity to explore these varied perspectives while gaining foundational knowledge of aging. Within the next two decades, elders over the age of 65 will make up 25% of the population in the United States. Understanding aging processes and issues will support work in any discipline which makes the study of aging a valuable asset.

Aging Studies (Previously Gerontology)

College of Social & Behavioral Sciences

Aging Studies Program

113 Armstrong Hall • 507-389-1561
Website: sbs.mnsu.edu/agingstudies

Donald Ebel, Director

Faculty: Michael Bentley (Biological Sciences); Kofi Danso (Social Work), Donald Ebel (Sociology); Kathryn Elliott (Anthropology); Jeffrey Buchanan (Psychology); Norma Krumwiede (Nursing); Andrea Lassiter (Psychology); Judith Luebke (Health Science); Mary Frances Visser (Human Performance); Mark Windschitl (Health Science); Jim Wise (Recreation, Parks and Leisure Services); Diane Witt (Nursing), Catarina Fritz (Sociology); Keith Luebke (Nonprofit Leadership)

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POLICIES/INFORMATION

All Aging Studies students must register with the Aging Studies Program director at the beginning of their program.

GPA Policy. Aging Studies minors are urged to maintain a 3.0 or better GPA to maximize their options for professional employment and graduate study.

P/N Grading Policy. All coursework for the minor, with the exception of the internship and the practicum, must be taken for a letter grade.

AGING STUDIES MINOR

Core (choose 3 credits)
GERO 200 Family Dynamics of Aging (3)
GERO 200W Family Dynamics of Aging (3)

Health Core (choose 3 credits)
ANTH 421W Health, Culture and Disease (3)
BIOL 417 Biology of Aging and Chronic Diseases (3)
HLTH 455 Health and Aging (3)
Social and Behavioral Science Core (choose 6 credits)
ANTH 436W Anthropology of Aging (3)
PSYC 466 Psychology of Aging (4)
SOC 404 Sociology of Aging (3)
SOC 405 Sociology of Death (3)
SOWK 419 Social Work and Aging (3)

Required Internship (choose 3 credits)
GERO 497 Internship (1-6)
GERO 498 Practicum: Nursing Home Administration (1-6)

Elective
Please note that students may not take both SOC 405: Sociology of Death and HLTH 441: Death Education for credit toward this Minor.

Elective Credits (choose 6 credits)
FCS 474 Community Resources and Family Support (3)
GERO 450 Innovations in Aging Policy (3)
GERO 480 Nursing Home Administration (3)
GERO 485 Topics in Gerontology (1-3)
GERO 499 Individual Study in Gerontology (1-4)
HLTH 441 Death Education (3)
RPLS 482 Leisure and Older Adults (3)

UNDERGRADUATE CERTIFICATION IN LONG-TERM ADMINISTRATION
The Undergraduate Certificate in Long-Term Care Administration provides multidisciplinary perspectives and coursework which culminates in a professional practicum experience. Students engaging with this certificate typically expect to enter careers in long-term care administration in skilled nursing facilities, nursing homes or rehabilitation facilities. Most students will also take both the Minnesota and federal nursing home administrator license exams once all coursework is completed.

Major Common Core
ACCT 210 Managerial Accounting (3)
GERO 480 Nursing Home Administration (3)
GERO 498 Practicum: Nursing Home Administration (1-6)
HLTH 455 Health and Aging (3)
MGMT 200 Introduction to MIS (3)
MGMT 330 Principles of Management (3)
MGMT 340 Human Resource Management (3)

Major Restricted Electives
Gerontology Electives
(choose 3-4 credits from the following)
GERO 200 Aging: Interdisciplinary Perspectives (3)
GERO 200W Family Dynamics of Aging (3)
SOC 404 Sociology of Aging (3)

AGING STUDIES MINOR FOR NURSING STUDENTS
The Minor in Aging Studies for Nursing Students provides undergraduate nursing students with the opportunity to explore the biological, psychological and social perspectives on aging while enhancing their specific knowledge of nursing in relation to older persons. Within the next two decades elders over the age of 65 will comprise 25% of the population in the United States leading to a shortage of over one million nurses to serve the aging population, making this minor particularly beneficial in supporting this career choice for nursing students. The University is a member of the Association for Gerontology in Higher Education.

P/N Grading Policy. All coursework for the minor, with the exception of the internship and practicum, must be taken for a letter grade.

Note: These policies are related to the Aging Studies Program only. Students choosing to minor in Aging Studies must still adhere to any and all policies set forward by the School of Nursing. Students are advised to meet with their Nursing advisor prior to registering for the minor with the Aging Studies Program director.

Minor Core

Nursing Core
NURS 334 Physiologic Integrity I (4)
NURS 335 Family and Societal Nursing Inquiry (3)
NURS 336 Assessment and Nursing Procedures (5)
NURS 366 Quality, Safety, and Informatics in Nursing Practice (3)
NURS 434 Physiologic Integrity III (4)
NURS 435 Nursing Care of Families in Transition II (3)

Required Core (choose 3 credits)
GERO 200 Aging: Interdisciplinary Perspectives (3)
GERO 200W Family Dynamics of Aging (3)

Social and Behavioral Science Core (choose 6 credits)
ANTH 436 Anthropology of Aging (3)
PSYC 466 Psychology of Aging (3)
SOC 404 Sociology of Aging (3)
SOWK 419 Social Work and Aging (3)

Minnesota State Mankato’s Nursing Home Administration Track for Licensure in the State of Minnesota. A license is required to administer a nursing home in each of the 50 states.

In order to complete all academic course work for licensure, students must complete one class from each subpart (of which there are eight) and a practicum. Program consists of 24-25 credits.
- Subpart 1 - Organizational Management: HLTH 659, Health Care Administration or MGMT 330, Principles of Management
- Subpart 2 - Managerial Accounting: ACCT 210, Managerial Accounting
- Subpart 3 - Gerontology: GERO 200, Aging: Interdisciplinary Perspectives or SOC 404 / SOC 504, Sociology of Aging
- Subpart 4 - Health Care and Medical Needs: HLTH 455 / HLTH 555, Health and Aging or NURS 340, Gerontological Nursing
- Subpart 5 - Nursing Facility Services, Programs and Issues, Subpart 7 - Regulatory Management: GERO 480 / GERO 580, Nursing Home Administration
- Subpart 8 - Information Uses: MGMT 200, Introduction to MIS
- Practicum: GERO 498 / GERO 698, Practicum: Nursing Home Administration

COURSE DESCRIPTIONS

GERO 200 (3) Family Dynamics of Aging
This course will answer the question “Why should I care about getting old when I am young?” through an exploration of the life course perspective, service learning opportunities, and written reflection and exploration.
Fall, Spring
GE-2, GE-7
Diverse Cultures - Gold

GERO 200W (3) Family Dynamics of Aging
This course will answer the question “Why should I care about getting old when I am young?” through an exploration of the life course perspective, service learning opportunities, and written reflection and exploration.
Fall, Spring
W1, GE-2, GE-7
Diverse Cultures - Gold

Policies/Information
All Aging Studies students must register with the Aging Studies Program director at the beginning of their program.

GPA Policy. Aging Studies minors are urged to maintain a 3.0 or better GPA to maximize their options for professional employment and graduate study.

www.mnsu.edu 2015-2016 Undergraduate Catalog 49
American Indigenous Studies

Closest affiliation to the College of Social & Behavioral Sciences
American Indian Studies Program
335 Trafton Science Center N 335 • 507-389-3224
Email: rhonda.dass@mnsu.edu

Director: Rhonda Dass
Faculty: Rhonda Dass, Chelsea Mead

American Indigenous Studies (AIS) provides an interdisciplinary and broad understanding of Indigenous Americans, especially the Dakota, and their respective ways of life in the past, present, and future. AIS welcomes all students - Native and non-native - to pursue knowledge of Indigenous American cultures, knowledge, languages, histories, politics, media, and other topics. The AIS program will prepare students to pursue graduate studies and careers located in tribal communities or in ethnically diverse settings. Incorporating Indigenous perspectives into the curriculum, AIS facilitates a space whereby Indigenous American worldviews will be an enduring and integral part of the diverse intellectual atmosphere of the University.

POLICIES/INFORMATION

Admission to Major is granted by the American Indian Studies Program. American Indian Studies adheres to the minimum University admission requirements: 1) a minimum of 32 earned semester credit hours and 2) a minimum cumulative GPA of 2.00 (“C”).

AMERICAN INDIGENOUS STUDIES BA

Degree completion = 120 credits

Prerequisites for Major

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<thead>
<tr>
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<th>Credits</th>
<th>Title</th>
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<tr>
<td>AIS 101</td>
<td>3</td>
<td>Introductions to American Indigenous Studies</td>
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<td>AIS 102</td>
<td>4</td>
<td>The Story of American Indian Country to 1900</td>
</tr>
<tr>
<td>AIS 103</td>
<td>4</td>
<td>The Story of American Indian Country to Present</td>
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Major Common Core

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<tr>
<td>AIS 220W</td>
<td>3</td>
<td>Introduction to Tribal Sovereignty</td>
</tr>
<tr>
<td>AIS 230W</td>
<td>3</td>
<td>American Indians of Minnesota</td>
</tr>
<tr>
<td>AIS 460</td>
<td>3</td>
<td>Behaving Like Relatives</td>
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(choose 3 credits - one version of the course)

AIS 210 | 3 | Oral Traditions |
AIS 210W | 3 | Oral Traditions |

Allied Health and Nursing Intro. Course

Allied Health and Nursing Intro. Course
124 Myers Field House • 507-389-6315
website: http://ahn.mnsu.edu/

Dean: Kristine Retherford

The college does not offer a degree entitled Allied Health and Nursing, but it does include six academic departments and one school: Dental Hygiene; Family Consumer Science; Health Science; Human Performance; Recreation, Parks and Leisure Services; Speech, Hearing and Rehabilitation Services; and the School of Nursing which offer a number of undergraduate academic majors and minors. These include: athletic coaching; alcohol and drug studies; child development and family studies; communication disorders; community health; consumer studies; corporate and community fitness/wellness; dental hygiene; development/adaptive physical education; dietetics; exercise science; family consumer science; foods and nutrition; health and physical education; nursing, recreation, parks and leisure services; therapeutic recreation; leisure planning and management; resource management; sport management; sport medicine. Post-baccalaureate work, leading to a Master’s degree is available in many of the programs, along with a collaborative doctoral program in the School of Nursing. In addition, the college coordinates Pre-Physical Therapy and Pre-Occupational Therapy pre-professional programs.

COURSE DESCRIPTION

CAHN 101W (3) The Health Care Professions
This interdisciplinary course is designed to introduce students to health careers and related professions. It is a writing intensive course preparing students to become effective communicators within the context of health care settings. Fall, Spring, Summer WI
AMERICAN INDIGENOUS STUDIES MINOR

Minor Core
- AIS 210W Introduction to Tribal Sovereignty (3)
- AIS 220W American Indians of Minnesota (3)
- AIS 460 Behaving Like Relatives (3)

Minor Electives (choose 9 credits)
- AIS 210W Oral Traditions (3)
- AIS 240 American Indian Women (3)
- AIS 275 Selected Topics (3)
- AIS 300W American Indian Leaders (3)
- AIS 340 American Indians in Film (3)
- AIS 360 Indigenous People and Environmental Struggles (3)
- AIS 380 The Sacred Landscape (3)
- AIS 410 American Indian Folklore (3)
- AIS 455 Museum Science and Representation (3)
- AIS 475 Selected Topics (3)
- AIS 497 Internship (1-12)
- AIS 499 Individual Study (1-6)

AMERICAN INDIGENOUS STUDIES CERTIFICATE

Students obtain an understanding of the Indigenous American experience in the United States. Students begin to comprehend the vast history of native cultures and the scope of contemporary issues facing Indigenous Americans today. The certificate is designed to enhance any major.

Major Restricted Electives
- Foundation Courses (choose 6 credits)
  - AIS 101 Introduction to American Indigenous Studies (3)
  - AIS 210W Oral Traditions (3)
  - AIS 220W Introduction to Tribal Sovereignty (3)
  - AIS 230W American Indians of Minnesota (3)
  - AIS 240W American Indian Women (3)
  - AIS 275 Selected Topics (3)

Major Unrestricted Electives
- Expanded courses (choose 9 credits)
  - AIS 340 American Indians in Film (3)
  - AIS 380 The Sacred Landscape (3)
  - AIS 410 American Indian Folklore (3)
  - AIS 455 Museum Science and Representation (3)
  - AIS 460 Behaving Like Relatives (3)
  - AIS 475 Selected Topics (3)
  - ANTH 410 Archaeology of Minnesota (3)
  - ANTH 411 Archaeology of Native North America (3)
  - ENG 318 Multicultural Literature (2-4)
  - ENG 436 Native American Literature (2-4)
  - ENG 436 Native American Literature (2-4)
  - SOC 360 Indigenous Peoples and Environmental Struggles (3)

COURSE DESCRIPTIONS
- AIS 101 (3) Introduction to American Indigenous Studies
  Class introduces students to the discipline and surveys both historic and contemporary topics of importance to American Indian Studies including gender roles, education, sovereignty, treaties, and oral tradition.
  GE-5, GE-7
  Diverse Cultures - Purple
AIS 102 (4) The Story of American Indian Country to 1900
The story of American Indian Country has often been told from the perspective of others instead of from the community. This class re-examines the narrative and shifts the perspective of the story. Topics of cross-cultural interactions, policy formations, cultural evolution, survival and negotiation are examined.
Variable
GE-5, GE-7
Diverse Cultures - Purple

AIS 103 (3) The Story of American Indian Country 1900 to Present
The story of American Indian Country has often been told from the perspective of others instead of from the community. The class re-examines the narrative and shifts the perspective of the story. Topics of cross-cultural interactions, policy formations, cultural evolution, survival and negotiation are examined.
Fall (On-Demand), Spring (On-Demand), Summer (On-Demand)
GE-5, GE-7

AIS 110 (4) Dakota Culture I
This course provides the first steps in understanding the Dakota culture through the language of the Oyate or Dakota people. Students will be introduced to culture and concepts through the Dakota language and learn to understand the words from a Dakota worldview.
Pre: AIS 101
Variable
Diverse Cultures - Purple

AIS 111 (4) Dakota Culture II
This course provides the second step in understanding the Dakota culture through the language of the Oyate or Dakota people. Students will continue to explore an understanding of culture and concepts through the Dakota language and learn to understand the words from a Dakota worldview.
Pre: AIS 101, AIS 110
Variable
Diverse Cultures - Purple

AIS 210 (3) Oral Traditions
Oral traditions are at the base of all American Indian cultures. This class will provide students with the necessary tools for a better understanding of traditional knowledge and its importance within diverse traditional cultures.
Variable
GE-5, GE-7
Diverse Cultures - Purple

AIS 210W (3) Oral Traditions
Oral traditions are at the base of all American Indian cultures. This class will provide students with the necessary tools for a better understanding of traditional knowledge and its importance within diverse traditional cultures.
Variable
WI, GE-5, GE-7
Diverse Cultures - Purple

AIS 220W (3) Introduction to Tribal Sovereignty
Course introduces students to the legal side of being American Indian. Politics and policies will be examined to show how a contemporary native experience is shaped through American courts, Presidential chambers, and Native activist movements.
Pre: AIS 101
Variable
WI, GE-5, GE-7
Diverse Cultures - Purple

AIS 230W (3) American Indians of Minnesota
This course will provide an overview of Minnesota Indian nations and their relations to each other and the effects of European incursion. Subsequent relations will focus on the US-Dakota war and its aftermath.
Variable
WI, GE-5, GE-7
Diverse Cultures - Purple

AIS 240 (3) American Indian Women
Being American Indian and being a woman creates a unique situation for women who have been directly influenced by the differences of gender roles from intersecting cultures. This course will focus on how those differences have affected American Indian Women.
Variable
GE-5, GE-7
Diverse Cultures - Purple

AIS 240W (3) American Indian Women
Being American Indian and being woman creates a unique situation for women who have been directly influenced by the differences of gender roles from two intersecting cultures. This course will focus on how those differences have affected American Indian Women.
Variable
WI, GE-5, GE-7
Diverse Cultures - Purple

AIS 275 (3) Selected Topics: Varies
The course is offered according to student demand and instructor availability/expertise. A variety of topics related to ethnic and cultural areas will provide curriculum enrichment on an ongoing basis.
Variable

AIS 300W (3) American Indian Leaders
Examines leadership prior to European colonization, the overlap of Indian and colonial leadership, contemporary governmental leadership, and contemporary tribal leadership. Defines what is and is not leadership and examine characteristics of individuals deserving the title of leader among American Indians.
Variable
WI

AIS 340 (3) American Indians in Film
This course examines American Indian identity as it relates to Hollywood film industry history. Underlying issues of contemporary Indians are also addressed through an introduction to Native Cinema and the effects of current technologies and globalization.
Variable
Diverse Cultures - Purple

AIS 360 (3) Indigenous Peoples and Environmental Struggles
Introduces students to the differences between indigenous and Western views of the environment. Analyzes the impact of invasion and encroachment on indigenous societies' interactions with nature. Compares historical and contemporary environmental issues in indigenous societies.
Variable
GE-10
Diverse Cultures - Purple

AIS 380 (3) The Sacred Landscape
Course introduces students to the various ways that land is used by American Indians. We will explore traditional land use, contemporary land use, and land issues that impact American Indians and cultural activities that are tied to the land.
Variable
Diverse Cultures - Purple

AIS 398 (0) CPT: Co-Operative Experience
Curricular Practical Training: Co-Operative Experience is a zero-credit full-time practical training experience for one summer and on adjacent fall or spring term. Special rules apply to preserve full-time student status. Please contact an advisor in your program for complete information.
Pre: At least 60 credits earned; in good standing; instructor permission; co-op contract; other prerequisites may also apply.
Fall, Spring, Summer

AIS 410 (3) American Indian Folklore
This course will provide students with a greater understanding of the social structure of American Indian nations through the production, reproduction and revival of traditions. This will include looking at oral, musical, kinetic, ideational, and material traditions.
Variable
AIS 455 (3) Museum Science and Representation
Introduces students to museum science and how historic constructs, practices, and contemporary issues of the museum as an institution relates to the representation of American Indians. Focus will be on translating Western practices to an Indigenous aesthetic.
Variable
Diverse Cultures - Gold

AIS 460 (3) Behaving Like Relatives
Students gain practical knowledge of fieldwork techniques and experience through experiential learning. Students learn to approach elders appropriately with regards to age, social status, and gender, in order to build a cross-cultural kinship relationship i.e., to behave like relatives.
Pre: AIS 101 or AIS 102
Variable
Diverse Cultures - Gold

AIS 475 (3) Selected Topics: Varies
This course is offered according to student demand and instructor availability/expertise. A variety of topics related to ethnic and cultural areas will provide curriculum enrichment on an ongoing basis.
Variable

AIS 497 (1-12) Internship
Field experience in a setting appropriate to the discipline of American Indian Studies. Requires advanced standing in American Indian Studies and consent of supervising faculty.
Diverse Cultures - Gold

AIS 499 (1-6) Individual Study
Allows for an advanced level pursuit of special projects of research on an independent basis. Requires coordination with a faculty member.
On-Demand

Anthropology
College of Social & Behavioral Sciences
Department of Anthropology
358 Trafton Science Center N • 507-389-6318

Chair: Susan L. Schalge
J. Heath Anderson, Kathleen Blue, Rhonda Dass, Kathryn Elliott, Chelsea Mead, Susan Schalge, Ronald Schirmer

Anthropology is the study of the origins and diversity of human biology and culture. Anthropologists study the evolution and adaptations of the human species through the four major subdivisions of the discipline: archaeology, biological anthropology, linguistics, and cultural anthropology. The major provides training in all areas of anthropology for the liberal arts major with an interest in global awareness, cultural diversity, human evolution and adaptation, prehistory, and an understanding of human behavior. For those interested in pursuing anthropology as a career, the anthropology major is also designed to prepare students for graduate training.

Policies/Information
Admission to Major. Admission to major is granted by the department. Minimum university admission requirements are:
- a minimum of 32 earned semester credit hours.
- a minimum cumulative GPA of 2.00 (“C”).
Contact the department for application procedures.
P/N Grading Policy. Up to 1/4 of the credits for the major may be taken P/N, but caution in using this option in the major is urged.
GPA Policy. Anthropology majors are urged to maintain a 3.0 or better GPA to maximize their options for graduate study and professional employment.

Students majoring in anthropology have an advisor from their area of interest assigned to them. Questions and concerns pertaining to advising and the assignment of advisors can be answered by Advising “U”, 111 Armstrong Hall, telephone 507-389-6306, or by the department chair.

Anthropology BA
Degree completion = 120 credits

Prerequisites to the Major
ANTH 101 Introduction to Anthropology (4)

Major Common Core
ANTH 210 Introduction to Archaeology (4)
ANTH 220 Human Origins (4)
ANTH 230 Peoples and Cultures of the World (4)
ANTH 240 Language and Culture (4)
ANTH 300 Introduction of Anthropology Methods (3)
ANTH 438W Anthropological Theory (4)
ANTH 475 Senior Thesis (3)
ANTH 300 must be taken prior to ANTH 475. ANTH 475 Senior Thesis must be taken under the guidance of the student’s advisor.

Major Restricted Electives
(Choose 9 credits from range of courses listed below with exclusion of courses listed in Major Common Core)
ANTH 102 - ANTH 499

Other Graduation Requirements
Required for Bachelor of Arts (BA) degree ONLY: Language (8 credits)

Required Minor: Yes. Any.

Anthropology BS
Degree completion = 120 credits

Prerequisites to the Major
ANTH 101 Introduction to Anthropology (4)

Major Common Core
ANTH 210 Introduction to Archaeology (4)
ANTH 220 Human Origins (4)
ANTH 230 Peoples and Cultures of the World (4)
ANTH 240 Language and Culture (4)
ANTH 300 Introduction of Anthropology Methods (3)
ANTH 438W Anthropological Theory (4)
ANTH 475 Senior Thesis (3)
ANTH 300 must be taken prior to ANTH 475. ANTH 475 Senior Thesis must be taken under the guidance of the student’s advisor.

Major Restricted Electives
(Choose 9 credits from range of courses listed below with exclusion of courses listed in Major Common Core)
ANTH 102 - ANTH 499

Required Minor: Yes. Any.

Anthropology Minor

Required for Minor
ANTH 101 Introduction to Anthropology (4)
ANTHropology continued

Required Core
(Choose a minimum of 8 credits from the following)
ANTH 210 Introduction to Archaeology (4)
ANTH 220 Human Origins (4)
ANTH 230 Peoples and Cultures of the World (4)
ANTH 240 Language and Culture (4)
ANTH 300 Introduction to Anthropology Methods (3)
ANTH 438W Anthropological Theory (4)

Required Electives for Minor
(Choose 6-10 credits from range of courses listed below with exclusion of courses taken in Required Core)
ANTH 102 - ANTH 499

MUSEUM STUDIES CERTIFICATE
The aim of this program is to provide a perspective on the theory and practice of museums in an expanding global environment of technological, social and political change for current and future museum professionals. It emphasizes the role of technology as a pervasive aspect in today’s museum, examines new models of education, exhibition, and business strategies, and explores the role of the museum as an agent of social change.

We welcome students interested in all types of museums including history, technology, science, art, special topic or themed museums, historic sites, national parks, and zoos, and those interested in exhibitions for corporations, government agencies, and private organizations.

Required for Certificate
ART 265W Art As Politics (3)
MUSE 200W Introduction to Museum Studies (3)
NPL 273 Introduction to the Nonprofit Sector (3)

Major Restricted Electives (choose 6 credits)
AIS 455 Museum Science and Representation (3)
ANTH 414 Museology (3)
ANTH 415 Cultural Resource Management (3)
ART 434 Arts Administration (3)
ART 464 Art Museum and Exhibition Studies (3)
MUSE 497 Internship (1-6)
MUSE 499 Individual Study (1-6)
NPL 473 Advanced Workshop in Nonprofit Leadership (3)
PHIL 460 Philosophy of the Arts (3)
RPLS 465 Event Management (3)
URBS 453 Grants Administration (3)

COURSE DESCRIPTIONS

ANTH 101 (4) Introduction to Anthropology
This course surveys human biological and cultural diversity through time and space. You will learn about questions like: “How did humans evolve?” and “How do anthropologists collect and interpret information about human beings and their ancestors?” Fall, Spring GE-5, GE-8 Diverse Cultures - Purple

ANTH 102 (4) Ancient Peoples
A general survey of the evolution of human society from the earliest times to the development of written languages. Topics include the evolution of tools, the agricultural revolution, and the origins of urban life. GE-5, GE-10

ANTH 120 (3) Forensic Science: An Anthropological Approach
This anthropology course explores the areas of anatomical forensic science. Students will learn the techniques and methodology involved in collection, preservation, and analysis of evidence pertaining to human remains. The course will include such subjects as analysis of skeletal trauma, victim identification, bite-mark analysis, and crime scene recovery methods. Ethics and standards in medico-legal investigations will also be stressed. GE-3

ANTH 210 (4) Introduction to Archaeology
A comprehensive examination of modern archaeological theory, methods, and activities focusing on American archaeology. Emphasis will be given to data collection, data analysis, and museology. Lab included. GE-3, GE-10, Variable

ANTH 220 (4) Human Origins
An introduction to the study of human biological evolution and variation. This course focuses on evolutionary theory, mechanisms of evolutionary change, and the fossil record of human evolution. Lab included. Fall GE-3

ANTH 230 (4) People and Cultures of the World
This introduction to cultural anthropology covers cultural diversity and organization by examining several examples in detail. Both anthropological methodology and theory will be important parts of this course. Fall, Spring GE-8 Diverse Cultures - Purple

ANTH 240 (4) Language and Culture
Language provides not only communication but identification of oneself and one’s group. Humans are extremely sensitive to language, dialect, jargon, and slang. An understanding of language and its relationship to culture is basic to any understanding of human beings. Spring GE-5, GE-8 Diverse Cultures - Gold

ANTH 245 (3) The Social Life of Swearing
What qualifies a word as “bad”? How does profanity, cursing, and swearing evolve across time and vary across cultures? Where does the power of these “bad” words come from? What relationship do these words have to issues of gender, race, and class? This course examines the historical evolution and modern usage of obscenities to answer these questions. GE-7, GE-9 Fall (On-Demand), Spring (On-Demand), Summer (On-Demand) Diverse Cultures - Purple

ANTH 250W (4) Portraits of Culture
Survey of human cultures through a variety of classic and contemporary anthropological writing and film. Students write weekly reflections. Written work is shared, discussed, and revised. Spring, Summer WI, GE-5 Diverse Cultures - Purple

ANTH 260 (3) Vampires, Werewolves, and Zombies: Folklore of Fear
Fears and how we depict it in popular culture. Course examines folklore traditions and how they translate in contemporary storytelling formats. Variable GE-5, GE-8 Diverse Cultures - Purple

ANTH 261 (3) Taboos, Tattoos, and Tshirts: Culture and Body Art
People all around the world use tattoos, piercing, makeup and dress codes as symbolic tools to represent their ideas of self, or as a means of gender, ethnicity, and class control and domination. This course looks at how people express connection to and disconnection from culture through body art practices. Alt-Fall GE 5, GE-8 Diverse Cultures - Purple
**ANTH 269 (3) Anthropology of Sex**
Sex and our relationship with it. This course examines the topics of sex, sexuality, and gender by exploring the diverse range of sexual cultures of the world in the past and the present. Attention is given to the role of language, biology, culture, and the archaeological record of societies’s fascination with sex.
Fall (On-Demand), Spring (On-Demand), Summer (On-Demand)
GE-5, GE-7
Diverse Cultures - Purple

**ANTH 280 (3) Engaged Anthropology**
Engaged Anthropology is a multidimensional service-learning course designed to facilitate real-world learning experiences for students on broad social issues; practice a variety of anthropological concepts, theories, and methods; and provide service to the local community.
Pre: ANTH 101, ANTH 230, or instructor Permission.
GE-7, GE-11
Diverse Cultures - Gold

**ANTH 285 (1-3) Special Topics**
Courses to be offered just one time or on an irregular basis according to topic demand for a general interest, sophomore level course.
Variable

**ANTH 290 (1-3) Exploratory Studies**
Individual study at an introductory level on the topic of student’s choice. Designed for students who wish to pursue independent study at the first year-sophomore level rather than the more advanced level of the ANTH 499 individual study.
Pre: Consent
Variable

**ANTH 300 (3) Introduction to Anthropology Methods**
This course examines the methodologies of all four fields of Anthropology. Students will gain practical experience in various methods that professionals utilize on a regular basis within the discipline. Discussions of the issues surrounding various anthropological methods will be part of this course.
Pre: ANTH 101
Fall

**ANTH 311 (3) Ancient Egypt**
An in-depth study of ancient Egypt, focusing on the relationship between cultural development and the unique Egyptian environment of the time. Emphasis will be placed on the interpretation of archaeological discoveries in the area.
Variable

**ANTH 323 (3) Primate Behavior**
An examination of the ecology, behavior, and biology of living primates.
Pre: ANTH 101 or ANTH 220 or consent
Variable

**ANTH 331 (3) Environmental Anthropology**
This course focuses on studying the diversity of human societies using environmental approaches such as evolutionary/ecological perspectives and systems modeling. Case studies will be drawn from Native American cultures.

**ANTH 332 (3) Anthropology of Religion**
The variability and universality of human religious expression are explored in specific cross-cultural contexts.
Fall
Diverse Cultures - Purple

**ANTH 333 (3) Ethnographic Film**
This course emphasizes the wealth of ethnographic information which may be captured by visual media. You will learn how to interpret the final product and how to recognize the limitations of visual presentations.
Variable

**ANTH 340 (4) Language and Power**
Language is powerful. What we say, how we say it, where we say it, and to whom we say it matters. This course explores the connection between power, language, performance, and identity. The relationships between language, gender, sexuality, race, ethnicity, and socioeconomic class are explored by investigating historical and present day sources of language practices and events.
GE-5, GE-7
Fall (On-Demand), Spring (On-Demand), Summer (On-Demand)
Diverse Cultures - Purple

**ANTH 398 (0) CPT: Co-Operative Experience**
Curricular Practical Training: Co-Operative Experience is a zero-credit full-time practical training experience for one summer and on adjacent fall or spring term. Special rules apply to preserve full-time student status. Please contact an advisor in your program for complete information.
Pre: At least 60 credits earned; in good standing; instructor permission; co-op contract; other prerequisites may also apply.
Fall, Spring, Summer

**ANTH 410 (3) Archaeology of Minnesota**
A detailed study of Minnesota archaeology from ca. 12,000 years ago to ca. 1900, with a focus on diverse and changing Native American populations.

**ANTH 411 (3) Archaeology of Native North America**
A survey of current knowledge about the prehistoric Native American inhabitants of North America from ca. 15,000 years ago until ca. 1900. Topics will focus on the processes of cultural development, change, and disruption by Euro-American influences.

**ANTH 412 (3) Archaeology of Latin America**
A detailed study of Latin American archaeology from ca. 12,000 years ago to ca.1900, with a focus on diverse and changing Native American populations.

**ANTH 414 (3) Museology**
A review of the history and philosophy of museums, the legal and ethical issues impacting museums, the nature and treatment of collections, creation, exhibition, and exhibit design, the role of museums in education, museum personnel and financial management, and museums in the technological/electronic age.
Pre: ANTH 101, ANTH 210, or consent
Variable

**ANTH 415 (3) Cultural Resource Management**
Review of how cultural resources are being preserved and managed under current laws and regulations. Emphasis on examination of conservation, preservation and rescue methods in modern archaeology, and problems and issues in historic preservation and resource management.
Pre: ANTH 101, ANTH 210 or consent
Variable

**ANTH 416 (3) Archeological Methods**
An intensive exploration of how to identify, catalogue, and curate archeological materials in a laboratory setting. Topics will include lithics, pottery, faunal, floral, metal, and other materials as well as data structure and recordation.
Fall (On-Demand)

**ANTH 420 (3) Human Osteology**
An advanced examination of the human skeletal system and the application of this information in the fields of bioarchaeology, paleoanthropology, and forensic anthropology. This course features hands-on identification and analysis of human skeletal material, with an emphasis on laboratory techniques.

**ANTH 421W (3) Health, Culture, and Disease**
Cross-cultural examination of the healing traditions, health beliefs and the impact of social, economic and political factors on the health of peoples in different cultures around the world and among diverse ethnic groups within culturally plural societies, including the United States.
Variable
WI
Diverse Cultures - Purple
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Prerequisites</th>
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<tbody>
<tr>
<td>ANTH 422</td>
<td>Forensic Anthropology</td>
<td>Pre: ANTH 420</td>
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<tr>
<td>ANTH 423</td>
<td>Evolution and Behavior</td>
<td>Pre: ANTH 101 or ANTH 220 or consent</td>
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<tr>
<td>ANTH 424</td>
<td>Bioarchaeology</td>
<td>Pre: ANTH 101, ANTH 230, or consent</td>
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<tr>
<td>ANTH 425W</td>
<td>Anthropology of Death</td>
<td>Pre: ANTH 101, ANTH 230, or consent</td>
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<tr>
<td>ANTH 430</td>
<td>Peoples and Cultures of Latin America</td>
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<td>ANTH 431</td>
<td>Applied Cultural Research</td>
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<td>Anthropology of Gender</td>
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<td>ANTH 435</td>
<td>The Rise of City-States and Nations</td>
<td>Pre: ANTH 101, ANTH 230, or consent</td>
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<tr>
<td>ANTH 436W</td>
<td>Anthropology of Aging</td>
<td>Pre: ANTH 101, ANTH 230, or ANTH 220, or consent</td>
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<tr>
<td>ANTH 437</td>
<td>Applied Anthropology</td>
<td>Pre: ANTH 101, ANTH 230, or ANTH 220, or consent</td>
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<td>ANTH 438W</td>
<td>Anthropological Theory</td>
<td>Pre: ANTH 101, ANTH 230, or ANTH 220, or consent</td>
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<td>ANTH 439</td>
<td>Qualitative Research Methods</td>
<td>Pre: ANTH 101, ANTH 230, or consent</td>
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<tr>
<td>ANTH 440</td>
<td>Native American Cultures of North America</td>
<td>Pre: ANTH 101, ANTH 230, or consent</td>
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<tr>
<td>ANTH 443W</td>
<td>People and Cultures of East Asia</td>
<td>Pre: ANTH 101, ANTH 230, or consent</td>
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<tr>
<td>ANTH 447</td>
<td>Anthropology of Gender</td>
<td>Pre: ANTH 101, ANTH 230, or AnTH 220, or consent</td>
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<tr>
<td>ANTH 460</td>
<td>Native American Cultures of North America</td>
<td>Pre: ANTH 101, ANTH 230, or consent</td>
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<tr>
<td>ANTH 475</td>
<td>Senior Thesis</td>
<td>Pre: ANTH 475 after completing ANTH 300. The nature of the student’s thesis</td>
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<tr>
<td>ANTH 480</td>
<td>Fieldwork: Archaeology/Ethnology</td>
<td>Pre: Consent, or one of: ANTH 101, ANTH 102, or ANTH 220</td>
</tr>
<tr>
<td>ANTH 485</td>
<td>Topics in Anthropology</td>
<td>Pre: Consent, or one of: ANTH 101, ANTH 102, or ANTH 220</td>
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**ANTH 422 (3) Forensic Anthropology**

This course will acquaint students with the application of human osteological techniques in civil and criminal investigations, including assessment of the recovery scene, determination of identity, and analysis of evidence relating to cause and manner of death.

Pre: ANTH 420

**ANTH 423 (3) Evolution and Behavior**

An examination of the biological basis of human behavior and organization from an evolutionary perspective.

Pre: ANTH 101 or ANTH 220 or consent

**ANTH 424 (3) Bioarchaeology**

Bioarchaeology focuses on the diet, health, and occupations of past populations through the analysis of their skeletal remains. Readings and lab work will promote a practical understanding of the methods used in the discipline.

Variable

**ANTH 425W (3) Anthropology of Death**

The biological and cultural aspects of death, as seen anthropologically, are the focus of this course. Mortuary behavior, ritual, and treatment of the human body will be addressed both temporally and cross-culturally.

Variable

**ANTH 430 (3) Peoples and Cultures of Latin America**

The contemporary peoples and cultures of Mexico and Central and South America. Emphasis is on cultural patterns and contemporary issues of the region.

Pre: ANTH 101, ANTH 230, or consent

**ANTH 431 (3) Applied Cultural Research**

This course introduces concepts and methods of applying socio-cultural understanding to contemporary problems to bring about the empowerment of affected people. Case/field studies and other research methods in social sciences will change with special attention to its affect on disadvantaged groups of people. Students will also design their own applied projects.

Pre: ANTH 101, ANTH 230, or consent; ETHN 100, ETHN 101, or ETHN 150 or consent.

**ANTH 432 (3) Kinship, Marriage and Family**

Kinship is the most basic principle of organization for all human societies. The course analyzes the main theories and methods of studying social organization, and explores cross-cultural variations in kinship, marriage and family systems.

**ANTH 433 (3) Anthropology of Gender**

Major anthropological theories of gender relations are read, discussed, and applied to a variety of contemporary ethnographic case studies.

Pre: ANTH 101, ANTH 230, or consent

**ANTH 435 (3) The Rise of City-States and Nations**

A pivotal moment in cultural development is when city-states and nations arrive to change the structure of a cultural group. This course has varying topics to present each cultural area in its unique context. May be repeated with different topic.

Pre: ANTH 101, ANTH 230, or consent

**ANTH 436W (3) Anthropology of Aging**

An cross-cultural examination of the aging process, status, and treatment of elders around the world.

Pre: ANTH 101, ANTH 230, or ANTH 220, or consent

**ANTH 437 (3) Applied Anthropology**

Examines the practical applications of anthropological knowledge to problem-oriented research and the problems of directed sociocultural change among contemporary populations. Selected projects and case studies are used to illustrate the complexity of applied sociocultural change.

Pre: ANTH 101, ANTH 230 or consent

**ANTH 438W (4) Anthropological Theory**

Examination of the intellectual history of anthropology from its nineteenth century roots to today’s current theoretical trends. Students will learn about the major schools of thought in anthropological theory and practice critical examination of their applications.

Fall

**ANTH 439 (3) Qualitative Research Methods**

The aim of this course is to make students methodologically literate. Students will learn how to develop research designs that rely on qualitative research methods such as participant observation. They will learn how to apply these methods by participating in small scale studies of human behavior. Some quantitative methods will also be discussed. Students will learn critical examination of published data and conclusions.

Pre: ANTH 101, ANTH 220 or consent

**ANTH 440 (3) Native American Cultures of North America**

American Indians adapted to environmental systems in North America with cultures ranging from small groups of foragers to cities supported by intensive agriculture. This course presents a variety of perspectives of this cultural diversity from the Ice Age to the 20th century.

**ANTH 443W (3) People and Cultures of East Asia**

Survey of East Asian cultural region. Cultural diversity, change, and continuity examined in China, Japan and Korea through institutions and cultural settings. Focus includes how modern East Asian societies face internal social changes and their changing international status.

Variable

**ANTH 447 (2) Senior Project**

Nature and topic of the senior project is jointly determined by the student and faculty members. It may involve writing, laboratory work, fieldwork or various combinations. Planning for this project should begin early in the senior year. Students will present completed projects in a public forum. Must be taken twice/different semesters.

Pre: ANTH 491 or ANTH 492 or ANTH 493 or ANTH 494

**ANTH 449 (3) Senior Thesis**

A faculty-supervised, student-designed capstone project for the major. Students will take ANTH 475 after completing ANTH 300. The nature of the student’s thesis will be determined jointly by the student and their advisor. The capstone project is a written thesis involving writing, laboratory work, fieldwork or various combinations. Students must present completed thesis in a public forum.

Pre: ANTH 300

**ANTH 480 (3-6) Fieldwork: Archaeology/Ethnology**

Field experience in which method and theory are learned through participation in an ongoing field project.

Pre: Consent, or one of: ANTH 101, ANTH 102, or ANTH 220

**ANTH 485 (1-3) Topics in Anthropology**

This course allows faculty the flexibility to consider the challenges of new developments in anthropology. Content will vary from one course to the next. Students may take the course, with the permission of the instructor, more than one time.
ANTH 486 (1-3) Workshop
A brief intensive hands-on introduction to an anthropological topic usually as it applies to a particular issue or skill. Topics vary but might include: Understanding that race is not a scientific concept; combating racism and ethnocentrism; participant observation methods; culture shock; cultural diversity and communication; forensics; cultural resource conservation.
Pre: Depends on topic and instructor
Variable

ANTH 491 (1-3) Archaeology Laboratory
An introduction to archaeological laboratory techniques and museological practice, through participation in the various processes involved.
Variable

ANTH 492 (1-3) Biological Anthropology Lab
Guided advanced laboratory work in biological/physical anthropology
Pre: Consent
Variable

ANTH 493 (1-3) Ethnology Lab
Individual projects are done in close coordination with faculty member.
Pre: Consent
Variable

ANTH 494 (1-3) Linguistic Lab
Individual projects are done in close coordination with faculty member.
Variable

ANTH 496 (1-3) Senior Seminar
A special capstone course on current anthropological theory and method to be offered on demand to interested groups of senior majors and minors. The course will emphasize the integration synthesis and summary of the core course material and students’ electives.
Pre: ANTH core courses and/or consent
Variable

ANTH 497 (1-3) Internship
A specialized topic of the students’ choices. Coordination with a faculty member is necessary.
Pre: Consent
Fall, Spring

MUSE 200W (3) Introduction to Museum Studies
Introduces history of museums and philosophical nature of museums, covering types and definitions of museums, discusses contemporary practice in museums, and examines current issues in the profession as we face the future of museums in the twenty-first century.
Variable
WI, GE-5, GE-8

MUSE 497 (1-6) Internship
Arranged internship allows students to have a hands on experience applying theories and methodology from course work in the field to area of interest. Requires coordination with a faculty member.
On-Demand

MUSE 499 (1-6) Individual Study
This course allows pursuit of individual avenues of study that may not be offered in the curriculum and for advanced level pursuit of special projects of research on an independent basis. Requires coordination with a faculty member.
On-Demand

ANTH 488 Portfolio in Professional Leadership
A brief intensive hands-on introduction to an anthropological topic usually as it applies to a particular issue or skill. Topics vary but might include: Understanding that race is not a scientific concept; combating racism and ethnocentrism; participant observation methods; culture shock; cultural diversity and communication; forensics; cultural resource conservation.
Pre: Depends on topic and instructor
Variable

ANTH 498 (1-3) Internship: Teaching Anthropology
Students will work with faculty in the preparation and delivery of course materials in lower division undergraduate courses. Lecture/lab prep, delivery; use of multimedia, leading discussions and exercises. Open to senior majors and minors in good standing.
On Demand

ANTH 499 (1-6) Individual Study
A specialized topic of the students’ choices. Coordination with a faculty member is necessary.
Pre: Consent
Fall, Spring

APPLIED ORGANIZATIONAL STUDIES BS
Degree completion = 120 credits

Major Common Core
AOS 301 Introduction to Applied Organizational Studies
AOS 488 Portfolio in Professional Leadership

Major Unrestricted Electives
Communications in Organizations (choose 12 credits)
Any discipline 300-499 Specific courses arranged with student’s advisory committee.

Critical Thinking and Decision-Making in Organizations (choose 12 credits)
Any discipline 300-499 Specific courses arranged with student’s advisory committee.

Leadership in Organizations (choose 12 credits)
Any discipline 300-499 Specific courses arranged with student’s advisory committee.

Major Emphasis
Area of Concentration (choose 7-8 credits)
Any discipline 300-499 Specific courses are in a single discipline arranged with the student’s advisory committee.

Required Minor: None.
COURSE DESCRIPTIONS

AOS 301 (3) Introduction to Applied Organizational Studies
Topics include world economics and their implications for the labor force, critical and creative thinking, leadership, and portfolio assessment. Required for admission to the Applied Organizational Studies program. Variable

AOS 320 (3) Workshop 1 - Applied Organizational Studies
The focus in this course is on communication within organizations (including virtual environments), workplace engagement in virtual teamwork and the application of critical and creative thinking resulting in organizational innovation. The course also engages students in an exploration of the role of social organizing and the impact of networking on organizational growth and sustainability. Fall, Spring

AOS 380 (3) Workshop 2 - Applied Organizational Studies
The focus in this course is on critical thinking, decision-making, and leadership in contemporary organizational environments. The course also explores the concept of followership and power distribution, and organizational adaptation due to technological and global economic change. Students will also participate in an applied quantitative research project in an approved organization of choice. Fall, Spring, Summer (On-Demand)

AOS 420 (1-3) Advanced Workshop - Applied Organizational Studies
The course focuses on contemporary organizational issues and the concept of change in organizational design and development. Subject matter includes the use of causal thinking and econometric measurement, effectuation and entrepreneurial thinking, and the role of mission and vision. Students will complete a project-based exploration of the financial and resource aspects of return on investment comparing the effectual and causal perspectives on an organizational change. Fall

AOS 488 (1-2) Professional Studies Portfolio
Capstone project in which the student creates a portfolio that demonstrates the student’s achievement in the core competencies of the program. Portfolio to be presented to a committee. Pre: AOS 301 Variable

ART

College of Arts & Humanities
Department of Art
136 Nelson Hall • 507-389-6412
Website: mnsu.edu/artdept/

Chair: Brian Frink
Bradley Coulter, Alisa Eimen, Curt Germundson, James B. Johnson, Mika Laidlaw, Liz Miller, David Morano, David Rogers, Ellen Schofield, Todd Shanafelt, Gina Wenger, Matt Willemsen, Joshua Winkler

Accreditation-Art - The National Association of Schools of Art and Design (NASAD)
The National Council for Accreditation of Teacher Education (NCATE)

The Department of Art program is devoted to the development of concepts, attitudes and skills in the visual arts within a broad university curriculum of liberal arts orientation. There are four objectives: professional training of artists and scholars in chosen areas of specialization, preparation of art educators, elective study for students in all areas of the university, and service to the local communities as a source of cultural enrichment. The Department of Art is accredited by the National Association of Schools of Art and Design.

POLICIES/INFORMATION

A program planning guide for each major is available in the Department of Art office. Students should obtain one to aid in the planning of their program. Advisory services are available.

Drawing and design courses in the art core should be taken during the first year.

Admission to Major is granted by the department. Minimum University admission requirements are:
- a minimum of 32 earned semester credit hours;
- a minimum cumulative GPA of 2.00 (“C”).

In addition to minimum University admission requirements students requesting admission to the art and art education majors must complete the following:
- ART 101 (3) (Preferred) or ART 100 (3)
- ART 260 or ART 261

Students for all majors may be admitted provisionally while these requirements are being satisfied.

Contact the department for application procedures.

P/N Grading Policy. A student majoring in art may take a maximum of one-fourth of the art credits for P/N grades and must comply with the university P/N requirements.

GPA Policy. A 2.0 GPA is required. For admission to and graduation from the BFA program students must have a minimum cumulative GPA of 2.5. Students on academic probation should refer to the College of Arts and Humanities policy regarding required advising.

Studio courses require two scheduled hours of class meeting time under the direct guidance of the instructor and a minimum of one additional hour of work at the discretion of the student for each credit hour earned.

The frequency of course offerings should be verified with your art advisor or the art department office, since some changes caused by unanticipated circumstances may occur.

Art majors and minors must meet with the Art Department chairperson two semesters prior to their anticipated graduation date so that their graduation credits can be evaluated.

All students should check with the central art office concerning the future availability of courses needed for graduation. ART 421 Art Methods Elementary School, should be taken no sooner than the junior year and is required by state licensure before student teaching. The prerequisite for ART 421 is ART 100 or ART 101.

The total number of transfer credits accepted for each major/minor is as follows:
- BFA (24), BS (18), BA (15), and Minor (6).

The Department of Art may request the retention of student work for its permanent instructional and exhibition collection. It reserves the right to photograph students and their work. In addition, the department cannot insure student work, material and equipment or take responsibility for its loss or damage.

Art students with junior or senior standing are encouraged to seek internship opportunities in career-related settings that may include museums, production studios, design firms, and other approved venues. Arrangements are made on an individualized basis. A maximum of 6 credits may be applied toward specialization within BA, BS, or BFA degree programs.

Notations showing the costs of individual courses are included in the schedule of classes. In some cases, student fees are charged for materials used. Verifying such information with the individual instructor is suggested.
See the SECONDARY EDUCATION section for admission requirements to Professional Education and a list of required Professional Education courses. The Bachelor of Science in Art Education major must pass all content area coursework with a grade of “C” or higher.

**ART BA**

Degree completion = 120 credits

The Bachelor of Arts degree in art is a broad-based liberal arts degree that provides a cultural perspective with a strong foundation in studio training.

### Required General Education

<table>
<thead>
<tr>
<th>ART</th>
<th>Course Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>260</td>
<td>Art History Survey I (3)</td>
</tr>
<tr>
<td>261</td>
<td>Art History Survey II (3)</td>
</tr>
</tbody>
</table>

### Major Common Core

<table>
<thead>
<tr>
<th>ART</th>
<th>Course Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>103</td>
<td>Three Dimensional Design (3)</td>
</tr>
<tr>
<td>110</td>
<td>Drawing Foundations (3)</td>
</tr>
<tr>
<td>466</td>
<td>Realism to Postmodernism (3)</td>
</tr>
<tr>
<td>495</td>
<td>Senior Exhibit (0-1)</td>
</tr>
</tbody>
</table>

### Design Foundations (choose 3 credits)

<table>
<thead>
<tr>
<th>ART</th>
<th>Course Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>Elements and Principles of Art (3)</td>
</tr>
<tr>
<td>101</td>
<td>Design Foundations (3)</td>
</tr>
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</table>

### Major Restricted Electives

#### Advanced Art History (choose 3 credits)

<table>
<thead>
<tr>
<th>ART</th>
<th>Course Description</th>
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<tbody>
<tr>
<td>413</td>
<td>Scandinavian Art (3)</td>
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<tr>
<td>416</td>
<td>Art of Africa, the Americas, and the South Pacific (3)</td>
</tr>
<tr>
<td>417</td>
<td>Medieval Art and Architecture (3)</td>
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<td>419</td>
<td>Gender in Art (3)</td>
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<tr>
<td>460</td>
<td>Ancient Art (3)</td>
</tr>
<tr>
<td>462</td>
<td>Renaissance Art (3)</td>
</tr>
<tr>
<td>463</td>
<td>Mannerism to Romanticism (3)</td>
</tr>
<tr>
<td>467</td>
<td>Art of the Islamic World (3)</td>
</tr>
<tr>
<td>468</td>
<td>Design: History and Theory (3)</td>
</tr>
<tr>
<td>469</td>
<td>Asian Art (3)</td>
</tr>
<tr>
<td>492</td>
<td>Art History Seminar (1-6)</td>
</tr>
<tr>
<td>494</td>
<td>Topics (3)</td>
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</table>

#### Intermediate/Advanced Studio (choose 9 credits)

Select 300-400 level courses with the advisor

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<thead>
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<th>ART</th>
<th>Course Description</th>
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</thead>
<tbody>
<tr>
<td>302</td>
<td>Interactive Design Survey (3)</td>
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<td>304</td>
<td>Typography I (3)</td>
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<td>Graphic Design II (3)</td>
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<td>340</td>
<td>Painting (3)</td>
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<td>345</td>
<td>Watercolor (3)</td>
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<td>Intermediate Ceramics (3)</td>
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<td>370</td>
<td>Printmaking: Intermediate Studio (3)</td>
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<td>372</td>
<td>Digital Printmaking (3)</td>
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<tr>
<td>375</td>
<td>Black and White Photography (3)</td>
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<td>Digital Photography (3)</td>
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<td>Sculpture (3)</td>
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<td>Web Design (3)</td>
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<td>Drawing Workshop (3-6)</td>
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<tr>
<td>412</td>
<td>Life Drawing (3)</td>
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<td>420</td>
<td>Graphic Design III (3-6)</td>
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<td>Painting (3-6)</td>
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<tr>
<td>445</td>
<td>Watercolor (3-6)</td>
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<td>Advanced Ceramics (3-6)</td>
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<tr>
<td>470</td>
<td>Printmaking: Advanced Studio (3-6)</td>
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<td>475</td>
<td>Photography (3-6)</td>
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<td>480</td>
<td>Sculpture (3-6)</td>
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</table>

### Studio Electives: Students must complete six 200-level studio courses from five different areas.

#### Graphic Design

<table>
<thead>
<tr>
<th>ART</th>
<th>Course Description</th>
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</thead>
<tbody>
<tr>
<td>202</td>
<td>Introduction to Digital Media (3)</td>
</tr>
<tr>
<td>220</td>
<td>Graphic Design I (3)</td>
</tr>
</tbody>
</table>

**ART BFA**

For admission to the BFA programs students must have a minimum GPA of 2.5 and pass ART 391 Portfolio Review. The Bachelor of Fine Arts degree is a program for those students with professional art aspirations.

**ART BFA - CERAMICS**

Degree completion = 120 credits

### Required General Education

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<tr>
<th>ART</th>
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<tr>
<td>260</td>
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</tr>
<tr>
<td>110</td>
<td>Drawing Foundations (3)</td>
</tr>
<tr>
<td>391</td>
<td>Portfolio Review (0)</td>
</tr>
<tr>
<td>466</td>
<td>Realism to Postmodernism (3)</td>
</tr>
<tr>
<td>495</td>
<td>Senior Exhibit (0-1)</td>
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</table>

#### Intermediate Ceramics (ART 350 must be taken twice before moving to 400 level)

<table>
<thead>
<tr>
<th>ART</th>
<th>Course Description</th>
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<tbody>
<tr>
<td>350</td>
<td>Intermediate Ceramics (3)</td>
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</table>

#### Advanced Ceramics (choose 18 credits)

Course may be repeated

<table>
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<tr>
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<tbody>
<tr>
<td>450</td>
<td>Advanced Ceramics (3-6)</td>
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### Major Restricted Electives

#### Design Foundations (choose 3 credits)

<table>
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<th>ART</th>
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<tr>
<td>100</td>
<td>Elements and Principles of Art (3)</td>
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<td>Design Foundations (3)</td>
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#### Beginning Ceramics (choose 3-6 credits)

<table>
<thead>
<tr>
<th>ART</th>
<th>Course Description</th>
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<tbody>
<tr>
<td>250</td>
<td>Ceramics: Beginning Wheel (3)</td>
</tr>
<tr>
<td>251</td>
<td>Ceramics: Beginning Handbuilding (3)</td>
</tr>
</tbody>
</table>

#### Drawing (choose 3 credits from courses not taken)

<table>
<thead>
<tr>
<th>ART</th>
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</thead>
<tbody>
<tr>
<td>210</td>
<td>Drawing (3)</td>
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<tr>
<td>212</td>
<td>Life Drawing (3)</td>
</tr>
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</table>

#### Advanced Art History (choose 3 credits)

<table>
<thead>
<tr>
<th>ART</th>
<th>Course Description</th>
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</thead>
<tbody>
<tr>
<td>417</td>
<td>Medieval Art and Architecture (3)</td>
</tr>
<tr>
<td>467</td>
<td>Art of the Islamic World (3)</td>
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</table>

**ART continued**
**ART CONTINUED**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ART 417</td>
<td>Medieval Art and Architecture (3)</td>
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</tr>
<tr>
<td>ART 419</td>
<td>Gender in Art (3)</td>
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<td>Mannerism to Romanticism (3)</td>
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<td>ART 468</td>
<td>Design: History and Theory (3)</td>
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<td>Asian Art (3)</td>
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<td></td>
</tr>
<tr>
<td>ART 494</td>
<td>Topics (3)</td>
<td></td>
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</table>

**Advanced Art History/Drawing** (choose 3 credits from courses not taken)

<table>
<thead>
<tr>
<th>Course</th>
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</thead>
<tbody>
<tr>
<td>ART 210</td>
<td>Drawing (3)</td>
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</tr>
<tr>
<td>ART 212</td>
<td>Life Drawing (3)</td>
<td></td>
</tr>
<tr>
<td>ART 310</td>
<td>Drawing (3)</td>
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</tr>
<tr>
<td>ART 410</td>
<td>Drawing Workshop (3-6)</td>
<td></td>
</tr>
<tr>
<td>ART 412</td>
<td>Life Drawing (3)</td>
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<tr>
<td>ART 494</td>
<td>Topics (3)</td>
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</table>

**Approved Elective** (choose 3 credits)

One course from this list may be used to complete 21 credit requirement for Advanced Ceramics. Course used to satisfy credit requirements elsewhere may not be counted here.

<table>
<thead>
<tr>
<th>Course</th>
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</thead>
<tbody>
<tr>
<td>ART 202</td>
<td>Introduction to Digital Media (3)</td>
<td></td>
</tr>
<tr>
<td>ART 210</td>
<td>Drawing (3)</td>
<td></td>
</tr>
<tr>
<td>ART 212</td>
<td>Life Drawing (3)</td>
<td></td>
</tr>
<tr>
<td>ART 220</td>
<td>Graphic Design I (3)</td>
<td></td>
</tr>
<tr>
<td>ART 231</td>
<td>Mixed Media (3)</td>
<td></td>
</tr>
<tr>
<td>ART 240</td>
<td>Painting (3)</td>
<td></td>
</tr>
<tr>
<td>ART 245</td>
<td>Watercolor (3)</td>
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<tr>
<td>ART 250</td>
<td>Ceramics: Beginning Wheel (3)</td>
<td></td>
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<tr>
<td>ART 251</td>
<td>Ceramics: Beginning Handbuilding (3)</td>
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<tr>
<td>ART 270</td>
<td>Printmaking: Beginning Relief/Silkscreen (3)</td>
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<td>ART 271</td>
<td>Printmaking: Beginning Intaglio/Lithography (3)</td>
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<tr>
<td>ART 275</td>
<td>Photography (3)</td>
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<td>ART 280</td>
<td>Sculpture (3)</td>
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<td>ART 302</td>
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<td>Typography I (3)</td>
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<td>ART 320</td>
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<td>ART 370</td>
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<td>ART 372</td>
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<td>ART 470</td>
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<td>ART 480</td>
<td>Sculpture (3-6)</td>
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</table>

**Studio Electives**

Students must complete five 200-level studio courses from five different areas. (choose five courses from those not taken)

**Graphic Design**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 202</td>
<td>Introduction to Digital Media (3)</td>
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<td>ART 220</td>
<td>Graphic Design I (3)</td>
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**Drawing**

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<tr>
<td>ART 210</td>
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**Mixed Media**

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<tbody>
<tr>
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**Painting**

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<td>ART 240</td>
<td>Painting (3)</td>
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**Ceramics**

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<tbody>
<tr>
<td>ART 250</td>
<td>Ceramics: Beginning Wheel (3)</td>
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**Printmaking**

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<tbody>
<tr>
<td>ART 270</td>
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<td>ART 271</td>
<td>Printmaking: Beginning Intaglio/Lithography (3)</td>
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**Photography**

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<tr>
<td>ART 275</td>
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<td>ART 280</td>
<td>Sculpture (3)</td>
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**Second Concentration** (choose six credits from one area)

**Graphic Design**

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<tr>
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<td>Graphic Design II (3)</td>
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</tr>
</tbody>
</table>

**Drawing** (ART 310 may be taken twice)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 310</td>
<td>Drawing (3)</td>
<td></td>
</tr>
<tr>
<td>ART 410</td>
<td>Drawing Workshop (3-6)</td>
<td></td>
</tr>
<tr>
<td>ART 412</td>
<td>Life Drawing (3)</td>
<td></td>
</tr>
</tbody>
</table>

**Painting** (ART 340 may be taken twice)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 340</td>
<td>Painting (3)</td>
<td></td>
</tr>
<tr>
<td>ART 345</td>
<td>Watercolor (3)</td>
<td></td>
</tr>
</tbody>
</table>

**Printmaking** (ART 370 may be taken twice)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 370</td>
<td>Printmaking: Intermediate Studio (3)</td>
<td></td>
</tr>
<tr>
<td>ART 372</td>
<td>Digital Printmaking (3)</td>
<td></td>
</tr>
</tbody>
</table>

**Photography**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 375</td>
<td>Black and White Photography (3)</td>
<td></td>
</tr>
<tr>
<td>ART 377</td>
<td>Digital Photography (3)</td>
<td></td>
</tr>
</tbody>
</table>

**Sculpture** (Art 380 must be taken twice to produce six credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 380</td>
<td>Sculpture (3)</td>
<td></td>
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</tbody>
</table>

**Required Minor: None.**

**ART BFA - DRAWING**

Degree completion = 120 credits

**Required General Education**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 260</td>
<td>Art History Survey I (3)</td>
<td></td>
</tr>
<tr>
<td>ART 261</td>
<td>Art History Survey II (3)</td>
<td></td>
</tr>
</tbody>
</table>

**Major Common Core**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 103</td>
<td>Three Dimensional Design (3)</td>
<td></td>
</tr>
<tr>
<td>ART 110</td>
<td>Drawing Foundations (3)</td>
<td></td>
</tr>
<tr>
<td>ART 391</td>
<td>Portfolio Review (0)</td>
<td></td>
</tr>
<tr>
<td>ART 466</td>
<td>Realism to Postmodernism (3)</td>
<td></td>
</tr>
<tr>
<td>ART 495</td>
<td>Senior Exhibit (0-1)</td>
<td></td>
</tr>
</tbody>
</table>

**Major Restricted Electives**

**Design Foundations** (choose 3 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 100</td>
<td>Elements and Principles of Art (3)</td>
<td></td>
</tr>
<tr>
<td>ART 101</td>
<td>Design Foundations (3)</td>
<td></td>
</tr>
<tr>
<td>ART 210</td>
<td>Drawing (choose 6 credits)</td>
<td></td>
</tr>
</tbody>
</table>
### ART Continued

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ART 212</td>
<td>Life Drawing</td>
<td>(3)</td>
</tr>
<tr>
<td>ART 410</td>
<td>Drawing Workshop</td>
<td>(3-6)</td>
</tr>
<tr>
<td>ART 412</td>
<td>Life Drawing</td>
<td>(3)</td>
</tr>
</tbody>
</table>

**Intermediate Drawing** (choose 6 credits)

- (ART 310 must be taken twice before moving to 400 level)
- ART 310 Drawing (3)
- Advanced Drawing (choose 18 credits) Courses may be repeated.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 410</td>
<td>Drawing Workshop</td>
<td>(3-6)</td>
</tr>
<tr>
<td>ART 412</td>
<td>Life Drawing</td>
<td>(3)</td>
</tr>
</tbody>
</table>

**Advanced Art History** (choose 3 credits)

- ART 417 Medieval Art and Architecture (3)
- ART 467 Art of the Islamic World (3)

**Advanced Art History** (choose 3 credit from courses not taken)

- ART 413 Scandinavian Art (3)
- ART 416 Art of Africa, the Americas, and the South Pacific (3)
- ART 417 Medieval Art and Architecture (3)
- ART 419 Gender in Art (3)
- ART 460 Ancient Art (3)
- ART 462 Renaissance Art (3)
- ART 463 Mannerism to Romanticism (3)
- ART 467 Art of the Islamic World (3)
- ART 468 Design: History and Theory (3)
- ART 469 Asian Art (3)
- ART 492 Art History Seminar (1-6)
- ART 494 Topics (3)

**Advanced Art History/Drawing** (choose 3 credit from courses not taken)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 210</td>
<td>Drawing</td>
<td>(3)</td>
</tr>
<tr>
<td>ART 212</td>
<td>Life Drawing</td>
<td>(3)</td>
</tr>
<tr>
<td>ART 310</td>
<td>Drawing</td>
<td>(3)</td>
</tr>
<tr>
<td>ART 410</td>
<td>Drawing Workshop</td>
<td>(3-6)</td>
</tr>
<tr>
<td>ART 412</td>
<td>Life Drawing</td>
<td>(3)</td>
</tr>
<tr>
<td>ART 413</td>
<td>Scandinavian Art</td>
<td>(3)</td>
</tr>
<tr>
<td>ART 416</td>
<td>Art of Africa, the Americas, and the South Pacific</td>
<td>(3)</td>
</tr>
<tr>
<td>ART 417</td>
<td>Medieval Art and Architecture</td>
<td>(3)</td>
</tr>
<tr>
<td>ART 419</td>
<td>Gender in Art</td>
<td>(3)</td>
</tr>
<tr>
<td>ART 460</td>
<td>Ancient Art</td>
<td>(3)</td>
</tr>
<tr>
<td>ART 462</td>
<td>Renaissance Art</td>
<td>(3)</td>
</tr>
</tbody>
</table>

**Approved Elective** (choose 3 credits)

One course from this list may be used to complete 21 credit requirement for Advanced Drawing. Courses used to satisfy credit requirements elsewhere may not be counted here.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ART 202</td>
<td>Introduction to Digital Media</td>
<td>(3)</td>
</tr>
<tr>
<td>ART 210</td>
<td>Drawing</td>
<td>(3)</td>
</tr>
<tr>
<td>ART 212</td>
<td>Life Drawing</td>
<td>(3)</td>
</tr>
<tr>
<td>ART 220</td>
<td>Graphic Design I</td>
<td>(3)</td>
</tr>
<tr>
<td>ART 231</td>
<td>Mixed Media</td>
<td>(3)</td>
</tr>
<tr>
<td>ART 240</td>
<td>Painting</td>
<td>(3)</td>
</tr>
<tr>
<td>ART 245</td>
<td>Watercolor</td>
<td>(3)</td>
</tr>
<tr>
<td>ART 250</td>
<td>Ceramics: Beginning Wheel</td>
<td>(3)</td>
</tr>
<tr>
<td>ART 251</td>
<td>Ceramics: Beginning Handbuilding</td>
<td>(3)</td>
</tr>
<tr>
<td>ART 270</td>
<td>Printmaking: Beginning Relief/Silkscreen</td>
<td>(3)</td>
</tr>
<tr>
<td>ART 271</td>
<td>Printmaking: Beginning Intaglio/Lithography</td>
<td>(3)</td>
</tr>
<tr>
<td>ART 275</td>
<td>Photography</td>
<td>(3)</td>
</tr>
<tr>
<td>ART 280</td>
<td>Sculpture</td>
<td>(3)</td>
</tr>
</tbody>
</table>

**Second Concentration** (choose six credits from one area)

<table>
<thead>
<tr>
<th>Area</th>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graphic Design</td>
<td>ART 302</td>
<td>Interactive Design Survey</td>
<td>(3)</td>
</tr>
<tr>
<td></td>
<td>ART 304</td>
<td>Typography I</td>
<td>(3)</td>
</tr>
<tr>
<td></td>
<td>ART 320</td>
<td>Graphic Design II</td>
<td>(3)</td>
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<tr>
<td></td>
<td>ART 340</td>
<td>Painting</td>
<td>(3)</td>
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<tr>
<td></td>
<td>ART 345</td>
<td>Watercolor</td>
<td>(3)</td>
</tr>
<tr>
<td></td>
<td>ART 350</td>
<td>Intermediate Ceramics</td>
<td>(3)</td>
</tr>
<tr>
<td></td>
<td>ART 357</td>
<td>Black and White Photography</td>
<td>(3)</td>
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<tr>
<td></td>
<td>ART 372</td>
<td>Digital Printmaking</td>
<td>(3)</td>
</tr>
<tr>
<td></td>
<td>ART 375</td>
<td>Digital Photography</td>
<td>(3)</td>
</tr>
<tr>
<td></td>
<td>ART 380</td>
<td>Sculpture</td>
<td>(3)</td>
</tr>
</tbody>
</table>

**Required Minor: None.**

### ART BFA - GRAPHIC DESIGN

Degree completion = 120 credits

**Required General Education**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 260</td>
<td>Art History Survey I</td>
<td>(3)</td>
</tr>
<tr>
<td>ART 261</td>
<td>Art History Survey II</td>
<td>(3)</td>
</tr>
</tbody>
</table>

**ART 260** Art History Survey I (3)

**ART 261** Art History Survey II (3)

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### ART Continued

#### Major Common Core
- ART 103 Three Dimensional Design (3)
- ART 110 Drawing Foundations (3)
- ART 202 Introduction to Digital Media (3)
- ART 220 Graphic Design I (3)
- ART 302 Interactive Design Survey (3)
- ART 304 Typography I (3)
- ART 320 Graphic Design II (3)
- ART 391 Portfolio Review (0)
- ART 402 Motion Graphics (3)
- ART 404 Typography II (3)
- ART 406 Web Design (3)
- ART 420 Graphic Design III (3)
- ART 466 Realism to Postmodernism (3)
- ART 495 Senior Exhibit (0-1)

#### Major Restricted Electives

**Design Foundations**
- ART 100 Elements and Principles (3)
- ART 101 Design Foundations (3)

**Advanced Art History**
- ART 417 Medieval Art and Architecture (3)
- ART 467 Art of the Islamic World (3)

**Graphic Design**
- ART 420 Graphic Design III (3-6)
- ART 497 Internship (1-6)
- ART 499 Individual Study (1-6)

**Drawing**
- ART 210 Drawing (3)
- ART 212 Life Drawing (3)
- ART 310 Drawing (3)
- ART 410 Drawing Workshop (3-6)
- ART 412 Life Drawing (3)

**Advanced Art History (choose 3 credits from courses not taken)**
- ART 413 Scandinavian Art (3)
- ART 416 Art of Africa, the Americas, and the South Pacific (3)
- ART 417 Medieval Art and Architecture (3)
- ART 460 Ancient Art (3)
- ART 462 Renaissance Art (3)
- ART 463 Mannerism to Romanticism (3)
- ART 467 Art of the Islamic World (3)
- ART 468 Design: History and Theory (3)
- ART 469 Asian Art (3)
- ART 492 Art History Seminar (1-6)
- ART 494 Topics (3)

**Advanced Art History/Drawing**
- ART 210 Drawing (3)
- ART 212 Life Drawing (3)
- ART 410 Drawing Workshop (3-6)
- ART 412 Life Drawing (3)

**Intermediate Studio - Concentration I**
- ART 350 Intermediate Ceramics (3)

**Intermediate Studio - Concentration II**
- ART 370 Printmaking: Intermediate Studio (3)
- ART 372 Digital Printmaking (3)

**Advanced Studio**
- ART 380 Sculpture (3)

**Required Minor:** None.

### ART BFA - INSTALLATION

#### Degree completion = 120 credits

#### Required General Education
- ART 260 Art History Survey I (3)
- ART 261 Art History Survey II (3)

#### Major Common Core
- ART 103 Three Dimensional Design (3)
- ART 110 Drawing Foundations (3)
- ART 202 Introduction to Digital Media (3)
- ART 220 Graphic Design I (3)
- ART 302 Interactive Design Survey (3)
- ART 304 Typography I (3)
- ART 320 Graphic Design II (3)
- ART 391 Portfolio Review (0)
- ART 402 Motion Graphics (3)
- ART 404 Typography II (3)
- ART 406 Web Design (3)
- ART 420 Graphic Design III (3)
- ART 466 Realism to Postmodernism (3)
- ART 495 Senior Exhibit (0-1)

#### Major Restricted Electives

Courses must be taken in each of the following areas to produce a total of 66 credits: Design Foundations, Studio Electives, Advanced Art History, Advanced Art History/Drawing, Intermediate Studio – Concentration I, Intermediate Studio – Concentration II, and Advanced Studio.

**Design Foundations** (choose 3 credits)
- ART 100 Elements and Principles of Art (3)
- ART 101 Design Foundations (3)

**Advanced Art History** (choose 6 credits)
- ART 417 Medieval Art and Architecture (3)
- ART 467 Art of the Islamic World (3)
- ART 468 Design: History and Theory (3)
- ART 469 Asian Art (3)
- ART 492 Art History Seminar (1-6)
- ART 494 Topics (3)

**Studio Electives**

Students must complete four courses from four different areas.

**Drawing**
- ART 210 Drawing (3)
- ART 212 Life Drawing (3)
ART 468 Design: History and Theory (3)
ART 469 Asian Art (3)
ART 492 Art History Seminar (1-6)
ART 494 Topics (3)
Advanced Art History/Drawing (choose 6 credits)

Courses used to satisfy other requirements may not be used to fulfill this requirement.

ART 210 Drawing (3)
ART 212 Life Drawing (3)
ART 310 Drawing (3)
ART 410 Drawing Workshop (3-6)
ART 412 Life Drawing (3)
ART 413 Scandinavian Art (3)
ART 416 Art of Africa, the Americas, and the South Pacific (3)
ART 417 Medieval Art and Architecture (3)
ART 419 Gender in Art (3)
ART 460 Ancient Art (3)
ART 462 Renaissance Art (3)

Intermediate Studio: Concentration I (choose 6 credits)
ART 385 must be taken twice to produce 6 credits.
ART 385 Intermediate Installation (3)

Advanced Studio (choose 21 credits)
18 of the credits must be in primary concentration--ART 485 must be repeated to produce the necessary credits. 3 of the credits may be an elective approved by advisor.

Courses used to satisfy other requirements may not be used to fulfill this requirement.

ART 202 Introduction to Digital Media (3)
ART 204 Digital Imaging (3)
ART 210 Drawing (3)
ART 212 Life Drawing (3)
ART 220 Graphic Design I (3)
ART 231 Mixed Media (3)
ART 240 Painting (3)
ART 245 Watercolor (3)
ART 250 Ceramics: Beginning Wheel (3)
ART 251 Ceramics: Beginning Handbuilding (3)
ART 270 Printmaking: Beginning Intaglio/Relief (3)
ART 275 Photography (3)
ART 280 Sculpture (3)
ART 285 Introduction to Installation (3)

Intermediate Studio - Concentration II
(Select 6 credits from one area that is not your first concentration)

Graphic Design
ART 302 Interactive Design Survey (3)
ART 304 Typography I (3)
ART 320 Graphic Design II (3)

Drawing
(Students who select this area must take ART 310 twice to produce 6 credits)
ART 310 Drawing (3)
Painting
ART 340 Painting (3)
ART 345 Watercolor (3)

Printmaking
ART 370 Printmaking: Intermediate Studio (3)
ART 372 Digital Printmaking (3)

Photography
ART 375 Black and White Photography (3)
ART 377 Digital Photography (3)

Sculpture
(Students who select this area must take ART 380 twice to produce 6 credits)
ART 380 Sculpture (3)

ART BFA - PAINTING

Required General Education
ART 260 Art History Survey I (3)
ART 261 Art History Survey II (3)

Major Common Core
ART 103 Three Dimensional Design (3)
ART 110 Drawing Foundations (3)
ART 391 Portfolio Review (0)
ART 466 Realism to Postmodernism (3)
ART 495 Senior Exhibit (0-1)

Major Restricted Electives
Design Foundations (choose 3 credits)
ART 100 Elements and Principles of Art (3)
ART 101 Design Foundations (3)
Drawing (choose 3 credits from courses not taken)
ART 210 Drawing (3)
ART 212 Life Drawing (3)
ART 310 Drawing (3)
ART 410 Drawing Workshop (3-6)
ART 412 Life Drawing (3)

Studio Electives. Students must complete (6) 200-level courses from 5 different areas. Courses used to satisfy other requirements may not be used to fulfill this requirement.

Area 1 - Graphic Design
ART 202 Introduction to Digital Media (3)
ART 220 Graphic Design I (3)
ART 481 Drawing (3)
ART 482 Life Drawing (3)
ART 483 Intermediate Installation (3)
ART 485 Advanced Installation (3-6)

ART BFA - PAINTING

Required General Education
ART 260 Art History Survey I (3)
ART 261 Art History Survey II (3)

Major Common Core
ART 103 Three Dimensional Design (3)
ART 110 Drawing Foundations (3)
ART 391 Portfolio Review (0)
ART 466 Realism to Postmodernism (3)
ART 495 Senior Exhibit (0-1)

Major Restricted Electives
Design Foundations (choose 3 credits)
ART 100 Elements and Principles of Art (3)
ART 101 Design Foundations (3)
Drawing (choose 3 credits from courses not taken)
ART 210 Drawing (3)
ART 212 Life Drawing (3)
ART 310 Drawing (3)
ART 410 Drawing Workshop (3-6)
ART 412 Life Drawing (3)
Art Continuation

Painting (choose 3 credits)
- ART 240 Painting (3)
- ART 245 Watercolor (3)

Intermediate Painting (choose 6 credits) ART 340 may be taken twice.
- ART 340 Painting (3)
- ART 345 Watercolor (3)

Advanced Painting (choose 18 credits) Courses may be repeated.
- ART 440 Painting (3-6)
- ART 445 Watercolor (3-6)

Advanced Art History (choose 3 credits)
- ART 417 Medieval Art and Architecture (3)
- ART 467 Art of the Islamic World (3)
- ART 468 Design: History and Theory (3)
- ART 469 Asian Art (3)
- ART 492 Art History Seminar (1-6)
- ART 494 Topics (3)

Advanced Art History/Drawing (choose 3 credit)
Choose courses not counted for other requirements.
- ART 210 Drawing (3)
- ART 212 Life Drawing (3)
- ART 310 Drawing Workshop (3-6)
- ART 412 Life Drawing (3)
- ART 410 Drawing Workshop (3-6)

Approved Elective (choose 3 credits)
One course from this list may be used to complete 21 credit requirement for Advanced Painting. Courses used to satisfy credit requirements elsewhere may not be counted here.
- ART 202 Introduction to Digital Media (3)
- ART 210 Drawing (3)
- ART 212 Life Drawing (3)
- ART 220 Graphic Design I (3)
- ART 231 Mixed Media (3)
- ART 240 Painting (3)
- ART 245 Watercolor (3)
- ART 250 Ceramics: Beginning Wheel (3)
- ART 251 Ceramics: Beginning Handbuilding (3)
- ART 270 Printmaking: Beginning Relief/Silkscreen (3)
- ART 271 Printmaking: Beginning Intaglio/Lithography (3)
- ART 275 Photography (3)
- ART 280 Sculpture (3)
- ART 302 Interactive Design Survey (3)
- ART 304 Typographic Design (3)
- ART 310 Drawing (3)
- ART 320 Graphic Design II (3)
- ART 340 Painting (3)
- ART 345 Watercolor (3)
- ART 350 Intermediate Ceramics (3)
- ART 370 Printmaking: Intermediate Studio (3)

ArT 372 Digital Printmaking (3)
ArT 375 Black and White Photography (3)
ArT 377 Digital Photography (3)
ArT 380 Sculpture (3)
ArT 402 Motion Graphics (3)
ArT 404 Typography II (3)
ArT 406 Web Design (3)
ArT 410 Drawing Workshop (3-6)
ArT 412 Life Drawing (3)
ArT 420 Graphic Design III (3-6)
ArT 440 Painting (3-6)
ArT 445 Watercolor (3-6)
ArT 450 Advanced Ceramics (3-6)
ArT 470 Printmaking: Advanced Studio (3-6)
ArT 475 Photography (3-6)
ArT 480 Sculpture (3-6)

Studio Electives
Students must complete five 200-level studio courses from five different areas. Choose five courses from those not taken.

Graphic Design
- ART 202 Introduction to Digital Media (3)
- ART 220 Graphic Design I (3)
- ART 410 Drawing Workshop (3-6)
- ART 412 Life Drawing (3)

Drawing
- ART 440 Painting (3-6)
- ART 445 Watercolor (3-6)

Ceramics
- ART 250 Ceramics: Beginning Wheel (3)
- ART 251 Ceramics: Beginning Handbuilding (3)

Printmaking
- ART 270 Printmaking: Beginning Relief/Silkscreen (3)
- ART 271 Printmaking: Beginning Intaglio/Lithography (3)

Photography
- ART 275 Photography (3)
- ART 380 Sculpture (3)

Second Concentration (choose six credits from one area)

Graphic Design
- ART 304 Typographic Design (3)
- ART 320 Graphic Design II (3)
- ART 310 Drawing (3)
- ART 401 Drawing Workshop (3-6)
- ART 412 Life Drawing (3)
- ART 440 Painting (3-6)
- ART 445 Watercolor (3-6)
- ART 350 Intermediate Ceramics (3)
- ART 370 Printmaking: Intermediate Studio (3)
- ART 377 Digital Photography (3)
- ART 375 Black and White Photography (3)
- ART 380 Sculpture (3)

Required Minors: None.

ArT FBA - Photography

Degree completion = 120 credits

Required General Education
- ART 260 Art History Survey I (3)
- ART 261 Art History Survey II (3)
ART 103 Three Dimensional Design (3)
ART 110 Drawing Foundations (3)
ART 275 Photography (3)
ART 391 Portfolio Review (0)
ART 466 Realism to Postmodernism (3)
ART 495 Senior Exhibit (0-1)

Major Common Core

ART 100 Elements and Principles of Art (3)
ART 101 Design Foundations (3)
ART 210 Drawing (3)
ART 212 Life Drawing (3)
ART 310 Drawing (3)
ART 410 Drawing Workshop (3-6)
ART 412 Life Drawing (3)

Intermediate Photography (choose 6 credits)
ART 375 Black and White Photography (3)
ART 377 Digital Photography (3)

Advanced Photography (choose 18 credits) Course may be repeated.
ART 475 Photography (3-6)
ART 477 Digital Printmaking (3)

Advanced Art History (choose 3 credits)
ART 417 Medieval Art and Architecture (3)
ART 467 Art of the Islamic World (3)
ART 468 Design: History and Theory (3)
ART 469 Asian Art (3)
ART 492 Art History Seminar (1-6)
ART 494 Topics (3)

Advanced Art History/Drawing (choose 3 credits)
(choose courses not counted for other requirements)
ART 210 Drawing (3)
ART 212 Life Drawing (3)
ART 410 Drawing Workshop (3-6)
ART 412 Life Drawing (3)
ART 417 Medieval Art and Architecture (3)
ART 419 Gender in Art (3)
ART 420 Graphic Design III (3-6)
ART 440 Painting (3-6)
ART 445 Watercolor (3-6)
ART 450 Advanced Ceramics (3-6)
ART 470 Printmaking: Advanced Studio (3-6)
ART 475 Photography (3-6)
ART 480 Sculpture (3-6)

Approved Elective (choose 3 credits)
One course from this list may be used to complete 21 credit requirement for Advanced Photography. Courses used to satisfy credit requirements elsewhere may not be counted here.
ART 202 Introduction to Digital Media (3)
ART 210 Drawing (3)
ART 212 Life Drawing (3)
ART 220 Graphic Design I (3)
ART 231 Mixed Media (3)
ART 240 Painting (3)
ART 245 Watercolor (3)
ART 250 Ceramics: Beginning Wheel (3)
ART 251 Ceramics: Beginning Handbuilding (3)
ART 270 Printmaking: Beginning Relief/Silkscreen (3)
ART 271 Printmaking: Beginning Intaglio/Lithography (3)
ART 275 Photography (3)
ART 280 Sculpture (3)
ART 302 Interactive Design Survey (3)
ART 304 Typography I (3)
ART 310 Drawing (3)
ART 320 Graphic Design II (3)
ART 340 Painting (3)
ART 345 Watercolor (3)
ART 350 Intermediate Ceramics (3)
ART 370 Printmaking: Intermediate Studio (3)
ART 372 Digital Printmaking (3)
ART 375 Black and White Photography (3)
ART 377 Digital Photography (3)
ART 380 Sculpture (3)
ART 402 Motion Graphics (3)
ART 404 Typography II (3)
ART 406 Web Design (3)
ART 410 Drawing Workshop (3-6)
ART 412 Life Drawing (3)
ART 420 Graphic Design III (3-6)
ART 440 Painting (3-6)
ART 445 Watercolor (3-6)
ART 450 Advanced Ceramics (3-6)
ART 470 Printmaking: Advanced Studio (3-6)
ART 475 Photography (3-6)
ART 480 Sculpture (3-6)

Studio Electives
Students must complete five 200-level studio courses from five different areas.
(choose five courses from those not taken)

Graphic Design
ART 202 Introduction to Digital Media (3)
ART 220 Graphic Design I (3)

Drawing
ART 210 Drawing (3)
ART 212 Life Drawing (3)

Painting
ART 240 Painting (3)
ART 245 Watercolor (3)

Ceramics
ART 250 Ceramics: Beginning Wheel (3)
ART 251 Ceramics: Beginning Handbuilding (3)

Printmaking
ART 270 Printmaking: Beginning Relief/Silkscreen (3)
ART 271 Printmaking: Beginning Intaglio/Lithography (3)

Sculpture
ART 280 Sculpture (3)

Second Concentration (choose six credits from one area)

Graphic Design
ART 302 Interactive Design Survey (3)
ART 304 Typography I (3)
ART 320 Graphic Design II (3)

Drawing (ART 310 may be taken twice)
ART 310 Drawing (3)
ART 410 Drawing Workshop (3-6)
ART 412 Life Drawing (3)

Painting (ART 340 may be taken twice)
ART 340 Painting (3)
ART 345 Watercolor (3)

Ceramics (ART 350 must be taken twice to produce 6 credits)
ART 350 Intermediate Ceramics (3)
Printmaking (ART 370 may be taken twice)
ART 370 Printmaking: Intermediate Studio (3)
ART 372 Digital Printmaking (3)
Sculpture (ART 380 must be taken twice to produce six credits)
ART 380 Sculpture (3)

Required Minor: None.

**ART BFA - PRINTMAKING**
Degree completion = 120 credits

**Required General Education**
ART 260 Art History Survey I (3)
ART 261 Art History Survey II (3)

**Major Common Core**
ART 103 Three Dimensional Design (3)
ART 110 Drawing Foundations (3)
ART 391 Portfolio Review (0)
ART 466 Realism to Postmodernism (3)
ART 495 Senior Exhibit (0-1)

**Major Restricted Electives**

- **Design Foundations** (choose 3 credits)
  ART 100 Elements and Principles of Art (3)
  ART 101 Design Foundations (3)

- **Drawing** (choose 3 credits from courses not taken)
  ART 210 Drawing (3)
  ART 212 Life Drawing (3)
  ART 310 Drawing (3)
  ART 410 Drawing Workshop (3-6)
  ART 412 Life Drawing (3)

- **Printmaking** (choose 3 credits)
  ART 270 Printmaking: Beginning Relief/Silkscreen (3)
  ART 271 Printmaking: Beginning Intaglio/Lithography (3)
  Intermediate Printmaking (choose 6 credits) (ART 370 may be taken twice)
  ART 370 Printmaking: Intermediate Studio (3)
  ART 372 Digital Printmaking (3)

Advanced Printmaking (choose 18 credits) Course may be repeated.

**Advanced Art History** (choose 3 credits)
ART 417 Medieval Art and Architecture (3)
ART 467 Art of the Islamic World (3)
Advanced Art History (choose 3 credits from courses not taken)
ART 413 Scandinavian Art (3)
ART 416 Art of Africa, the Americas, and the South Pacific (3)
ART 417 Medieval Art and Architecture (3)
ART 419 Gender in Art (3)
ART 460 Ancient Art (3)
ART 462 Renaissance Art (3)
ART 463 Mannerism to Romanticism (3)
ART 467 Art of the Islamic World (3)
ART 468 Design: History and Theory (3)
ART 469 Asian Art (3)
ART 492 Art History Seminar (1-6)
ART 494 Topics (3)

**Approved Elective** (choose 3 credits)
One course from this list may be used to complete 21 credit requirement for Advanced Printmaking. Courses used to satisfy credit requirements elsewhere may not be counted here.
ART 202 Introduction to Digital Media (3)
ART 210 Drawing (3)
ART 212 Life Drawing (3)
ART 220 Graphic Design I (3)
ART 231 Mixed Media (3)
ART 240 Painting (3)
ART 245 Watercolor (3)
ART 250 Ceramics: Beginning Wheel (3)
ART 251 Ceramics: Beginning Handbuilding (3)
ART 270 Printmaking: Beginning Relief/Silkscreen (3)
ART 271 Printmaking: Beginning Intaglio/Lithography (3)
ART 275 Photography (3)
ART 280 Sculpture (3)
ART 302 Interactive Design Survey (3)
ART 304 Typography I (3)
ART 310 Drawing (3)
ART 320 Graphic Design II (3)
ART 340 Painting (3)
ART 345 Watercolor (3)
ART 350 Intermediate Ceramics (3)
ART 370 Printmaking: Intermediate Studio (3)
ART 372 Digital Printmaking (3)
ART 375 Black and White Photography (3)
ART 377 Digital Photography (3)
ART 380 Sculpture (3)
ART 402 Motion Graphics (3)
ART 404 Typography II (3)
ART 406 Web Design (3)
ART 410 Drawing Workshop (3-6)
ART 412 Life Drawing (3)
ART 420 Graphic Design III (3-6)
ART 440 Painting (3-6)
ART 445 Watercolor (3-6)
ART 450 Advanced Ceramics (3-6)
ART 470 Printmaking: Advanced Studio (3-6)
ART 475 Photography (3-6)
ART 480 Sculpture (3-6)

**Studio Electives**
Students must complete five 200-level studio courses from five different areas.
(choose five courses from those not taken)

- **Graphic Design**
  ART 202 Introduction to Digital Media (3)
  ART 220 Graphic Design I (3)

- **Drawing**
  ART 210 Drawing (3)
  ART 212 Life Drawing (3)

- **Mixed Media**
  ART 231 Mixed Media (3)

- **Painting**
  ART 240 Painting (3)
  ART 245 Watercolor (3)

- **Ceramics**
  ART 250 Ceramics: Beginning Wheel (3)
  ART 251 Ceramics: Beginning Handbuilding (3)

- **Printmaking**
  ART 270 Printmaking: Beginning Relief/Silkscreen (3)
  ART 271 Printmaking: Beginning Intaglio/Lithography (3)
Photography
ART 275 Photography (3)

Sculpture
ART 280 Sculpture (3)

Second Concentration (choose six credits from one area)

Graphic Design
ART 304 Typography I (3)
ART 320 Graphic Design II (3)
ART 332 Art History Seminar (1-6)
ART 494 Topics (3)

Advanced Art History/Drawing (choose 3 credit from courses not taken)
ART 210 Drawing (3)
ART 212 Life Drawing (3)
ART 310 Drawing (3)
ART 410 Drawing Workshop (3-6)
ART 412 Life Drawing (3)
ART 413 Scandinavian Art (3)
ART 416 Art of Africa, the Americas, and the South Pacific (3)
ART 417 Medieval Art and Architecture (3)
ART 419 Gender in Art (3)
ART 460 Ancient Art (3)
ART 462 Renaissance Art (3)
ART 463 Mannerism to Romanticism (3)
ART 467 Art of the Islamic World (3)
ART 468 Design: History and Theory (3)
ART 469 Asian Art (3)
ART 492 Art History Seminar (1-6)
ART 494 Topics (3)

Approved Elective (choose 0-3 credits)
One course from this list may be used to complete 21 credit requirement for Advanced Sculpture. Courses used to satisfy credit requirements elsewhere may not be counted here.
ART 202 Introduction to Digital Media (3)
ART 210 Drawing (3)
ART 212 Life Drawing (3)
ART 220 Graphic Design I (3)
ART 231 Mixed Media (3)
ART 240 Painting (3)
ART 245 Watercolor (3)
ART 250 Ceramics: Beginning Wheel (3)
ART 251 Ceramics: Beginning Handbuilding (3)
ART 270 Printmaking: Beginning Relief/Silkscreen (3)
ART 271 Printmaking: Beginning Intaglio/Lithography (3)
ART 275 Photography (3)
ART 302 Interactive Design Survey (3)
ART 304 Typography I (3)
ART 310 Drawing (3)
ART 320 Graphic Design II (3)
ART 340 Painting (3)
ART 345 Watercolor (3)
ART 350 Intermediate Ceramics (3)
ART 370 Printmaking: Intermediate Studio (3)
ART 372 Digital Printmaking (3)
ART 375 Black and White Photography (3)
ART 377 Digital Photograph (3)
ART 380 Sculpture (3)
ART 402 Motion Graphics (3)
ART 404 Typography II (3)
ART 406 Web Design (3)
ART 410 Drawing Workshop (3-6)
ART 412 Life Drawing (3)
ART 420 Graphic Design III (3-6)
ART 440 Painting (3-6)
ART 445 Watercolor (3-6)
ART 450 Advanced Ceramics (3-6)
ART 470 Printmaking: Advanced Studio (3-6)
ART 475 Photography (3-6)
ART 480 Sculpture (3-6)

Studio Electives
(choose five courses from at least four different areas)

Graphic Design
ART 202 Introduction to Digital Media (3)
ART 220 Graphic Design I (3)
ART 221 Drawing (3)
ART 212 Life Drawing (3)
ART 210 Drawing (3)
### ART CONTINUED

<table>
<thead>
<tr>
<th>Mixed Media</th>
<th>Painting</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ART 231</strong> Mixed Media (3)</td>
<td><strong>ART 240</strong> Painting (3)</td>
</tr>
<tr>
<td><strong>ART 245</strong> Watercolor (3)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ceramics</th>
<th>Printmaking</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ART 250</strong> Ceramics: Beginning Wheel (3)</td>
<td><strong>ART 270</strong> Printmaking: Beginning Relief/Silkscreen (3)</td>
</tr>
<tr>
<td><strong>ART 251</strong> Ceramics: Beginning Handbuilding (3)</td>
<td><strong>ART 271</strong> Printmaking: Beginning Intaglio/Lithography (3)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Photography</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ART 275</strong> Photography (3)</td>
<td></td>
</tr>
</tbody>
</table>

**Second Concentration** (choose six credits from one area)

<table>
<thead>
<tr>
<th>Graphic Design</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ART 302</strong> Interactive Design Survey (3)</td>
<td></td>
</tr>
<tr>
<td><strong>ART 304</strong> Typography I (3)</td>
<td></td>
</tr>
<tr>
<td><strong>ART 320</strong> Graphic Design II (3)</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Drawing</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ART 310</strong> Drawing (3)</td>
<td></td>
</tr>
<tr>
<td><strong>ART 410</strong> Drawing Workshop (3-6)</td>
<td></td>
</tr>
<tr>
<td><strong>ART 412</strong> Life Drawing (3)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Painting</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ART 340</strong> Painting (3)</td>
<td></td>
</tr>
<tr>
<td><strong>ART 345</strong> Watercolor (3)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ceramics</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ART 350</strong> Intermediate Ceramics (3)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Printmaking</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ART 370</strong> Printmaking (ART 370 may be taken twice)</td>
<td></td>
</tr>
<tr>
<td><strong>ART 372</strong> Digital Printmaking (3)</td>
<td></td>
</tr>
</tbody>
</table>

| **ART 375** Black and White Photography (3) |                           |
| **ART 377** Digital Photography (3)        |                           |

**Required Minor: None.**

### ART STUDIO MINOR

**Required for Minor**

| **ART 100** Elements and Principles of Art (3) OR | **ART 101** Design Foundations (3) AND |
| **ART 110** Drawing Foundations (3)              |                                           |

Select 12 credits of art studio electives in consultation with an art advisor:

| ART xxx | ART xxx | ART xxx | ART xxx |

### ART HISTORY BA

Degree completion = 120 credits

The Bachelor of Arts degree in Art History is a thorough liberal arts degree that provides students with a general knowledge of major artists, styles, and monuments of both Western and non-Western art. Writing and reading assignments within the courses and the Art History Senior Thesis will further critical thinking, analysis, and knowledge of theory and methods. Knowledge of at least one foreign language will enable students to use primary source materials in their further career. The core requirements in studio will give students insights into the creative process.

**Required General Education**

| **ART 260** | Art History Survey I (3) |
| **ART 261** | Art History Survey II (3) |

**Major Common Core**

| **ART 391** | Portfolio Review (0) |
| **ART 417** | Medieval Art and Architecture (3) |
| **ART 460** | Ancient Art (3) |
| **ART 466** | Realism to Postmodernism (3) |
| **ART 496** | Art History Senior Thesis (1) |

| Renaissance and Baroque (choose 3 credits) | **ART 462** Renaissance Art (3) |
| **ART 463** | Mannerism to Romanticism (3) |

| Non-Western (choose 3 credits) | **ART 416** Art of Africa, the Americas, and the South Pacific (3) |
| **ART 467** | Art of the Islamic World (3) |
| **ART 469** | Asian Art (3) |

| Design/Drawing Requirement (choose 3 credits) (ART 101 preferred) | **ART 101** Design Foundations (preferred) (3) |
| **ART 100** | Elements and Principles of Art (3) |

**Major Restricted Electives** (choose 9 credits)

Choose 3 courses from the Major Common Core not previously taken and/or from the following:

| **ART 413** | Scandinavian Art (3) |
| **ART 419** | Gender in Art (3) |
| **ART 468** | Design: History and Theory (3) |
| **ART 492** | Art History Seminar (1-6) |
| **ART 494** | Topics (3) |

**Major Unrestricted Electives**

Studio Electives (choose 6 credits)

(choose 2 courses from the following)

| **ART 103** | Three Dimensional Design (3) |
| **ART 110** | Drawing Foundations (3) |
| **ART 202** | Introduction to Digital Media (3) |
| **ART 210** | Drawing (3) |
| **ART 212** | Life Drawing (3) |
| **ART 220** | Graphic Design I (3) |
| **ART 231** | Mixed Media (3) |
| **ART 240** | Painting (3) |
| **ART 245** | Watercolor (3) |
| **ART 250** | Ceramics: Beginning Wheel (3) |
| **ART 251** | Ceramics: Beginning Handbuilding (3) |
| **ART 270** | Printmaking: Beginning Silkscreen and Lithography (3) |
| **ART 271** | Printmaking: Beginning Intaglio/Relief (3) |
| **ART 275** | Photography (3) |
| **ART 280** | Sculpture (3) |

### Other Graduation Requirements

**Required for Bachelor of Arts (BA) degree ONLY - Language (8 credits)**

**Required Minor: Yes, Any.**

### ART HISTORY MINOR

NOTE: Students who declare a major in art may choose to minor in art history; however only 50% of the art history courses selected to count toward the major in art may also count toward the minor in art history.

**Required for Minor**

| **ART 260** | Art History Survey I (3) |
| **ART 261** | Art History Survey II (3) |

**Required Minor Electives**

(choose 4 courses from the following)

| **ART 413** | Scandinavian Art (3) |
| **ART 416** | Art of Africa, the Americas, and the South Pacific (3) |
| **ART 419** | Gender in Art (3) |
| **ART 460** | Ancient Art (3) |
| **ART 462** | Renaissance Art (3) |
| **ART 463** | Mannerism to Romanticism (3) |
| **ART 466** | Realism to Postmodernism (3) |
| **ART 468** | Design: History and Theory (3) |
| **ART 469** | Asian Art (3) |
| **ART 492** | Art History Seminar (1-6) |
| **ART 494** | Topics (3) |
**ART BS, TEACHING**

Degree completion = 120 credits

The Bachelor of Science degree in Art Education prepares students for careers as art educators teaching at the elementary and secondary levels.

**Required General Education**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 260</td>
<td>Art History Survey I (3)</td>
</tr>
<tr>
<td>ART 261</td>
<td>Art History Survey II (3)</td>
</tr>
<tr>
<td>KSP 220W</td>
<td>Human Relations in a Multicultural Society (3)</td>
</tr>
</tbody>
</table>

**Major Common Core**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 103</td>
<td>Three-Dimensional Design (3)</td>
</tr>
<tr>
<td>ART 110</td>
<td>Drawing Foundations (3)</td>
</tr>
<tr>
<td>ART 421</td>
<td>Art Methods Elementary School (2)</td>
</tr>
<tr>
<td>ART 426</td>
<td>Art Methods Secondary School (3)</td>
</tr>
<tr>
<td>ART 429</td>
<td>Art Education Seminar (1)</td>
</tr>
<tr>
<td>ART 466</td>
<td>Realism to Postmodernism (3)</td>
</tr>
<tr>
<td>ART 495</td>
<td>Senior Exhibit (0-1)</td>
</tr>
<tr>
<td>KSP 475</td>
<td>The Social Context of Learning (1)</td>
</tr>
<tr>
<td>KSP 476</td>
<td>K-12 Student Teaching (11)</td>
</tr>
</tbody>
</table>

**Design Foundations** (choose 3 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 100</td>
<td>Elements and Principles of Art (3)</td>
</tr>
<tr>
<td>ART 101</td>
<td>Design Foundations (3)</td>
</tr>
<tr>
<td>ART 424</td>
<td>Art Education for the Exceptional Child (3)</td>
</tr>
<tr>
<td>ART 428</td>
<td>Teaching Art: Historical and Contemporary Topics (3)</td>
</tr>
</tbody>
</table>

**Major Restricted Electives**

**STUDIO CONCENTRATION** (choose 12 credits)

Select a minimum of 12 studio credits in your specialization area at the 300/400 level in consultation with the art advisor. Certain 300-level courses need to be taken twice before proceeding to the 400-level. Consult your advisor.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 302</td>
<td>Interactive Design Survey (3)</td>
</tr>
<tr>
<td>ART 304</td>
<td>Typography I (3)</td>
</tr>
<tr>
<td>ART 310</td>
<td>Drawing (3)</td>
</tr>
<tr>
<td>ART 320</td>
<td>Graphic Design II (3)</td>
</tr>
<tr>
<td>ART 340</td>
<td>Painting (3)</td>
</tr>
<tr>
<td>ART 345</td>
<td>Watercolor (3)</td>
</tr>
<tr>
<td>ART 350</td>
<td>Intermediate Ceramics (3)</td>
</tr>
<tr>
<td>ART 370</td>
<td>Printmaking: Intermediate Studio (3)</td>
</tr>
<tr>
<td>ART 372</td>
<td>Digital Printmaking (3)</td>
</tr>
<tr>
<td>ART 375</td>
<td>Black and White Photography (3)</td>
</tr>
<tr>
<td>ART 377</td>
<td>Digital Photography (3)</td>
</tr>
<tr>
<td>ART 380</td>
<td>Sculpture (3)</td>
</tr>
<tr>
<td>ART 402</td>
<td>Motion Graphics (3)</td>
</tr>
<tr>
<td>ART 404</td>
<td>Typography II (3)</td>
</tr>
<tr>
<td>ART 406</td>
<td>Web Design (3)</td>
</tr>
<tr>
<td>ART 410</td>
<td>Drawing Workshop (3-6)</td>
</tr>
<tr>
<td>ART 412</td>
<td>Life Drawing (3)</td>
</tr>
<tr>
<td>ART 420</td>
<td>Graphic Design III (3-6)</td>
</tr>
<tr>
<td>ART 440</td>
<td>Painting (3-6)</td>
</tr>
<tr>
<td>ART 445</td>
<td>Watercolor (3-6)</td>
</tr>
<tr>
<td>ART 450</td>
<td>Advanced Ceramics (3-6)</td>
</tr>
<tr>
<td>ART 470</td>
<td>Printmaking: Advanced Studio (3-6)</td>
</tr>
<tr>
<td>ART 475</td>
<td>Photography (3-6)</td>
</tr>
<tr>
<td>ART 480</td>
<td>Sculpture (3-6)</td>
</tr>
</tbody>
</table>

**Studio Electives:** Students must complete six 200-level studio courses from five different areas.

- **Graphic Design**
  - ART 202 Introduction to Digital Media (3)
  - ART 220 Graphic Design I (3)
  - ART 210 Drawing (3)
  - ART 212 Life Drawing (3)
  - ART 231 Mixed Media (3)

- **Painting**
  - ART 240 Painting (3)
  - ART 245 Watercolor (3)

- **Ceramics**
  - ART 250 Ceramics: Beginning Wheel (3)
  - ART 251 Ceramics: Beginning Handbuilding (3)

- **Printmaking**
  - ART 270 Printmaking: Beginning Relief/Silkscreen (3)
  - ART 271 Printmaking: Beginning Intaglio/Lithography (3)

- **Photography**
  - ART 275 Photography (3)

- **Sculpture**
  - ART 280 Sculpture (3)

**Required Minor:** None.

**COURSE DESCRIPTIONS**

**ART 100 (3) Elements and Principles of Art**

2-D visual problem solving and art-making strategies using the elements and principles of design. For elementary education majors and general education. Fall, Spring

GE-6

**ART 101 (3) Design Foundations**

For art, art history and art education majors. Fall, Spring

**ART 103 (3) Three-Dimensional Design**

An introduction to concepts and processes related to the visual and physical organization of three-dimensional form and space. Fall, Spring

**ART 110 (3) Drawing Foundations**

Introduction to traditional drawing techniques and concepts. Fall, Spring

**ART 160 (3) Introduction to Visual Culture**

Introduction to Western and non-Western visual arts and the variety of methods by which art is understood. These may include art appreciation, art criticism, the history of art, popular culture, and aesthetic awareness. Fall, Spring

GE-6, GE-8

Diverse Cultures - Purple

**ART 202 (3) Introduction to Digital Media**

This graphic design course is an introduction to digital media technology as a creative tool for the development of visual expression. The course is taught using the Mac OS and explores vector and bitmap image making. Pre: ART 100 or ART 101, ART 110

**ART 210 (3) Drawing**

Continued exploration of drawing techniques and concepts. Pre: ART 110

Fall, Spring

**ART 212 (3) Life Drawing**

Experience in drawing from the human figure. Pre: ART 110

Fall, Spring

**ART 220 (3) Graphic Design I**

This course explores the basic principles of graphic design. Emphasis is placed on developing an awareness and effective use of type, image, and symbol. Students focus on the design process as a way to develop and refine design solutions. Pre: ART 103, ART 202

Fall, Spring
ART CONTINUED

ART 231 (3) Mixed Media
Multimedia art exploration is a problem-solving art studio experience involving the use of a variety of traditional and non-traditional art materials.
Fall, Spring
GE-6

ART 240 (3) Painting
Beginning experience with oil and/or acrylic paint. Emphasis upon technical and conceptual development.
Pre: ART 100 or ART 101, ART 110 or consent
Fall, Spring

ART 245 (3) Watercolor
Introduction to basic techniques in watercolor.
Pre: ART 100 or ART 101, ART 110 or consent
Fall, Spring

ART 250 (3) Ceramics: Beginning Wheel
An introduction to basic wheel throwing techniques exploring the potential of clay as a creative and expressive material.
Pre: ART 100 or ART 101, ART 103 or consent
Fall, Spring

ART 251 (3) Ceramics: Beginning Handbuilding
An introduction to basic sculptural hand building techniques exploring the nature of clay as a creative-expressive medium.
Pre: ART 100 or ART 101, ART 103 or consent
Fall, Spring

ART 260 (3) Art History Survey I
Introduction to art history from prehistoric and ancient cultures through the Middle Ages. Includes representative examples and styles of art and architecture of Western (Europe and the Near East) and non-Western cultures (China, India, Japan, Southeast Asia, Africa, Mesoamerica, South America, North America, Australia).
Fall
GE-6, GE-8
Diverse Cultures - Purple

ART 261 (3) Art History Survey II
Lecture-based survey of the Art and Architecture of both Western and non-Western countries from the thirteenth through twentieth centuries.
Spring
GE-6, GE-8

ART 265W (3) Art As Politics
This course analyzes relationships between art and politics from ancient times through today, exploring uses of art from persuasion to overt propaganda in visual arts and architecture. It will deal with diverse cultures, covering material from a global perspective.
Summer
WI, GE-6, GE-8

ART 270 (3) Printmaking: Beginning Silkscreen and Lithography
Introduction to silkscreen and lithography printmaking processes including silkscreen, monotype, and plate lithography.
Pre: ART 101, ART 110 or consent
Fall

ART 271 (3) Printmaking: Beginning Intaglio/Relief
Introduction to intaglio and relief printmaking processes including collagraph, etching, relief carving, and engraving.
Pre: ART 101, ART 110 or consent
Spring

ART 275 (3) Photography
Introduction to the techniques and expressive potential of B/W photography.
Fall, Spring
GE-6

ART 280 (3) Sculpture
Exploration of the visual and physical organization of three-dimensional form and space through problems employing various media and processes.
Pre: ART 103 or consent
Fall, Spring

ART 285 (3) Introduction to Installation
This studio course familiarizes students with the basic concerns of installation art, including relationship to site and audience. A variety of materials and approaches will be explored. Environmental impact, health, and safety will be addressed. In addition to studio work, historical and contemporary examples will be discussed to provide context and encourage awareness of the discipline’s past and present potential.
Fall, Spring
Pre: ART 103 or consent

ART 302 (3) Interactive Design Survey
This course explores the foundations of screen-based design. The course emphasizes the application of design sensibilities to both motion and web design production.
Pre: ART 103, ART 202

ART 304 (3) Typography I
This course investigates the use of letterforms in the message making process. Topics include historical overview of letter development, type terminology, type and image relationships, and technical and aesthetic applications of type.
Pre: ART 103, ART 202

ART 310 (3) Drawing
This course encourages experimental approaches that build on drawing skills developed in ART 110 and ART 210. Formal and conceptual issues will be addressed as students pursue individualized subject matter. Course may be repeated.
Pre: ART 210

ART 320 (3) Graphic Design II
This course expands upon the beginning and intermediate design experience. Emphasis is placed on concept development and the exploration of meaningful solutions applied across a variety of media. The technical skills of preparing work for production will be strengthened.
Pre: ART 220, ART 302, ART 304

ART 324 (3) Concept and Image
This course strengthens students’ conceptual skills within the context of graphic design. The course emphasizes various techniques for generating imagery to more effectively communicate ideas.
Pre: ART 220, ART 302, ART 304
Spring

ART 340 (3) Painting
Intermediate painting. Emphasizing individual creative development. Must be taken twice before advancing to ART 440.
Pre: ART 240 or consent
Fall, Spring

ART 345 (3) Watercolor
Experience in advanced watercolor techniques and concepts. Must be taken twice before advancing to ART 445.
Pre: ART 245 or consent
Fall, Spring

ART 350 (3) Intermediate Ceramics
An intermediate course emphasizing personal exploration and creative research relating to hand building, molding processes and/or the potters wheel. Must be taken twice before advancing to ART 450.
Pre: ART 250 or ART 251
Fall, Spring
ART 370 (3) Printmaking: Intermediate Studio
Continued exploration of intaglio, lithographic, relief and silk-screen processes. Must be taken twice before advancing to ART 470.
Pre: ART 270 or ART 271
Fall, Spring

ART 372 (3) Digital Printmaking
This is an intermediate course focusing exclusively on materials, technique, process, equipment, and safety in contemporary digital printmaking processes.
Pre: ART 202, ART 271

ART 375 (3) Black and White Photography
Intermediate level material on camera work, processing, and calibration. In rotation with ART 377.
Pre: ART 275
Variable

ART 376 (3) Color Photography
Processing, color theory, color correction, and other considerations in color photography.
Pre: ART 275
Variable

ART 377 (3) Digital Photography
Covers the making, manipulation and use of electronically produced photographic images. Topics include Kodak Photo CD, digital camera use, electronic photo retouching, computer image enhancement and combination, and incorporation of traditional techniques for creative solutions of fine and commercial art problems. In rotation with ART 375.
Pre: ART 275
Variable

ART 380 (3) Sculpture
Investigation of three-dimensional form, space and media in search of a personal aesthetic statement. Must be taken twice before advancing to ART 480.
Pre: ART 280
Fall, Spring

ART 385 (3) Intermediate Installation
This studio course explores a wide range of material and conceptual strategies to site-specific work. Personal approaches will be stressed as students develop and implement their own installations. Environmental impact, health, and safety will be addressed. In addition to studio work, the course will cover a variety of installation artists and related readings. Must be taken twice before advancing to ART 485.
Pre: ART 285 or consent
Fall, Spring

ART 391 (0) Portfolio Review
Required of all B.F.A. majors before taking 4XX advanced studio specialization sequence to continue in program.
Fall, Spring

ART 400 (3-6) Graphic Design Special Topics
This advanced course investigates design related topics in greater depth.
Pre: ART 302 and ART 320

ART 402 (3) Motion Graphics
This course is an advanced study of motion design. The study and exploration of digital narrative and non-linear storytelling are key components. Students build on existing motion design skills to create conceptually and technically advanced time-based solutions. This course is repeatable.
Pre: ART 220, ART 302, ART 304

ART 403 (3) Typography II
This course is an advanced study of typography. Students build on existing type sensibilities while exploring traditional and non-traditional applications of type.
Pre: ART 220, ART 302, ART 304

ART 406 (3) Web Design
This course is an advanced study of front-end web design that focuses on current web standards and aesthetic trends.
Pre: ART 220, ART 302, ART 304

ART 410 (3-6) Drawing Workshop
Continued in-depth exploration of drawing techniques and concepts. May be repeated.
Pre: ART 310
Fall, Spring

ART 412 (3) Life Drawing
Advanced experience in drawing from the human figure. May be repeated.
Pre: ART 212 or ART 310
Fall, Spring

ART 413 (3) Scandinavian Art
Overview of representative examples of the history of Scandinavian art from pre-Viking to modern times, concentrating on elements typical of each country or period and on developments that were particularly influential in the broader history of Western art.
Pre: ART 260, ART 261 or consent
Variable

ART 414 (3) Art of Africa, the Americas, and the South Pacific
Introduction to the art and architecture of indigenous peoples. Examination of representative works of art and major styles and cultures of preliterate societies in Africa, the Americas, Oceania, and of Pre-Columbian civilizations in the Americas.

ART 415 (3) Medieval Art and Architecture
Introduction to art and architecture of Western Europe, the Byzantine Empire, and the Islamic world, from the second to the fifteenth centuries. Examination of representative works of art and major styles of Christian, Jewish, and Islamic cultures, including the Romanesque and Gothic periods.
Pre: ART 260 or consent

ART 416 (3) Gender in Art
Historical survey of the representation of gender with comparison of the artistic efforts of males and females and examination of art used to present gender-based issues including homosexuality, feminism, censorship and pornography.
Pre: ART 261 or consent
Variable

ART 417 (3) Scandinavian Art
Introduction to the art and architecture of Western Europe, the Byzantine Empire, and the Islamic world, from the second to the fifteenth centuries. Examination of representative works of art and major styles of Christian, Jewish, and Islamic cultures, including the Romanesque and Gothic periods.
Pre: ART 260 or consent

ART 419 (3) Art Methods Elementary School
Art expression related to child growth, development and teaching strategies.
Pre: ART 100 or ART 101, Jr. status or consent
Fall, Spring

ART 420 (3-6) Art Methods Secondary School
The characteristics of art expression and evaluation at the junior and senior high level: the status, curricula and strategies of teaching. (Required for student teaching).
Pre: ART 421
Fall
ART 428 (3) Teaching Art: Historical and Contemporary Topics
Application of instruction in art history as well as contemporary art to elementary and secondary schools. Includes experiences in elementary classrooms.
Pre: ART 260, ART 261, ART 421 or consent
Variable

ART 429 (1) Art Education Seminar
Capstone experience for students preparing to teach art. Explores and emphasizes information and skills appropriate for teaching art.
Variable

ART 434 (3) Arts Administration
Theoretical and practical aspects of administering arts organizations. Examines the management, budgeting, marketing and administration of arts programs and organizations in the postmodern era.
Fall, Spring

ART 436 (3) Web Design II
This course continues students’ advanced study of front-end web design. Emphasis is placed on designing for multiple screen devices.
Pre: ART 320, ART 324, ART 404, ART 406
Fall, Spring

ART 440 (3-6) Painting
Advanced painting. Continued development of a focused individual expression. May be repeated.
Pre: ART 340
Fall, Spring

ART 444 (3) Typography III
This course continues students’ advanced study of typography. Emphasis is placed on designing complex typographic systems, multiple page publications, and expressive type-based solutions.
Pre: ART 320, ART 324, ART 404, ART 406
Fall, Spring

ART 445 (3-6) Watercolor
Advanced experience in watercolor. May be repeated.
Pre: ART 345
Fall, Spring

ART 450 (3-6) Advanced Ceramics
An advanced course which emphasizes individual research in technical, aesthetic and conceptual considerations. May be repeated.
Pre: ART 350
Fall, Spring

ART 460 (3) Ancient Art
Introduction to the art and architecture of the ancient era in its historical and cultural frameworks. Examination of representative works of art and major styles of ancient Mesopotamian, Egyptian, Aegean, Greek, Etruscan, and Roman cultures.
Pre: ART 260 or consent
Variable

ART 462 (3) Renaissance Art
Origins and development of Northern and Italian Renaissance art and architecture as an expression of historical, cultural and religious issues.
Pre: ART 261 or consent
ALT-Spring

ART 463 (3) Mannerism to Romanticism
Historical survey of art, architecture and urban planning in Europe and America from the late sixteenth to mid-nineteenth century: Mannerism, Baroque, Rococo, Neoclassicism and Romanticism.
Pre: ART 261 or consent
ALT-Spring

ART 464 (3) Art Museum and Exhibition Studies
The study of art museum history, theory and practice, including ethics, collecting, and display. Alongside these studies, students will conceive and realize an exhibition in order to further develop knowledge of and experience in the field.
Pre: ART 260, ART 261
Alt-Spring

ART 466 (3) Realism to Postmodernism
Historical survey of art, architecture and urban planning in Europe and America from the mid-nineteenth century to the present: Realism, Impressionism, Expressionism, Surrealism, Abstract Expressionism, Minimalism, Op Art, Pop Art, and Post-modern issues and trends.
Pre: ART 261 or consent
Fall

ART 467 (3) Art of the Islamic World
Historical survey of art and architectural developments from Islam’s origins through the twentieth century. Course focuses on contextualizing monuments, paintings, and other arts from various regions around the world.
Spring
Diverse Cultures - Purple

ART 468 (3) Design: History and Theory
Survey of Graphic Design, Industrial Design and Architecture from historical and theoretical perspectives. Design issues examined from formal and contextual points of view, using analysis strategies that consider style, composition, historical context, functional/propagandistic significance and communicative ability.
Variable

ART 469 (3) Asian Art
Historical survey of the art and architecture of China, India, Korea and Japan from pre-history to the 20th century.
Pre: ART 260, ART 261 or consent
Variable
Diverse Cultures - Purple

ART 470 (3-6) Printmaking: Advanced Studio
Continued investigation of advanced print making techniques and concepts. May be repeated.
Pre: ART 370
Fall, Spring

ART 475 (3-6) Photography
Expanding technical knowledge and visual awareness while building a portfolio in selected areas. May be repeated.
Pre: ART 375, ART 376 or consent
Fall, Spring

ART 480 (3-6) Sculpture
Continuing development of a strongly personal means of aesthetic expression in three dimensions. May be repeated.
Pre: ART 380
Fall, Spring

ART 485 (3-6) Advanced Installation
This studio course focuses on the planning and implementation of site-specific work. Students’ personal interests will be paramount in the development of works that address site and audience. Professional practices necessary to carry out installations will be emphasized, including proposal development, project planning, and documentation. Environmental impact, health, and safety will be addressed. The course will cover a variety of installation artists and related readings. May be repeated.
Pre: ART 385 or consent
Fall, Spring

ART 490 (1-6) Workshop

ART 491 (1-4) In-Service
ART 125 Observational Astronomy (3)
Core for Minor
students and other visitors during the spring and the fall. Public viewing nights at
graphic and electronic cameras and photometers, is used primarily for advanced
controlled Cassegrain telescope. This instrument, which is equipped with photo
students in Astronomy 125. Andreas Observatory houses a 0.5-meter computer-
Several other 10- to 13-inch telescopes are also available for instructional use by
visual observations by general education students and other observatory visitors.

The astronomers operate two observatories on the southern edge of the campus.

Astronomy minors must maintain a minimum 2.5 GPA in all course
work for their astronomy program, and in addition must earn a “C” or better for a
course to apply to their minor. These standards apply to the courses required for the
degree and their prerequisites. A minimum cumulative GPA of 2.0 is required
for graduation. There are no prerequisite GPA requirements for internships.

The astronomy program serves the needs of a wide range of students, from those with
only a casual interest in the subject to those students planning careers in the field.
The 100-level courses (which include general education offerings) are designed to
introduce astronomy to the student with a minimal background in mathematics and
the physical sciences. The courses taken by astronomy minors cover a variety of
topics in modern astronomy and astrophysics and require significant preparations in
mathematics and physics. Paired with a major in physics, the astronomy minor serves
as the first step towards a career in teaching or research in astronomy.

The astronomers operate two observatories on the southern edge of the campus. Staneford Observatory contains a 14-inch Schmidt-Cassegrain telescope, used for visual observations by general education students and other observatory visitors. Several other 10- to 13-inch telescopes are also available for instructional use by students in Astronomy 125. Andreas Observatory houses a 0.5-meter computer-controlled Cassegrain telescope. This instrument, which is equipped with photographic and electronic cameras and photometers, is used primarily for advanced instruction and faculty research. Staneford Observatory is open regularly for students and other visitors during the spring and the fall. Public viewing nights at Andreas Observatory are held occasionally during the year as weather permits.

**ASTRONOMY MINOR**

<table>
<thead>
<tr>
<th>Core for Minor</th>
<th>Pre or Co-req: AST 101 or AST 102</th>
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<tbody>
<tr>
<td>AST 125</td>
<td>Observational Astronomy (3)</td>
</tr>
<tr>
<td>AST 201</td>
<td>Spherical Astronomy (2)</td>
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</tbody>
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**ASTRONOMY**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
<th>Description</th>
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<tbody>
<tr>
<td>AST 201 (2) Spherical Astronomy</td>
<td></td>
<td>The celestial sphere; coordinate systems; sidereal and solar time; diurnal motion; precession; proper motion; refraction; aberration; parallax. Requires a background in trigonometry.</td>
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</tbody>
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**ART CONTINUED**

ART 115 (2) Life in the Universe
The probability of extraterrestrial intelligent life; the chemical basis of life; planetary environments; habitable zones; the Drake equation; UFOs; space travel; interstellar communication; limits on technical civilizations. Fall, Spring

GE-2, GE-3

ART 125 (3) Observational Astronomy
Techniques for observing with naked eye, binoculars and small telescopes; constellation and star identification; use of star atlases and handbooks; observations of stars, binaries, clusters, nebulae, etc. Evening observing sessions required. Pre: AST 101 or consent

AST 201 (1-6) Internship
Field experience in professional settings relating to the specialization: graphic design, museum or arts administration, etc. Pre: Jr. standing with consent of advisor and department chair. Fall, Spring

ART 499 (1-6) Individual Study
Advanced level pursuit of special projects of research on an independent basis. Requires contractual agreement in art office for registration. Pre: Consent

Fall, Spring
AST 215 (4) Astronomy and Astrophysics I
Celestial mechanics; gravitational and tidal forces; stellar motions and parallax; radiation and matter; magnitudes and stellar spectra; binary stars and stellar masses; stellar structure and evolution.
Pre: MATH 121 and PHYS 221
Fall

AST 225 (4) Astronomy and Astrophysics II
Stellar endpoints; close binary systems; variable stars; the Milky Way; normal galaxies; galactic evolution; active galaxies and quasars; cosmology.
Pre: AST 215, MATH 122, PHYS 222
Spring

AST 294 (1-6) Workshop
A short course devoted to a specific astronomical topic. May be repeated for credit on each new topic.
Variable

AST 351 (2) Telescope Operations
Operating the 0.5 meter telescope; operating the BRC 250 astrograph; learning to install and operate ancillary equipment for both telescopes.
Pre: AST 201 and AST 215, Consent
Variable

AST 353 (2) Photometry I
Photometric systems; observational techniques of point-source photometry; methods of data reduction; interpretation of data.
Pre: AST 215
ALT-Fall

AST 354 (2) Photometry II
Observations of extended sources; photometric calibration of extended sources; use of secondary standard stars.
Pre: AST 353
ALT-Spring

AST 355 (2) Astrometry
Reduction of digital images to determine positions, proper motions, and parallaxes of stars; analysis of errors.
Pre: AST 201 and AST 215
ALT-Spring

AST 357 (2) Spectroscopy
Line identification; radial velocity determinations; spectral classification.
Pre: AST 225
ALT-Fall

AST 420 (3) Stellar Astrophysics
Blackbody radiation; radiative transfer; atomic structure; spectroscopic notation; excitation; ionization; absorption and emission coefficients; line profiles; analysis of stellar spectra.
Pre: AST 225 and PHYS 223
ALT-Fall

AST 421 (3) Stellar Structure
The gaseous state; degenerate matter; equations of stellar structure; polytropes; models of stellar interiors and atmospheres; stellar evolution; nucleosynthesis; stellar endpoints.
Pre: AST 420
ALT-Spring

AST 430 (3) Galactic Structure
Structure, kinematics, and dynamics of our galaxy.
Pre: AST 225, PHYS 222, MATH 223
ALT-Fall

AST 431 (3) Extragalactic Astronomy
Normal galaxies; groups and clusters of galaxies; galaxy interactions and mergers; active galactic nuclei; large-scale structure; galaxy formation and evolution; cosmology.
Pre: AST 430
ALT-Spring

AST 488 (1-4) Seminar
May be repeated for credit on each new topic.
Pre: Consent
Variable

AST 491 (1-6) In-Service
A course designed to upgrade the qualifications of persons on-the-job.
Variable

AST 493 (1-6) Undergraduate Research
Students will conduct supervised research in astronomy.
Pre: Consent
Variable

AST 494 (1-6) Workshop
A short course devoted to a specific astronomical topic. May be repeated for credit on each new topic.
Variable

AST 495 (1-4) Selected Topics
A course in a particular area of astronomy not regularly offered. May be repeated for credit on each new topic.
Pre: Consent
Variable

AST 497 (1-16) Internship
Provides a student the opportunity to gain expertise and experience in a special field under the supervision of a qualified person.
Pre: Consent
Variable

AST 499 (1-8) Individual Study
Individual study under the guidance of an astronomy faculty member.
Pre: Consent
Fall, Spring

Athletic Coaching

College of Allied Health & Nursing
Department of Human Performance
1400 Highland Center • 507-389-6313

Chair: Robert Pettitt

This minor prepares students for coaching positions in Minnesota and other states. For further information, contact the Department of Human Performance.

Policies/Information

Student must apply for practicum and athletic coaching minor.

GPA Policy. A 2.0 GPA is required.

P/N Grading Policy. All courses in the minor must be taken “grade only” except HP 482 which is P/N.
ATHLETIC COACHING MINOR

Required for Minor
- HP 340 Prevention and Care (2)
- HP 372 Exercise Science for Coaches (3)
- HP 451 Principles of Coaching (3)
- HP 462 Sports Administration (3)
- HP 470 Psychology of Coaching (3)
- HP 482 Coaching Practicum (1)
- HLTH 210 First Aid and CPR (3)

Required Electives - Choose two of the following courses (2 credits)
- HP 301 Swimming Theory (1)
- HP 303 Volleyball Theory (1)
- HP 304 Track & Field Theory (1)
- HP 305 Baseball Theory (1)
- HP 306 Football Theory (1)
- HP 307 Hockey Coaching Theory (1)
- HP 308 Basketball Coaching theory (1)
- HP 310 Softball Theory (1)
- HP 311 Cross Country Theory (1)
- HP 316 Tennis Theory (1)
- HP 317 Golf Coaching Theory (1)
- HP 318 Soccer Theory (1)

ATHLETIC COACHING CONTINUED

Automotive Engineering Technology
College of Science, Engineering & Technology
Department of Automotive & Manufacturing
Engineering Technology
205 Trafton Science Center E
Phone: 507-389-6383
Fax: 507-389-5002
Website: www.cset.mnsu.edu/aet

Chair: Dr. Bruce E. Jones, Ph.D.
Kuldeep Agarwal, Ph.D., Craig Evers, Ph.D., P.E., David Guerra-Zubiaga, Ph.D., Gary Mead, Ph.D., Harry Petersen, Ph.D., P.E., Winston Sealy, Ph.D.

Accreditation. The Automotive Engineering Technology program is accredited by the Engineering Technology Accreditation Commission of ABET, 415 N. Charles Street, Baltimore, MD 21201, 410.347.7700, www.ABET.org

The mission of the Automotive Engineering Technology (AET) degree program at Minnesota State Mankato, is to provide a broad-based education for graduates to enter globally competitive automotive careers to serve the citizens of Minnesota and the world by:

- providing the highest quality education to prepare application-oriented graduates for a broad range of career opportunities in product research, design, development, and technical sales environments;
- encouraging and supporting faculty and students to engage in scholarly research and activities through partnerships with government, industry, and other constituencies that support effective and ethical transfer of technology;
- providing access to state of the art equipment, facilities, and methodologies, along with faculty expertise to benefit (AET) students; and
- broadening access to the program for diverse populations and support of K-12 pipeline development.

Program Description. The Automotive Engineering Technology (AET) degree program awards a Bachelor of Science degree (BS) to successful students through a four-year curriculum.

Engineering technology has been defined as the part of the technological field which requires the application of scientific and engineering knowledge and methods combined with technical skills in support of engineering activities; it lies in the occupational spectrum between the craftsman and the engineer at the end of the spectrum closest to the engineer. Engineering technology is oriented less toward theory and more toward practical applications. - American Society of Engineering Education (ASEE).

The Automotive Engineering Technology degree program prepares graduates for careers in product research, design and development, manufacturing, and technical sales in the original equipment and aftermarket industries. Fields include passenger cars, trucks, motorcycles, recreational vehicles, vehicle emissions, safety, fuels and lubricants, construction, industrial, and agricultural equipment. Graduates from the program are currently working for original equipment manufacturers (OEMs), such as General Motors, Polaris, John Deere, AGCO, and Ford along with aftermarket companies such as Competition Cams, OTC, and S&S Cycle. A more complete reference to companies employing (AET) graduates may be obtained from the Department Chair.

The Society of Automotive Engineers (sae.org) and National Institute of Automotive Service Excellence (ase.com) are the lead professional societies used in developing program criteria, guiding program relevance, and making continuous improvement.

The primary goal of the (AET) program is to provide all graduates with the solid technical foundation necessary to insure their success in a wide variety of employment opportunities. To accomplish this goal, program outcomes and objectives are defined and assessed for continuous improvement. They are as follows:

Program Outcomes. Students at the time of graduation are prepared to:
1. apply knowledge of science, math, statistics, and engineering technology to solve problems encountered in a professional career in the automotive industry.
2. design, analyze and build virtual and real models, and conduct testing in product development environments through applied computer technologies.
3. define and communicate a set of requirements for a system, component or process and develop solutions to satisfy given criteria in an optimal fashion using creativity in design.
4. function effectively as a manager, leader, or member of a team.
5. understand and practice professional, ethical, environmental, and global responsibilities.
6. communicate effectively across all design and management interface levels of an organization.
7. recognize the need for, and then develop, the skills for life-long learning.
8. understand and engage in behavior which respects diversity and global cultures
9. practice timeliness and quality with regard to work requirements

Program Objectives. AET graduates two to three years into their careers should have the foundation to:
1. deliver products, services, and support to both internal and external organizations by applying technical knowledge, problem solving techniques and hands-on skills in traditional and emerging technologies.
2. actively participate in on-going professional development, professional growth, and increasing professional responsibility.
3. effectively communicate ideas to technical and non-technical people.
4. perform in or manage cross-functional teams.
5. work within the accepted standards of professional integrity and conduct.
6. design, analyze, build, and test virtual or real models in product development and continuous improvement environments.
7. implement, and continuously improve cost, quality, time, and goals using world class management methodologies.
POLICIES/INFORMATION

Admission to the AET major is granted by the AMET Department. Admission to the major is required to register for 300-level courses. Minimum requirements for acceptance into the AET major include a cumulative GPA of 2.0 or higher and the completion of the following courses with a grade of “C” (2.0) or higher: AET 102, AET 160, AET 261, AET 262, CMST 100 or CMST 102, EET 113, ENG 101, MET 142, MET 144, MET 177, MATH 121, PHYS 211.

GPA Policy. A GPA of 2.5 or higher in courses required for the major or minor in Automotive Engineering Technology in order to proceed in the program sequence and graduate. This GPA calculation is based on the following areas: Required Communications; Required Basic Science and Mathematics; Required Major and Required Elective Courses. Refer to the College of Science Engineering and Technology Student Advising Center regarding required advising for students on academic probation.

Department Grade Policy. All courses in the AET major, and the required Communications, Basic Science and Mathematics courses must be completed with a grade of “C” or better except for AET 387, AET 488, and AET 489.

P/N Grading Policy. No more than 1/4 of all undergraduate credits may be P/N, except those courses offered P/N only.

Residency. A minimum of 50 percent of the credits for a major or minor in Automotive Engineering Technology must be taken at Minnesota State Mankato.

Prerequisites and co-requisites must be observed unless written permission is obtained from the instructor and the Department of AMET. A flow chart of prerequisites is available at the Department Office.

The scheduling of all department courses is done bi-annually, based on enrollment and staffing. To obtain a current class schedule, contact the Department.

AUTOMOTIVE ENGINEERING TECHNOLOGY BS

Degree completion = 128 credits

Required General Education

CHEM 104 Introduction to Chemistry (3)
ENG 271W Technical Communication (4)
MATH 115 Precalculus Mathematics (4)
STAT 154 Elementary Statistics (3)

Prerequisites for Major

AET 102 Introduction to Automotive Engineering Technology (1)
AET 160 Automotive Technology & Systems (4)
AET 261 Automotive Driveability & Diagnosis (4)
AET 262 Automotive Computers and Electronics (4)
EET 113 DC Circuits (3)
ENG 101 Composition (4)
MATH 121 Calculus I (4)
MET 142 Introduction to Parametric Modeling (3)
MET 144 Product Development & Design (3)
MET 177 Materials Processing and Metallurgy (4)
PHYS 211 Principles of Physics I (4)

Communication Studies (choose 3 credits)

CMST 100 Fundamentals of Speech Communication (3)
CMST 102 Public Speaking (3)

Major Common Core

AET 334 Fluid Power (3)
AET 364 Chassis Design and Performance Testing (4)
AET 366 Automotive Thermodynamics and Engine Design (3)
AET 378 Composite Materials (3)
AET 387 Junior Design Project (1)
AET 465 Automotive Laboratory Experience (2)
AET 468 Automotive Research Methods (4)

Electives (choose 3 additional credits of AET/MET courses)

AET 488W Senior Design Project I (3)
AET 489W Senior Design Project II (3)
MATH 122 Calculus II (4)
MET 323 Statics (3)
MET 324 Strength of Materials and Dynamics (4)
MET 341 Advanced Parametric Modeling (3)
MET 424 Industrial Safety (2)
PHYS 212 Principles of Physics II (4)

Major Restricted Electives

Programming (choose 3 credits)
CS 271 Introduction to Graphical Programming (3)
EET 315 Programmable Instrumentation (3)

Required Minor: None

AUTOMOTIVE ENGINEERING TECHNOLOGY MINOR

Required for Minor

AET 102 Introduction to Automotive Engineering Technology (1)
AET 160 Automotive Technology & Systems (4)
AET 261 Automotive Driveability and Diagnosis (4)
AET 262 Automotive Computers and Electronics (4)

Electives (choose 3 additional credits of AET/MET courses)

COURSE DESCRIPTIONS

AET 102 (1) Introduction to Automotive Engineering Technology
An overview of careers, technology and requirements of the Automotive Engineering Technology program. Careers in engineering technology are examined along with professional organizations and ethics.

Fall

AET 160 (4) Automotive Technology & Systems
This course is centered on the theory, operation and service of the systems found in modern automobiles. Lectures and demonstrations cover the course topics and open lab sessions allow students to practice procedures on their own vehicles in the completion of course assignments.

Fall, Spring

AET 261 (4) Automotive Driveability and Diagnosis
This course focuses on the engine’s mechanical, ignition, fuel, and emission system using a systems approach to diagnose problems. Test equipment used in the course includes: fuel and fuel system; emission system; ignition oscilloscopes; valve refubishing and mechanical diagnostic equipment.

Fall, Spring

AET 262 (4) Automotive Computers and Electronics
This course is centered on the theory, components, and diagnostic procedures related to modern automobile electrical and electronic systems. The major emphasis of the course involves the computer, sensors, and actuators as used in vehicles to control the ignition, fuel, emission, ABS, and chassis systems.

Pre: AET 160, AET 261, EET 113

Fall, Spring

AET 334 (3) Fluid Power
Course provides a fundamental understanding of the physical principles of fluid power, along with a practical working knowledge of the components utilized in designing, installing, operating, and maintaining hydraulic and pneumatic power systems.

Fall, Spring

Pre: MATH 121, PHYS 211

AET 364 (4) Chassis Design and Performance Testing
This course is an exploration of the theory and design of chassis systems, in addition to evaluation of these designs. Research tools include software design simulators, chassis geometry gauges, and dynamometers.
AET 365 (2) Automotive Laboratory Experience
This course designed to provide experience in management, organization, supervision, and maintenance in a laboratory environment. Enrollment is limited. Sign up at least two semesters ahead.

AET 465 (2) Automotive Laboratory Experience
This course designed to provide experience in management, organization, supervision, and maintenance in a laboratory environment. Enrollment is limited. Sign up at least two semesters ahead.

AET 468 (4) Automotive Research Methods
Automotive research techniques and equipment form the basis for this course. Environmental measurement, air flow testing, dynamometer testing, emission measurement and fuel efficiency testing is covered. Emphasis is placed on research procedures, data acquisition and interpretation.
Pre: AET 366, PHYS 211, STAT 154
Fall, Spring

AET 488 (3) Senior Design Project I
The first of a two-course sequence where students design their capstone design project. Weekly meetings are scheduled where the design team carries out the tasks required for completion. Formal design presentations and research papers are presented at the end of the course.
Pre: AET 364, AET 387, MET 324, MET 341
Coreq: AET 468
Fall

AET 489W (3) Senior Design Project II
The second of a two-course sequence where students design their capstone design project. The course culminates with the completion of the capstone project. Formal design presentations and research papers are submitted for publication.
Pre: AET 468, AET 488
Spring

AET 492 (1-4) Automotive Seminar
Selected automotive topics.
Pre: Permission required
On-Demand

AET 497 (1-10) Internship: Automotive
Automotive work experience in an area pertinent to the student’s career objectives. Consent of internship coordinator required prior to the beginning of employment and registration. Typically done between the junior and senior year.
Pre: 40 earned credits in AET/MET
Fall, Spring, Summer

AET 499 (1-4) Individual Study
Pre: Permission required

Pre: MATH 121, PHYS 211
Fall, Spring

AET 366 (3) Automotive Thermodynamics and Engine Design
This course focuses on the study of thermodynamics as it relates to internal combustion engines and their design. Static and dynamic engine measurements are thoroughly covered along with an introduction to fuel cell and hybrid applications. Thermochemistry topics are covered including fuel characteristics, mixture ratios and emission characteristics.
Pre: CHEM 104, MATH 121, PHYS 211
Fall, Spring

AET 378 (3) Composite Materials
Fiber reinforced plastic composite materials used in the manufacturing and transportation industries are the focus of this course. Matrix and reinforcement materials are examined and their properties identified. Manufacturing methods, fabrication, assembly techniques, testing, repair, and design of composite products are covered.
Pre: MET 177, MET 324, CHEM 104
Fall, Spring

AET 387 (1) Junior Design Project
An examination of automotive design and research along with a review of topics such as ethics, professionalism, measurement, statistics, and career development/placement. This course prepares the student for AET 488, Senior Design Project I, where the design proposal, design project and final report are completed.
Pre: ENG 271W, MET 144, STAT 154
Spring

AET 398 (0) CPT: Co-Operative Experience
Curricular Practical Training: Co-Operative Experience is a zero-credit full-time practical training experience for one summer and on adjacent fall or spring term. Special rules apply to preserve full-time student status. Please contact an advisor in your program for complete information.
Pre: AET 102. At least 60 credits earned; in good standing; instructor permission; co-op contract; other prerequisites may also apply.
Fall, Spring, Summer

AET 435 (1-4) Automotive Design and Construction
Focuses on the design and construction of prototype vehicles. Topics include: vehicle design decisions, rules, budgets, chassis design, body and aerodynamics, drivetrain choices, construction techniques, and test procedures. An experimental vehicle will be built in the course. May be repeated.
Pre: Permission Required
Fall, Spring

AET 436 (3) Hybrid and Electric Vehicles
This course covers advanced vehicle propulsion systems within the electric and hybrid electric category. Fundamentals of the operation of electric motors, controllers, inverters, and batteries utilized in electric and hybrid platforms will be covered. In addition a significant focus will be placed on the application, modeling, integration, testing, and optimization of the systems in electric and hybrid electric vehicles.
Pre: AET 366, MATH 122, PHYS 212
Variable

AET 499 (1-4) Individual Study
Pre: Permission required
Aviation

College of Education
Department of Aviation
328 Armstrong Hall • 507-389-6116

Chair: Thomas Peterson

Nihad Daidzic, Joel Patrick McKinzie, Jeff Peterson, Thomas Peterson

Aviation Program Mission Statement. The mission of Minnesota State University, Mankato’s aviation program is to educate students today who will become professionals responsible for the safe and efficient design, management, and operation of the aviation system tomorrow. The program combines all elements of a substantive university education with aviation, flight, and management components to graduate well prepared aviation professionals. Acquisition of airmanship knowledge, skills, and ability while in college develops professionalism, responsibility, self-reliance and marketable skills for early career progression, and provides important experiences which ensure a level of understanding and competency essential to becoming an effective leader in an aviation profession.

Advising. Aviation students will be assigned a faculty advisor following an initial or transfer orientation session. Faculty advising appointments may be scheduled directly with your faculty advisor. College of Education Student Relations Coordinator, is available for general education advisement. Students may make appointments with the College of Education Academic Advising Office in 117 Armstrong Hall, phone # 507-389-1215.

POLICIES/INFORMATION

Admission to Major. Coordinator for Admission to Major, Mymique Baxter, 117 Armstrong Hall.

All students must submit an unofficial transcript or DARS report (available at the Campus Hub).

Students must meet the following requirements:

- a minimum of 32 earned semester credit hours.
- a minimum cumulative GPA of 2.50.

Students may enroll in 100 and 200 aviation coursework prior to admission to major.

Flight Lab. Flight costs are determined on an hourly basis for aircraft and flight instruction. To obtain FAA certifications requires FAA exams which may require a fee.

Transfer of college credit and credit for certificates and/or ratings. The Minnesota State Mankato Department of Aviation bases its flight education philosophy on a four-year university degree. Consequently, students who have obtained flight certificates/ratings without earned college credit may not have satisfied the academic and flight requirements for the aviation major. Students must demonstrate that they have received the full breadth and depth of knowledge, skills, abilities, and attitudes consistent with an education received at Minnesota State Mankato. Once enrolled at Minnesota State Mankato, students are expected to complete all subsequent flight training within Minnesota State Mankato’s aviation program.

Transfer credits. To satisfy aviation curriculum requirements, students with pilot certificates and ratings earned with college credit through an Aviation Accreditation Board International (AABI) accredited university may transfer these credits without demonstration of proficiency. College credits obtained through a non AABI accredited institution will be reviewed by the Department of Aviation to ensure the issuing institution follows policies and practices consistent with AABI accreditation standards. In the event credits do not transfer, students may be required to follow Credit for Experience procedures.

Prior Experience. Students entering Minnesota State Mankato with completed FAA certificates must register for and complete the requirements for the applicable ground school and flight lab courses. Prior flight experience will be evaluated by the faculty and may result in advanced standing in flight labs. Students are responsible for aircraft rental required for the evaluation.

GPA Policy. Admission to College of Education, 2.0 cumulative GPA.

P/N Grading Policy. Only elective and general education courses may be taken P/N, unless offered P/N only.

<table>
<thead>
<tr>
<th>Major Common Core</th>
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</thead>
<tbody>
<tr>
<td>AVIA 101 World of Aviation (3)</td>
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<tr>
<td>AVIA 150 Private Pilot (4)</td>
</tr>
<tr>
<td>AVIA 334 Aviation Management (4)</td>
</tr>
<tr>
<td>AVIA 437 Aviation Safety (4)</td>
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<tr>
<td>AVIA 445 Aviation Human Factors (3)</td>
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</tbody>
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<table>
<thead>
<tr>
<th>Major Emphasis: Professional Flight Concentration</th>
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</thead>
<tbody>
<tr>
<td>AVIA 151 Private Pilot Flight Lab (2)</td>
</tr>
<tr>
<td>AVIA 153 Private Pilot Flight Lab II (1)</td>
</tr>
<tr>
<td>AVIA 240 Instrument Pilot (3)</td>
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<tr>
<td>AVIA 241 Instrument Pilot Flight Lab (2)</td>
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<tr>
<td>AVIA 243 Instrument Pilot Flight Lab II (1)</td>
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<tr>
<td>AVIA 250 Commercial Pilot (3)</td>
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<tr>
<td>AVIA 251 Commercial Pilot Flight Lab (2)</td>
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<tr>
<td>AVIA 253 Commercial Pilot Flight Lab II (2)</td>
</tr>
<tr>
<td>AVIA 338 Advanced Aircraft Systems (3)</td>
</tr>
<tr>
<td>AVIA 340 Flight Operations (3)</td>
</tr>
<tr>
<td>AVIA 360 Flight Instructor (3)</td>
</tr>
<tr>
<td>AVIA 361 Initial CFI-Airplane-Multiengine Flight Lab (1)</td>
</tr>
<tr>
<td>AVIA 362 Add-on CFI-A Single Engine Flight Lab (1)</td>
</tr>
<tr>
<td>AVIA 363 CFI-Instrument Airplane (CF-I) Flight Lab (1)</td>
</tr>
<tr>
<td>AVIA 432 Aviation Law-General (3)</td>
</tr>
<tr>
<td>AVIA 436 Flight Operations &amp; Procedures (3)</td>
</tr>
<tr>
<td>AVIA 450 Professional Pilot Theory (3)</td>
</tr>
<tr>
<td>AVIA 451 Professional Pilot Course (3)</td>
</tr>
<tr>
<td>AVIA 455 Aircraft Performance (3)</td>
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<table>
<thead>
<tr>
<th>Major Emphasis: Aviation Management Concentration</th>
</tr>
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<tbody>
<tr>
<td>ACCT 200 Financial Accounting (3)</td>
</tr>
<tr>
<td>AVIA 343 Airport Management (3)</td>
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<tr>
<td>AVIA 432 Aviation Law-General (3)</td>
</tr>
<tr>
<td>AVIA 435 Aviation Law-Transactions (3)</td>
</tr>
<tr>
<td>BW 200 Legal, Political, and Regulatory Environment of Business (3)</td>
</tr>
<tr>
<td>ECON 201 Principles of Macroeconomics (3)</td>
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<tr>
<td>ECON 202 Principles of Microeconomics (3)</td>
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<tr>
<td>FINA 362 Business Finance (3)</td>
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<tr>
<td>MGMT 200 Introduction to MIS (3)</td>
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<tr>
<td>MGMT 330 Principles of Management (3)</td>
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<tr>
<td>MRKT 310 Principles of Marketing (3)</td>
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<td>Course Code</td>
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<tr>
<td>AVIA 101</td>
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<tr>
<td>AVIA 150</td>
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<tr>
<td>AVIA 437</td>
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</tbody>
</table>

**AERONAUTICS MINOR**

An Aeronautics minor in Aviation is obtained after completing 16 required aviation core courses and 10 aviation electives. The minor provides fundamentals of the Aeronautical and Aviation sciences that may result in the candidate obtaining pilot certificates provided the required flight training is completed and all practical tests passed.

**Minor Core**

<table>
<thead>
<tr>
<th>Course Code</th>
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</thead>
<tbody>
<tr>
<td>AVIA 101</td>
<td>World of Aviation (3)</td>
</tr>
<tr>
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<td>Private Pilot (4)</td>
</tr>
<tr>
<td>AVIA 437</td>
<td>Aviation Safety (4)</td>
</tr>
</tbody>
</table>

**Electives**

A plan of study must be completed and approved by the Aviation Department.

**Restricted Electives (choose 9 credits)**

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>AVIA 151</td>
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<td>Instrument Pilot (3)</td>
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<tr>
<td>AVIA 243</td>
<td>Instrument Pilot Flight Lab II (1)</td>
</tr>
<tr>
<td>AVIA 250</td>
<td>Commercial Pilot (3)</td>
</tr>
<tr>
<td>AVIA 251</td>
<td>Commercial Pilot Flight Lab II (1)</td>
</tr>
<tr>
<td>AVIA 253</td>
<td>Commercial Pilot Flight Lab II (2)</td>
</tr>
<tr>
<td>AVIA 333</td>
<td>Airline Operations (3)</td>
</tr>
<tr>
<td>AVIA 337</td>
<td>Avionics (3)</td>
</tr>
<tr>
<td>AVIA 343</td>
<td>Airport Management (3)</td>
</tr>
<tr>
<td>AVIA 432</td>
<td>Aviation Law I (3)</td>
</tr>
<tr>
<td>AVIA 435</td>
<td>Aviation Law II (3)</td>
</tr>
<tr>
<td>AVIA 436</td>
<td>Advanced Flight Operations (3)</td>
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<tr>
<td>AVIA 442</td>
<td>Fundamentals of Air Traffic Control (3)</td>
</tr>
<tr>
<td>AVIA 443</td>
<td>Airline Dispatch (3)</td>
</tr>
<tr>
<td>AVIA 445</td>
<td>Aviation Human Factors (3)</td>
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</tbody>
</table>

**PRIVATE FLIGHT MINOR**

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<tr>
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</tr>
<tr>
<td>AVIA 171</td>
<td>Multi-Engine Flight Lab (1)</td>
</tr>
<tr>
<td>AVIA 240</td>
<td>Instrument Pilot (3)</td>
</tr>
<tr>
<td>AVIA 241</td>
<td>Instrument Pilot Flight Lab (2)</td>
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<tr>
<td>AVIA 243</td>
<td>Instrument Pilot Flight Lab II (1)</td>
</tr>
<tr>
<td>AVIA 250</td>
<td>Commercial Pilot (3)</td>
</tr>
<tr>
<td>AVIA 251</td>
<td>Commercial Pilot Flight Lab II (1)</td>
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<tr>
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**PROFESSIONAL FLIGHT MINOR**

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**Required Elective**

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<tr>
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</tr>
<tr>
<td>AVIA 253</td>
<td>Commercial Pilot Flight Lab II (2)</td>
</tr>
<tr>
<td>AVIA 340</td>
<td>Flight Operations (3)</td>
</tr>
<tr>
<td>AVIA 436</td>
<td>Flight Operations and Procedures (3)</td>
</tr>
</tbody>
</table>

**Required Minor: None.**
AVIATION CONTINUED

PROFESSIONAL PILOT CERTIFICATE (CERT)

Note: This certificate program is not currently accepting students.

Certificate Core

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AVIA 150</td>
<td>Private Pilot (4)</td>
<td></td>
</tr>
<tr>
<td>AVIA 201</td>
<td>Theory of Flight (3)</td>
<td></td>
</tr>
<tr>
<td>AVIA 202</td>
<td>Principles of Air Navigation (3)</td>
<td></td>
</tr>
<tr>
<td>AVIA 240</td>
<td>Instrument Pilot (3)</td>
<td></td>
</tr>
<tr>
<td>AVIA 250</td>
<td>Commercial Pilot (3)</td>
<td></td>
</tr>
<tr>
<td>GEOG 217</td>
<td>Weather (4)</td>
<td></td>
</tr>
<tr>
<td>GEOG 218</td>
<td>Weather Laboratory (1)</td>
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</tbody>
</table>

Certificate Restricted Electives

Helicopter or Airplane

Select one group, either the helicopter option (12 credits) or the airplane option (10 credits).

Helicopter

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AVIA 152</td>
<td>Private Pilot Helicopter Flight Lab (3)</td>
<td></td>
</tr>
<tr>
<td>AVIA 242</td>
<td>Instrumental Pilot Helicopter Flight Lab (3)</td>
<td></td>
</tr>
<tr>
<td>AVIA 252</td>
<td>Commercial Pilot Helicopter Flight Lab (3)</td>
<td></td>
</tr>
<tr>
<td>AVIA 270</td>
<td>Helicopter Pilot (3)</td>
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</table>

Airplane

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<td></td>
</tr>
<tr>
<td>AVIA 261</td>
<td>Instrument Pilot Flight Lab (3)</td>
<td></td>
</tr>
<tr>
<td>AVIA 371</td>
<td>Multi-Engine Flight Lab (1)</td>
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</tbody>
</table>

Domestic or International Students

Pick one option. The first is intended for domestic students, the second offers courses in English for Aviation for non-native English speakers. Advisor approval is necessary for your selection.

<table>
<thead>
<tr>
<th>Course Code</th>
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<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AVIA 101</td>
<td>World of Aviation (3)</td>
<td></td>
</tr>
<tr>
<td>ENG 207</td>
<td>Special Topics in ESL (1-4)</td>
<td></td>
</tr>
</tbody>
</table>

COURSE DESCRIPTIONS

AVIA 101 (3) World of Aviation

Provides an expanded study of the changing and shrinking world brought on by the introduction of technology using the medium of aviation, especially the fixed-wing airplane, throughout the course of history. Students will analyze the significant impact and rapid changes aviation has had on cultures, commerce, wars, economics, and transportation. The effect the introduction and expansion of aviation technology has had on the world created many of the same effects the expansion of the internet has had over the last 20 years.

Fall, Spring

AVIA 102 (3) Aviation Terminology

Aviation Terminology teaches international students the terms and meanings of airports, aircraft, and aviation in general. The course will also include instruction in proper pilot and air traffic control radio procedures and methods when in flight and on the ground. The course should reduce future difficulties in follow-on aviation management or professional flight courses.

Fall

AVIA 150 (4) Private Pilot

A study of basic aeronautical knowledge including principals of flight, aerodynamics, aviation regulations, weather, visual and instrument navigation, and emergencies. The course meets, but is not limited to, FAR part 61.105 (a, 1-6). Satisfactory completion of this course may result in an endorsement for the FAA Private Pilot written exam.

Fall, Spring

AVIA 151 (2) Private Pilot Flight Lab

Provides beginning flight student with the in-flight requirements needed to obtain the FAA Private Pilot’s Certificate.

Fall, Spring

AVIA 152 (3) Private Pilot Helicopter Flight Lab

Provides initial flight student with the in-flight training requirements needed to obtain the FAA private Pilot Helicopter Certificate.

On-Demand

AVIA 153 (1) Private Pilot Flight Lab II

Continues the flight lab progression in the MSU aviation program to the second stage of the Private Pilot flight lab. The course reviews and expands the classroom knowledge received in the Private Pilot Ground Course as well as the skills developed in AVIA 151. The training flights continue the building block approach to training with student pilots gradually obtaining the skills to safely fly an aircraft and pass an FAA administered practical examination.

Pre: AVIA 151

Fall, Spring, Summer

AVIA 171 (1) Multi-Engine Flight Lab

Prepares advanced flight student with the in-flight requirements needed to obtain the FAA Multi-Engine Pilot rating.

Pre: AVIA 151, or equivalent

Fall, Spring

AVIA 201 (3) Theory of Flight

A study of physics and aerodynamic principals of flight and propulsion systems. The nature of aerodynamic forces are explained. Flight principals of lighter-than-air, airplane, glider, rotocraft and powered lift are covered in detail.

Pre: AVIA 101, AVIA 150

Fall, Spring

AVIA 202 (3) Principles of Air Navigation

A study of fundamental air navigation principles and how it is applied to flight, piloting and dead reckoning, great circle navigation, charts and conformal projects, and celestial navigation systems and their operations and use.

Pre: AVIA 150

Spring

AVIA 240 (3) Instrument Pilot

A study of the aeronautical knowledge including aviation regulations, weather, instrument navigation, and instrument emergencies. The course meets, but is not limited to, FAR part 61.65 (b, 1-4). Satisfactory completion of this course may result in an endorsement for the FAA Instrument Pilot written exam.

Pre: AVIA 150, or equivalent

Fall, Spring

AVIA 241 (2) Instrument Pilot Flight Lab

Prepares advanced flight students with the in-flight requirements needed to obtain the FAA Instrument Pilot rating.

Pre: AVIA 151, or equivalent

Fall, Spring

AVIA 242 (3) Instrument Pilot Helicopter Flight Lab

Prepares advanced flight students with the in-flight requirements needed to obtain the FAA Instrument Pilot Helicopter rating.

Pre: AVIA 152

On-Demand

AVIA 243 (1) Instrument Pilot Flight Lab II

Continues the flight lab progression in the MSU aviation program to the second stage of the Instrument Pilot flight lab. The FAA requires each pilot to obtain their Instrument Pilot flight certificate to fly in instrument weather conditions. The course reviews and expands the classroom knowledge received in the Instrument Pilot Ground Course as well as the skills developed in AVIA 241. The training flights continue the building block approach to training with student pilots gradually obtaining the skills to fly in all instrument conditions and to pass an FAA administered practical examination.

Pre: AVIA 241

Fall, Spring, Summer

AVIA 250 (3) Commercial Pilot

A study of advanced aeronautical knowledge, including aerodynamics, aviation regulations, weather, visual and instrument navigation, and emergencies. The course meets, but is not limited to, FAR part 61.125 (a, 1-4). Satisfactory completion of this course may result in an endorsement for the FAA Commercial Pilot written exam.

Pre: AVIA 151, AVIA 240

Fall, Spring
AVIA 251 (2) Commercial Pilot Flight Lab
Prepares advanced flight students with the in-flight requirements needed to obtain the FAA Commercial Pilot’s Certificate.
Pre: AVIA 151, or equivalent
Fall, Spring

AVIA 252 (3) Commercial Pilot Helicopter Flight Lab
Prepares advanced flight students with the in-flight requirements needed to obtain the FAA Commercial Pilot Helicopter Certificate.
Pre: AVIA 152, AVIA 242
On-Demand

AVIA 253 (2) Commercial Pilot Flight Lab II
Continues the flight lab progression in the MSU aviation program. The FAA requires each pilot to obtain their Commercial Pilot flight certificate to be compensated for work as a pilot. This stage two course of the Commercial Pilot flight lab reviews and expands required classroom knowledge received in the Commercial Pilot Ground Course. The training flights use a building block approach to training with student pilots gradually obtaining the skills to fly the more difficult maneuvers and to pass an FAA administered practical examination.
Pre: AVIA 251
Fall, Spring, Summer

AVIA 270 (3) Helicopter Pilot
Study of Helicopter theory to meet FAA part 141 certification requirements for helicopter.
Pre: AVIA 150, AVIA 250, AVIA 260
On-Demand

AVIA 275 (3) Helicopter Flight Theory
This course covers all the knowledge areas required for the FAA helicopter private, instrument and commercial pilot certification at a deeper and more academic level.
Variable

AVIA 333 (3) Airline Operations
Designed to cover the complex area of operation techniques and problems confronting the airlines today. Entails a study of marketing research, passenger trends, feasibility route studies, etc.
Fall, Spring

AVIA 334 (4) Aviation Management
Provides an understanding of management and financial techniques related to aviation businesses. Generally accepted and proven business techniques are applied to the aviation setting.
Fall, Spring

AVIA 336 (3) Basic Aircraft Systems
Aircraft systems for light and medium category general aviation aircraft, includes the study of structure, control, electrical, fuel, environmental, landing gear, and engine systems. Examples of general aircraft category aircraft systems will be discussed from the pilot’s perspective.
Fall

AVIA 337 (3) Avionics
Principles of Avionics is an expanded course on the theory and Applications of Aviation Electronics for future pilots and students of aviation and aeronautics. The course highlights modern synthetic displays, navigation, automatic flight control, FMS, and other essential aircraft equipment.
Variable

AVIA 338 (3) Advanced Aircraft Systems
Hydraulic, pneumatic, electrical, pressurization, environmental, and other systems for large-transport category aircraft are covered. Also turbine engines, primary and secondary flight controls, and miscellaneous important systems are examined. Examples of systems in large transport-category jets will be discussed from the pilot operational perspective.

AVIA 339 (3) Aerospace Propulsion
The course provides basic principles of operation and components description of the traditional and modern propulsion systems used in atmospheric and space transportation vehicles. Reciprocating engines with propellers, turbine jet engines, and chemical rockets are covered.
Spring

AVIA 340 (3) Flight Operations
Introduces students to airline training, regulations, and flight management systems (FMS). Students will develop an understanding of airline operations as they experience an FAA Part 121 style basic indoctrination. Students will be trained on procedures, requirements, and limitations for airline operations through all phases of flight and ground in a simulated Advanced Qualifications Program (AQP) style course. Students will also develop technical and procedural knowledge of FMS.
Fall, Spring

AVIA 343 (3) Airport Management
Course provides students with an overview of airport management. Studies include the day-to-day operations of air carrier and general aviation airports as well as planning, design, construction, finance and public relations associated with airport management. Students are exposed to many career opportunities in this area. The course includes a case study of the Minneapolis/St. Paul metropolitan area airport system and several site visits.
Spring

AVIA 360 (3) Flight Instructor
A study of the fundamentals of instruction including the learning process, effective teaching evaluation, course development, lesson planning, and instructing techniques. The course meets, but is not limited to, FAR part 61.187 (a, 1-6). Satisfactory completion of this course may result in an endorsement for the FOI and CFI-A written exam.
Pre: AVIA 150, AVIA 240, AVIA 241, AVIA 250
Fall, Spring

AVIA 361 (1) Initial CFI-Airplane-Multiengine Flight Lab
Prepares advanced flight students for the in-flight requirements needed to obtain the FAA Multi-Engine Flight Instructor’s Certificate.
Pre: AVIA 251 and AVIA 241, or equivalent
Fall, Spring

AVIA 362 (1) Add-on CFI-A Single Engine Flight Lab
Prepares advanced flight students with the in-flight requirements needed to obtain the FAA Certified Flight Instructor’s Certificate.
Pre: AVIA 251 and AVIA 241, or equivalent
Fall, Spring

AVIA 363 (1) Initial CFI-Instrument Airplane-Multiengine Flight Lab
Prepares advanced flight students with the in-flight requirements needed to obtain the FAA Instrument Flight Instructor’s Certificate.
Pre: AVIA 251 and AVIA 241, or equivalent
Fall, Spring

AVIA 383 (1) Flight Instructor Helicopter Flight Lab
Prepares advanced flight students with the in-flight requirements needed to obtain the FAA Certified Flight Instructor Helicopter Certificate.
Pre: AVIA 252
On-Demand

AVIA 392 (1) Instrument Instructor Helicopter Flight Lab
Prepares advanced flight students with the in-flight requirements needed to obtain the FAA Instrument Helicopter Flight Instructor Certificate.
Pre: AVIA 242, AVIA 252
On-Demand

AVIA 432 (3) Aviation Law - General
To instruct the student relative to legal implications of aircraft ownership, leases, rentals, and overall aircraft operation. Emphasis is placed on the understanding of liability and negligence from the operator and pilot standpoints.
Fall
AVIA 435 (3) Aviation Law - Transactions
This course will take an in-depth look at several legal topics that touch the aviation industry. The course will use the case study method to look at several aviation-related cases, including commercial airline accidents, pilot certificate actions, airline security violation cases, international aviation law, and several other current legal matters that involve the airline industry. Pre: AVIA 432
Fall, Spring

AVIA 436 (3) Flight Operations & Procedures
Introduces advanced professional flight students to FAR Part 121 style standardized flight training in a regional jet. Course will include aircraft systems, procedures training, and techniques used in high performance turbine aircraft. Emphasis on standard operating procedures (SOP), crew resource management (CRM), and line oriented flight training (LOFT). Pre: AVIA 340
AVIA 437 (4) Aviation Safety
The understanding and implementation of safe operating procedures. Assists the student in arriving at proper decisions related to periods of stress when operating as pilot in command. Various FAA regulations and standard and safe operating procedures are also discussed. Fall, Spring

AVIA 442 (3) Fundamentals of Air Traffic Control
To provide the student with the basic knowledge of ATC as a career and the fundamentals necessary for FAA certification. Fall

AVIA 443 (3) Airline Dispatch
Introduces the workings of the complex system of air control in the US and abroad. Covers such subjects as radio communications, airspace classification, radar control, and operation as well as aircraft separation. Looks at present and future air traffic control systems. Spring

AVIA 445 (3) Aviation Human Factors
A study of various techniques designed to enhance management and leadership methods. Emphasizes decision-making and judgment skills as well as methods to improve effective communication and skills to develop a productive work environment for flight crew and other airline personnel. Fall, Spring

AVIA 450 (3) Professional Pilot Theory
This course is designed to develop students technical understanding of information and knowledge required for Air Transport Pilots. Students will participate in a capstone research project and present their findings in a research paper and oral presentation. Course completion requirements will include preparation for the FAA ATP written exam. Pre: AVIA 251, AVIA 340, AVIA 436 Coreq: AVIA 340, AVIA 436, AVIA 451 Fall, Spring

AVIA 451 (3) Professional Flight Course
Prepares students who desire careers as professional pilots. Emphasizes complete ground tutoring and flight instruction relating to instrument maneuvers, SOP’s, regulation interpretation, pilot discipline, and professional procedures. Crew resource management, LOFT, and turbine-transition flights in an advanced jet flight simulator are used. This course is taken in conjunction in the same semester as AVIA 450. Pre: AVIA 251 Coreq: AVIA 450 Fall, Spring

AVIA 452 (3) Professional Aviator Course
This is a stand-alone course designed for the person who is not an MSU aviation major. The course offers a complete jet aircraft transition training program. Summer

AVIA 455 (3) Aircraft Performance
The fundamental principles and calculation of the performance in various phases of flight: takeoff and land, climb and descent performance, maximum-range and maximum-endurance cruise, single-engine performance in multi-engine aircraft, standard atmosphere and basic subsonic and supersonic aerodynamics is covered. Pre: AVIA 201 Variable

AVIA 458 (3) Aeromedical Factors
Covers aeromedical factors that are essential for high-altitude flying aircraft. Hypoxia, hyperventilation, dysbarism, basic gas laws. Armstrong line, vision in flight, day and night. Pressurization systems, pressurized suits, danger of loss of cabin pressure, future HSCT and LEO commercial flights. Variable

AVIA 490 (1-10) Aviation Workshop
Coreq: ANTH 491 or ANTH 492 or ANTH 493 or ANTH 494 Variable

AVIA 497 (1-12) Aviation Internship
Supervised experience in business, industry, state or federal institutions. Fall, Spring

AVIA 499 (1-6) Individual Study in Aviation
Allows the student an individual course of study on an aviation topic to be arranged with the department. Fall, Spring

BIOCHEMISTRY

Biochemistry
College of Science, Engineering and Technology
Department of Chemistry & Geology
241 Ford Hall • 507-389-1963
Chair: Mary Hadley

Brian Groh, Michael J. Lasch, Rebecca Moen, Marie K. Pomije, Jeffrey R. Pribyl, Danaé Quirk Dorr, James Rife, Theresa Salerno, Lyudmyla Stackpool, Daniel Swart, John D. Thoemke, Trent Vorlicek

Biochemistry is a discipline which encompasses both biology and chemistry. This rapidly expanding science focuses on the study of the molecular aspects of living organisms. The tools and concepts of biochemistry are important as a foundation for careers in many areas of research and in medicine. Students considering a BA or BS degree in biochemistry should consult a biochemistry advisor for specific information regarding the program. This major is appropriate for students in pre-professional programs such as pre-dental, pre-medical, and pre-pharmacy programs.

POLICIES/INFORMATION

The first year of coursework for biochemistry majors should include two semesters of chemistry (CHEM 201, CHEM 202), MATH and at least one semester of Biology (BIOL 105). Organic Chemistry should be taken during the second year.
Admission to Major. Admission to a program is necessary before a student can enroll in 300-and 400-level courses. To be eligible for admission to the biochemistry program a student must have declared biochemistry as a first major, completed 32 credits, including BIOL 105 and BIOL 106 as well as CHEM 201 and CHEM 202 and achieved a minimum grade point average of 2.0. Students should also have an assigned biochemistry advisor with whom they have discussed the program.

GPA Policy. Students obtaining a major in biochemistry must maintain an overall GPA of 2.2 in all courses required for their selected program with no more than 4 credits of “D” work in chemistry or biochemistry courses.

Students must meet a residency requirement. This means that all students who wish to receive either the Biochemistry BA or the Biochemistry BS from Minnesota State Mankato must complete the biochemistry sequence which consists of CHEM 460, CHEM 461, CHEM 465 and CHEM 466 at Minnesota State Mankato. It is important that this sequence be taken during the third (junior) year for all majors.

Students who complete the requirements for the Biochemistry BS must submit a comprehensive research report in conjunction with completion of CHEM 498. Students are encouraged to contact Professors Rife, Salerno and Moen for details regarding the research report prior to enrolling in CHEM 498.

P/N Grading Policy. Courses leading to a major or minor in chemistry or biochemistry may not be taken on a P/N basis, except where P/N grading is mandatory.

The department is recognized by the American Chemical Society and offers a BS (Chemistry) major that is approved by that organization. The BS Biochemistry program follows the ASBMB recommended curriculum for a biochemistry and molecular biology undergraduate major. Anyone considering a biochemistry major should choose a biochemist as an advisor and consult that advisor often throughout the course of study.

**BIOCHEMISTRY BA**
Degree completion = 120 credits

**Required General Education**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 105</td>
<td>General Biology I (4)</td>
</tr>
<tr>
<td>CHEM 201</td>
<td>General Chemistry I (5)</td>
</tr>
</tbody>
</table>

**Major Common Core**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 106</td>
<td>General Biology II (4)</td>
</tr>
<tr>
<td>BIOL 211</td>
<td>Genetics (4)</td>
</tr>
<tr>
<td>BIOL 270</td>
<td>Microbiology (4)</td>
</tr>
<tr>
<td>BIOL 479</td>
<td>Molecular Biology (4)</td>
</tr>
<tr>
<td>CHEM 202</td>
<td>General Chemistry II (5)</td>
</tr>
<tr>
<td>CHEM 305</td>
<td>Analytical Chemistry (4)</td>
</tr>
<tr>
<td>CHEM 322</td>
<td>Organic Chemistry I (4)</td>
</tr>
<tr>
<td>CHEM 324</td>
<td>Organic Chemistry II (3)</td>
</tr>
<tr>
<td>CHEM 325</td>
<td>Organic Chemistry II Lab (1)</td>
</tr>
<tr>
<td>CHEM 340</td>
<td>Quantitative Skills for Chemistry and Biochemistry I (1)</td>
</tr>
<tr>
<td>CHEM 460</td>
<td>Biochemistry I (3)</td>
</tr>
<tr>
<td>CHEM 461</td>
<td>Biochemistry II (3)</td>
</tr>
<tr>
<td>CHEM 465</td>
<td>Biochemical Techniques I (1)</td>
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<tr>
<td>CHEM 466</td>
<td>Biochemical Techniques II (2)</td>
</tr>
<tr>
<td>CHEM 474</td>
<td>Chromatography (2)</td>
</tr>
</tbody>
</table>

Capstone

(choose 1 credit from either CHEM 494 or CHEM 495)

- CHEM 494 Biochemistry Capstone Experience (1)
- CHEM 495 Senior Seminar (1)

**Major Restricted Electives**

Upper Division Electives

Choose a minimum of 9 credits of upper division electives from either BIOL or CHEM courses. These electives must be approved by the Biochemistry Advisor. Courses used in the core cannot count as electives.

- BIOL 300 - BIOL 499
- CHEM 300 - CHEM 499

**Other Graduation Requirements**

Choose at least 2 additional upper division credits to meet graduation requirements.

**Required for Bachelor of Arts (BA) degree ONLY:** Language (8 credits)

**Required Minor:** None.

**BIOCHEMISTRY BS**

**Required General Education**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 105</td>
<td>General Biology I (4)</td>
</tr>
<tr>
<td>CHEM 201</td>
<td>General Chemistry I (5)</td>
</tr>
</tbody>
</table>

**Math courses (choose 7-8 credits)**

- MATH 121 Calculus I (4)
- MATH 122 Calculus II (4)
- STAT 154 Elementary Statistics (3)

**Major Common Core**

<table>
<thead>
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<tr>
<td>CHEM 325</td>
<td>Organic Chemistry II Lab (1)</td>
</tr>
<tr>
<td>CHEM 340</td>
<td>Quantitative Skills for Chemistry and Biochemistry I (1)</td>
</tr>
<tr>
<td>CHEM 341</td>
<td>Quantitative Skills for Chemistry and Biochemistry II (1)</td>
</tr>
<tr>
<td>CHEM 440</td>
<td>Physical Chemistry I (3)</td>
</tr>
<tr>
<td>CHEM 450</td>
<td>Physical Chemistry Laboratory I (1)</td>
</tr>
<tr>
<td>CHEM 460</td>
<td>Biochemistry I (3)</td>
</tr>
<tr>
<td>CHEM 461</td>
<td>Biochemistry II (3)</td>
</tr>
<tr>
<td>CHEM 465</td>
<td>Biochemical Techniques I (1)</td>
</tr>
<tr>
<td>CHEM 466</td>
<td>Biochemical Techniques II (2)</td>
</tr>
<tr>
<td>CHEM 474</td>
<td>Chromatography (2)</td>
</tr>
<tr>
<td>CHEM 494</td>
<td>Biochemistry Capstone Experience (1)</td>
</tr>
</tbody>
</table>

(2 credits of CHEM 498 are required for the major core)

**CHEM 498 Undergraduate Research (1-6)**

**Major Restricted Electives**

Upper Division Electives

Choose a minimum of 7 credits from upper division Biology and Chemistry courses with approval from a Biochemistry advisor. Courses used in the core cannot count as electives.

- BIOL 300 - BIOL 499
- CHEM 300 - CHEM 499

**Phys (choose 8 credits from either the Principles of Physics sequence or the General Physics courses noted below)**

- PHYS 211 Principles of Physics I (4)
- PHYS 212 Principles of Physics II (4)
- PHYS 221 General Physics I (4)
- PHYS 223 General Physics III (3)
- PHYS 233 General Physics III Laboratory (1)

**Required Minor:** None.
Biology

College of Science, Engineering & Technology
Department of Biological Sciences
242 Trafion Science Center S • 507-389-2786
Website: www.cset.mnsu.edu/biology/

Chair: Penny Knoblich, DVM, Ph.D.
Lois Anderson, M.S.; Michael Bentley, Ph.D.; Rachel Cohen, Ph.D.; Bradley Cook, Ph.D.; Shannon Fisher, Ph.D.; Geoff Goellner, Ph.D.; Marilyn Hart, Ph.D.; John D. Krezen, Ph.D.; Bethann Lavoie, Ph.D.; Alison Mahoney, Ph.D.; Gregg Marg, Ph.D.; Steven Mercurio, Ph.D.; Beth Proctor, Ph.D.; Christopher Ruhland, Ph.D.; Timothy Secott, Ph.D.; David Sharlin, Ph.D.; Robert Sorensen, Ph.D.; Daniel Toma, Ph.D.; Dorothy Wrigley, Ph.D.; Brittany Ziegler, Ph.D.

The Department of Biological Sciences offers programs for students preparing for careers in education, laboratory and field research, biotechnology, environmental sciences, clinical laboratory sciences, cytotechnology, food science technology and pre-professional programs including pre-medicine, and pre-veterinary medicine.

The biology major offers a core program intended to develop a common background in biology and additional upper level courses designed to provide specialized options. Students typically take a broad based general biology major or an emphasis in one of the following: general biology, cytotechnology, ecology, biomedical sciences, microbiology, plant science, toxicology, or zoology. Programs in biotechnology, environmental sciences, food science technology and science teaching are also offered.

POLICIES/INFORMATION

Admission to Major is granted by the department. Admission requirements are 32 earned semester hours including BIOL 105, BIOL 106, BIOL 211, and CHEM 201 with a grade of “C” or better; completed General Education Goal Area 4 (Mathematics); completed General Education Goal Area 1, Part A (English Composition); and a minimum cumulative GPA of 2.2, with a cumulative GPA in Biology courses of 2.0.

Residency requirement for the Major. At least 50% of courses 300 level and up that are required for the major must be taken at Minnesota State University, Mankato.

Graduation with a Biology Major requires a minimum cumulative GPA of 2.0; and a minimum cumulative GPA in Biology courses of 2.0.

P/N Grading Policy. All courses leading to a major or a minor in biology must be taken for letter grades. Any exception to this policy must be approved by the chairperson of the department.

Refer to the College regarding required advising for students on academic probation.

GPA Policy. In programs where not specifically noted, a minimum GPA of 2.0 must be maintained in biological sciences. A minimum GPA of 2.6 in the sciences must be maintained to meet student teaching requirements.

Several biology scholarships are available for entering first year students and currently enrolled Minnesota State Mankato students who meet the requirements. Application deadline is March 31 of each year.

The Department of Biological Sciences offers a well-balanced summer school program. For details concerning the courses being offered consult the summer catalog.

BIOLOGY BS

Degree completion = 120 credits

Students may elect to complete the general non-specialized biology major or select one of the alternative specialized options or emphases.

Required General Education

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 105</td>
<td>General Biology I (4)</td>
<td></td>
</tr>
<tr>
<td>CHEM 201</td>
<td>General Chemistry I (5)</td>
<td></td>
</tr>
<tr>
<td>ENG 271W</td>
<td>Technical Communication (4)</td>
<td></td>
</tr>
</tbody>
</table>

Major Emphasis: General, Non-Specialized

Students may elect to complete the general, non-specialized biology major or select one of the alternative specialized emphases. All emphases require BIOL 105, BIOL 106, BIOL 211, CHEM 201, and ENG 271W.

Math Requirement (choose 3-4 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 113</td>
<td>Trigonometry (3)</td>
<td></td>
</tr>
<tr>
<td>MATH 115</td>
<td>Precalculus Mathematics (4)</td>
<td></td>
</tr>
<tr>
<td>MATH 121</td>
<td>Calculus I (4)</td>
<td></td>
</tr>
</tbody>
</table>

Physics Requirement (choose 3-4 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 101</td>
<td>Introductory Physics (3)</td>
<td></td>
</tr>
<tr>
<td>PHYS 211</td>
<td>Principles of Physics I (4)</td>
<td></td>
</tr>
<tr>
<td>PHYS 221</td>
<td>General Physics I (4)</td>
<td></td>
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</table>

Statistics Requirement (choose 3 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>HLTH 475</td>
<td>Biostatistics (3)</td>
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</tr>
<tr>
<td>STAT 154</td>
<td>Elementary Statistics (3)</td>
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</table>

Emphasis Common Core (choose 20 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 215</td>
<td>General Ecology (4)</td>
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</tr>
<tr>
<td>BIOL 301</td>
<td>Evolution (2)</td>
<td></td>
</tr>
<tr>
<td>BIOL 320</td>
<td>Cell Biology (4)</td>
<td></td>
</tr>
<tr>
<td>CHEM 202</td>
<td>General Chemistry II (5)</td>
<td></td>
</tr>
<tr>
<td>CHEM 322</td>
<td>Organic Chemistry I (4)</td>
<td></td>
</tr>
<tr>
<td>CHEM 323</td>
<td>Supplemental Organic Functional Group Chemistry (1)</td>
<td></td>
</tr>
</tbody>
</table>

Physiology Requirement--Choose ONLY ONE of the four following pairs of courses (6 to 9 credits total). Emphasis Restricted Electives plus Emphasis Unrestricted Electives must total at least 18 credits to fulfill the 40-credit major requirement.

**Human**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 220</td>
<td>Human Anatomy (4)</td>
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</tr>
<tr>
<td>BIOL 330</td>
<td>Principles of Human Physiology (4)</td>
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</tbody>
</table>

**Plant**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>BIOL 217</td>
<td>Plant Science (4)</td>
<td></td>
</tr>
<tr>
<td>BIOL 441</td>
<td>Plant Physiology (4)</td>
<td></td>
</tr>
</tbody>
</table>

**Microbiology**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 270</td>
<td>Microbiology (4)</td>
<td></td>
</tr>
<tr>
<td>BIOL 476</td>
<td>Microbial Physiology and Genetics (5)</td>
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</table>

**Animal**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>BIOL 316</td>
<td>Animal Diversity (3)</td>
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</tr>
<tr>
<td>BIOL 431</td>
<td>Comparative Animal Physiology (3)</td>
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</tbody>
</table>

Emphasis Unrestricted Electives (choose 9 - 12 credits)

(choose additional upper-division courses so you have a total of 40 credits in Biology. At least 7 of these elective credits must be from courses with a laboratory component.)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 300</td>
<td>- BIOL 499</td>
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</tr>
<tr>
<td>CHEM 360</td>
<td>Principles of Biochemistry (4)</td>
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<tr>
<td>CHEM 460</td>
<td>Biochemistry I (3)</td>
<td></td>
</tr>
<tr>
<td>CHEM 465</td>
<td>Biochemical Techniques I (1)</td>
<td></td>
</tr>
</tbody>
</table>

Required Minor: None

Major Emphasis: Biomedical Sciences

The purpose of this option is to prepare the student for a career in biomedicine. The emphasis fulfills the science course requirements for most medical, osteopathic, dental, and chiropractic schools as well as the science course requirements for graduate education in biomedicine. If you are interested in applying for a specific medical school, please contact that school for their specific requirements. All emphases require BIOL 105, BIOL 106, BIOL 211, CHEM 201, and ENG 271W.

Emphasis Required General Education (4 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>PHYS 211</td>
<td>Principles of Physics I (4)</td>
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</table>

Math Requirement (choose 3-4 credits)

<table>
<thead>
<tr>
<th>Course</th>
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</thead>
<tbody>
<tr>
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</tr>
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<td>MATH 121</td>
<td>Calculus I (4)</td>
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</tbody>
</table>
Emphasis Common Core (choose 37 credits)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 220</td>
<td>Human Anatomy</td>
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<td>Cell Biology</td>
<td>4</td>
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<tr>
<td>BIOL 330</td>
<td>Principles of Human Physiology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 424</td>
<td>Developmental Biology</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 202</td>
<td>General Chemistry II</td>
<td>5</td>
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<tr>
<td>CHEM 323</td>
<td>Supplemental Organic Functional Group Chemistry</td>
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</tr>
<tr>
<td>PHYS 212</td>
<td>Principles of Physics II</td>
<td>4</td>
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</table>

Emphasis Restricted Electives

**Biochemistry (choose 4 credits)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 360</td>
<td>Principles of Biochemistry</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 460</td>
<td>Biochemistry I</td>
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</tr>
<tr>
<td>CHEM 465</td>
<td>Biochemical Techniques I</td>
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</table>

**Additional Math/Stats Requirement (choose 3-4 credits)**

<table>
<thead>
<tr>
<th>Course Code</th>
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</thead>
<tbody>
<tr>
<td>MATH 121</td>
<td>Calculus I</td>
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</tr>
<tr>
<td>STAT 354</td>
<td>Concepts of Probability &amp; Statistics</td>
<td>3</td>
</tr>
</tbody>
</table>

**Emphasis Unrestricted Electives (choose 9 credits)**

At least one course must have a laboratory component. Choose a maximum of 4 credits from BIOL 497 or BIOL 499.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 324</td>
<td>Neurobiology</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 410</td>
<td>Global Change Biology</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 417</td>
<td>Biology of Aging and Chronic Diseases</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 420</td>
<td>Diagnostic Parasitology</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 430</td>
<td>Hematology/Introduction to Immunology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 433</td>
<td>Cardiovascular Physiology</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 435</td>
<td>Histology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 438</td>
<td>General Endocrinology</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 452</td>
<td>Biological Instrumentation</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 460</td>
<td>Introduction to Toxicology</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 466</td>
<td>Principles of Pharmacology</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 474</td>
<td>Immunology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 475</td>
<td>Medical Microbiology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 479</td>
<td>Molecular Biology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 497</td>
<td>Internship I (1-12)</td>
<td></td>
</tr>
<tr>
<td>BIOL 499</td>
<td>Individual Study (1-4)</td>
<td></td>
</tr>
</tbody>
</table>

Required Minor: None.

**Major Emphasis: Biology Cytotechnology**

A cytotechnologist is an allied health professional and is involved in the microscopic study of cells for evidence of disease and cancer. Cytotechnologists are trained to accurately identify precancerous, malignant, and infectious conditions using cytological techniques. The “Pap test” (an evaluation of cells from the uterine cervix) is the best known test in this field. The four-year curriculum consists of three years spent at the university completing the required courses and the fourth year is a 32 credit internship spent in professional education. Agencies participating in the cytotechnology program include, but are not limited to: Mayo School of Health Sciences in Rochester, MN. Admission into the fourth year hospital clinical internship is competitive. Therefore, admission to the program does not ensure placement into the fourth year internship. The BS degree is awarded by the university after successful completion of the internship year. Graduates are then eligible to take the certifying examination. Cytotechnologists are employed in hospital laboratories, universities, and private laboratories. Adjunct faculty at the clinical sites include: Kara Hansing, CT (ASCP). Students accepted into the clinical internship will be responsible for: Proof of Medical / Hospitalization / Health Insurance; Health Physical Exam; Tuberculosis (TB) testing; and Proof of Immunization which may include the following: Hepatitis B, Measles, Mumps, Rubella, Tetanus, Chickenpox (Varicella), and Influenza. Students may also be required to submit to Drug Screen Testing. Internship sites are required by law to do Background Checks on all students admitted to their cytotechnology programs. All emphases require BIOL 105, 106, 211, CHEM 201, and ENG 271W.

**Emphasis Required General Education Courses (choose 4 credits)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 112</td>
<td>College Algebra</td>
<td>4</td>
</tr>
<tr>
<td>MATH 113</td>
<td>Trigonometry</td>
<td>3</td>
</tr>
<tr>
<td>MATH 115</td>
<td>Precalculus Mathematics</td>
<td>4</td>
</tr>
<tr>
<td>MATH 121</td>
<td>Calculus I</td>
<td>4</td>
</tr>
</tbody>
</table>

**Emphasis Required Support Courses (choose 13 credits)**

Choose from the following to total at least 13 additional credits in Chemistry.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 202</td>
<td>General Chemistry II</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 305</td>
<td>Analytical Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 322</td>
<td>Organic Chemistry I</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 323</td>
<td>Supplemental Organic Functional Group Chemistry</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 360</td>
<td>Principles of Biochemistry</td>
<td>4</td>
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</tbody>
</table>

**Emphasis Core Courses (choose 16 credits)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>BIOL 220</td>
<td>Human Anatomy</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 270</td>
<td>Microbiology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 320</td>
<td>Cell Biology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 330</td>
<td>Principles of Human Physiology</td>
<td>4</td>
</tr>
</tbody>
</table>

**Emphasis Restricted Electives (choose 3-4 credits)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>BIOL 479</td>
<td>Molecular Biology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 424</td>
<td>Developmental Biology</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 430</td>
<td>Hematology/Introduction to Immunology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 435</td>
<td>Histology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 479</td>
<td>Molecular Biology</td>
<td>4</td>
</tr>
</tbody>
</table>

**Professional Education (choose 32 credits)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 493</td>
<td>Cytotechnology Clinical Internship I (1-12)</td>
<td></td>
</tr>
<tr>
<td>BIOL 494</td>
<td>Cytotechnology Clinical Internship II (1-12)</td>
<td></td>
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<tr>
<td>BIOL 495</td>
<td>Cytotechnology Clinical Internship III (1-12)</td>
<td></td>
</tr>
<tr>
<td>BIOL 496</td>
<td>Cytotechnology Clinical Internship IV (1-12)</td>
<td></td>
</tr>
</tbody>
</table>

**Major Emphasis: Ecology**

Ecology is the study of relationships between organisms and their environment. The emphasis consists of fundamental courses in biology and related sciences, mid-level study in genetics, evolution, and statistics, and an array of upper-division electives that emphasize fieldwork, data analysis, and writing. Many students collaborate with faculty in their research or conduct independent research projects. Career titles available with this emphasis include ecologist, naturalist, wildlife biologist, natural resource manager, fish biologist, marine biologist, conservation training or graduate school. For more information about the emphasis and the ecology faculty, select “ecology” at the department page (see www.mnsu.edu/dep/biology). All emphases require BIOL 105, 106, BIOL 211, CHEM 201, and ENG 271W.

**Emphasis Common Core (choose 17 credits)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>BIOL 215</td>
<td>General Ecology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 301</td>
<td>Evolution (2)</td>
<td>2</td>
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<tr>
<td>BIOL 408</td>
<td>Vertebrate Ecology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 443</td>
<td>Plant Ecology</td>
<td>4</td>
</tr>
<tr>
<td>HLTH 475</td>
<td>Biostatistics</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 111</td>
<td>Chemistry of Life Processes</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 202</td>
<td>General Chemistry II</td>
<td>5</td>
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</table>

**Emphasis Required General Education Courses: Physics**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>PHYS 211</td>
<td>Principles of Physics I (4)</td>
<td>4</td>
</tr>
<tr>
<td>MATH (choose 3-4 credits)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MATH 113</td>
<td>Trigonometry</td>
<td>3</td>
</tr>
<tr>
<td>MATH 115</td>
<td>Precalculus Mathematics</td>
<td>4</td>
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</tbody>
</table>

**Emphasis Restricted Electives: Physiology Requirement (COMPLETE ONE GROUP)**

**Animal Physiology**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 516</td>
<td>Animal Diversity</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 431</td>
<td>Comparative Animal Physiology</td>
<td>3</td>
</tr>
</tbody>
</table>

**Microbial Physiology**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>BIOL 270</td>
<td>Microbiology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 476</td>
<td>Microbial Physiology and Genetics</td>
<td>5</td>
</tr>
</tbody>
</table>
Biology continued

Plant Physiology
BIOL 217 Plant Science (4)
BIOL 441 Plant Physiology (4)

Emphasis Unrestricted Electives
Choose courses to total 40 credits in biology. Courses other than those listed are allowed with consent of your advisor. A limit of 4 total credits is allowed from BIOL 492, BIOL 497, and BIOL 499 combined.

BIOL 320 Cell Biology (4)
BIOL 404 Wetlands (4)
BIOL 405 Fisheries Biology (3)
BIOL 409 Advanced Field Ecology (4)
BIOL 410 Global Change Biology (3)
BIOL 412 Soil Ecology (4)
BIOL 431 Comparative Animal Physiology (3)
BIOL 432 Lake Ecology (4)
BIOL 436 Animal Behavior (4)
BIOL 441 Plant Physiology (4)
BIOL 442 Flora of Minnesota (4)
BIOL 460 Introduction to Toxicology (3)
BIOL 472 Microbial Ecology and Bioremediation (4)
BIOL 476 Microbial Physiology and Genetics (5)
BIOL 479 Medical Microbiology (4)
BIOL 478 Medical Microbiology and Sanitation (4)
BIOL 479 Medical Microbiology (4)
BIOL 497 Internship I (1-12)
BIOL 499 Individual Study (1-4)

Recommended General Electives (choose 0-7 credits)
HLTH 475 Biostatistics (3)
MATH 121 Calculus I (4)

Required Minor: None.

Major Emphasis: Microbiology
Microorganisms impact every area of life. The emphasis exposes students to a variety of topics in microbiology and teaches numerous skills needed to work with microorganisms. Training in microbiology prepares students for employment in industry (ex. quality assurance, vaccine production) and government (ex. laboratory technicians). Currently, employment opportunities abound in applied areas of microbiology such as biological products/pharmaceuticals, food processing, environmental assessment. It also prepares a student for continuing education in microbiology, immunology, and cell and molecular biology. Students may elect to work on research projects with faculty who work in the areas of food microbiology, immunology, microbial genetics, and molecular biology. All emphases require BIOL 105, BIOL 106, BIOL 211, CHEM 201, and ENG 271W.

Math Requirement (choose 3-4 credits)
MATH 112 College Algebra (4)
MATH 113 Trigonometry (3)
MATH 115 Precalculus Mathematics (4)
MATH 121 Calculus I (4)

Emphasis Common Core (choose 18 credits)
BIOL 270 Microbiology (4)
CHEM 202 General Chemistry II (5)
CHEM 305 Analytical Chemistry (4)
CHEM 322 Organic Chemistry I (4)
CHEM 323 Supplemental Organic Functional Group Chemistry (1)

Emphasis Restricted Electives (choose 4-5 credits)
BIOL 476 Microbial Physiology and Genetics (5)
CHEM 360 Principles of Biochemistry (4)
CHEM 460 Biochemistry I (3)
CHEM 465 Biochemical Techniques I (1)

Emphasis Unrestricted Electives (choose 25 credits)
BIOL 476, CHEM 360, CHEM 460, and CHEM 465 can satisfy this category IF they are not used in the Emphasis Restricted Electives.

Recommended Support Courses
IT 100 Introduction to Computing and Applications (4)
MATH 121 Calculus I (4)

Required Minor: None.

Major Emphasis: Plant Science
The Plant Science emphasis includes the study of cells, genetics, anatomy, physiology, taxonomy, and ecology of terrestrial and aquatic vascular plants, mosses, algae and fungi. The courses emphasizes plant structure and function, diversity, evolutionary and anatomical adaptations and interactions between plants and their environment. An emphasis in plant sciences prepares undergraduate students for careers in education, biotechnology, field biology, pharmaceutical companies and government agencies. In addition, the emphasis prepares students for Master’s and Doctoral degrees in Plant Science. All emphases require BIOL 105, BIOL 106, BIOL 211, CHEM 201, and ENG 271W.

Math Requirement (choose 3-4 credits)
MATH 113 Trigonometry (3)
MATH 115 Precalculus Mathematics (4)

Chemistry Requirement (choose one course)
CHEM 111 Chemistry of Life Processes (5)
CHEM 202 General Chemistry II (5)

Statistics Requirement (choose one course)
HLTH 475 Biostatistics (3)
STAT 154 Elementary Statistics (3)

Emphasis Common Core
PHYS 211 Principles of Physics I (4)

Emphasis Restricted Electives

Recommended General Electives (choose 0-7 credits)
HLTH 475 Biostatistics (3)
MATH 121 Calculus I (4)

Required Minor: None.
**Major Emphasis: Toxicology**
Toxicology is the study of the harmful effects of chemicals, radiation, and other stressors on biological systems. This is a wide-ranging course of study, allowing students to connect their background on chemistry, biology, physics, mathematics, etc. to understand all aspects of how an exposure may or may not yield a toxic result. Then students can do elementary risk assessment and environmental or medical analyses. The purpose of this emphasis is to train students in the theory and hands-on research techniques of an interdisciplinary biological science at the undergraduate level in a field where there are few programs in the United States. Since toxins can be antibiotics, antiviral, or other chemotherapeutic medications, antidotes, agricultural chemicals, industrial chemicals, radiation, or just stressors such as poor ergonomics, graduates can and have proceeded into research and testing of pharmaceuticals, pesticides, and environmental toxicology in industry, government, or academic institutions. Additionally, training in risk assessments leads to additional opportunities for statistical modeling, which is employed in the areas mentioned above and industrial hygiene. All emphases require BIOL 105, BIOL 106, BIOL 211, CHEM 201, and ENG 271W.

**Emphasis Required General Education**
- **MATH 121** Calculus I (4)
- **PHYS 211** Principles of Physics I (4)

**Emphasis Common Core**
- **BIOL 215** General Ecology (4)
- **BIOL 220** Human Anatomy (4)
- **BIOL 270** Microbiology (4)
- **BIOL 330** Principles of Human Physiology (4)
- **BIOL 460** Introduction to Toxicology (3)
- **BIOL 461** Environmental Toxicology (4)
- **BIOL 462** Toxicology Seminar (1)
- **BIOL 464** Methods of Applied Toxicology (3)
- **BIOL 465** Applied Toxicology Project (3)
- **BIOL 466** Principles of Pharmacology (3)
- **BIOL 467** Industrial Hygiene (3)
- **CHEM 202** General Chemistry II (5)
- **CHEM 305** Analytical Chemistry (4)
- **CHEM 322** Organic Chemistry I (4)
- **CHEM 324** Organic Chemistry II (3)
- **CHEM 460** Biochemistry I (3)
- **CHEM 461** Biochemistry II (3)
- **CHEM 465** Biochemical Techniques I (1)
- **CHEM 466** Biochemical Techniques II (2)
- **HLTH 475** Biostatistics (3)

**Required Minor: None**

**Major Emphasis: Zoology**
Zoology is a major branch of the biological sciences that involves the study of animals. Study in this area focuses on organismal diversity, animal structures and the functions, genetics, development, evolution, behavior, and ecological interactions. Occupations that may be available to graduate include: Animal Husbandry, Museum/Zoo Guide, Animal Laboratory Technician, Animal Trainer, Pest Control Technician, Museum Curator, Entomologist, Environmental Consultant, Field Researcher, Science Writer, Physician, Veterinarian, Wildlife Rehabilitator, Zoo Keeper, and Zooologist. Advanced training in professional or graduate schools is required in many of these areas and acceptance for advanced training is competitive. Success in this career field typically requires: a thorough knowledge of general biology, the ability to work and relate with animals, proficiency in reading and writing and the ability to collect and analyze data, and an interest in problem solving and decision making. All emphases require BIOL 105, BIOL 106, BIOL 211, CHEM 201, and ENG 271W.

**Emphasis Required General Education** (choose 8 credits)
- **MATH 112** College Algebra (4)
- **MATH 113** Trigonometry (3)
- **MATH 115** Precalculus Mathematics (4)
- **PHYS 211** Principles of Physics I (4)

**Emphasis Core Courses** (choose 19 credits)
- **BIOL 215** General Ecology (4)
- **BIOL 301** Evolution (2)
- **BIOL 316** Animal Diversity (3)
- **BIOL 408** Vertebrate Ecology (4)
- **BIOL 424** Developmental Biology (3)
- **BIOL 431** Comparative Animal Physiology (3)

**Emphasis Restricted Electives** (choose 6-7 credits)
- **BIOL 420** Diagnostic Parasitology (3)
- **BIOL 421** Entomology (3)
- **BIOL 436** Animal Behavior (4)
- **BIOL 438** General Endocrinology (3)

**Emphasis Unrestricted Electives** (choose 6 credits)
Other courses may apply with advisor’s consent. A MAXIMUM of four credits may be used from BIOL 492, BIOL 497, and BIOL 499 combined.
- **BIOL 320** Cell Biology (4)
- **BIOL 403** Conservation Biology (3)
- **BIOL 409** Advanced Field Ecology (4)
- **BIOL 410** Global Change Biology (3)
- **BIOL 412** Soil Ecology (4)
- **BIOL 420** Diagnostic Parasitology (3)
- **BIOL 435** Histology (4)
- **BIOL 438** General Endocrinology (3)
- **BIOL 460** Introduction to Toxicology (3)
- **BIOL 472** Microbial Ecology and Bioremediation (4)
- **BIOL 479** Molecular Biology (4)
- **BIOL 494** Honors Research (1-3)
- **BIOL 497** Internship I (1-12)
- **BIOL 499** Individual Study (1-4)

**Emphasis Required Support Courses**
- **Chemistry** (choose one)
  - **CHEM 111** Chemistry of Life Processes (5)
  - **CHEM 202** General Chemistry II (5)
- **Statistics** (choose one)
  - **HLTH 475** Biostatistics (3)
- **STAT 154** Elementary Statistics (3)

**Recommended Support Courses**
- **IT 100** Introduction to Computing and Applications (4)
- **MATH 121** Calculus I (4)

**Required Minor: None**

**LIFE SCIENCE TEACHING BS**
See the SCIENCE TEACHING section of this catalog.

**BIOLOGY MINOR**

**Minor Core**
- **BIOL 106** General Biology II (4)
- **BIOL 211** Genetics (4)
  (choose 4 credits)
- **BIOL 105** General Biology I (4)
- **BIOL 105W** General Biology I (4)

**Minor Elective**
In addition to the course chosen from the list below add any 200-level or above biology course to total 17 credits in the minor.
  (choose one course from the following)
- **BIOL 215** General Ecology (4)
- **BIOL 217** Plant Science (4)
- **BIOL 220** Human Anatomy (4)
- **BIOL 270** Microbiology (4)
COURSE DESCRIPTIONS

BIOL 100 (4) Our Natural World
Introductory course designed for students not majoring in science. Focuses on basic biological principles with special emphasis on the human species. Includes scientific problem solving, biodiversity, human and social aspects of biology, ecology, cellular processes and organ function, human reproduction, pre-natal development, and heredity. Lecture, laboratory, and small group discussions.
Fall, Spring

GE-3

BIOL 101 (2–4) Biological Perspectives
Students focus on specific biological perspectives, including environmental science, biology of women, biotechnology, human heredity, etc. May be repeated for credit under different sub-titles.
Fall, Spring

BIOL 102 (3) Biology of Women
An introduction to biological topics of special interest to women with emphasis on anatomic and physiologic changes over the course of a woman’s lifetime. Designed for students not majoring in science. Presents fundamental biologic concepts within this specialized context and provides opportunity to collect, evaluate, and analyze data.
Fall, Spring

BIOL 103W (3) Introduction to Biotechnology
An introductory course designed for students not majoring in science. Focuses on basic biological principles as applied to biotechnology. Includes basic natural science principles, scientific problem solving, and human and social aspects of biotechnology. Lecture, laboratory, and small group discussions.
Fall

BIOL 105W (4) Introduction to Biotechnology
An introductory course designed for students not majoring in science. Focuses on basic biological principles as applied to biotechnology. Includes basic natural science principles, scientific problem solving, and human and social aspects of biotechnology. Lecture, laboratory, and small group discussions.
Fall

BIOL 105 (4) General Biology I
Study of biological processes at the suborganismal level including cell chemistry, metabolism, reproduction, genetics, and complex tissue physiology. Laboratory and discussion sessions stress problem solving and experimental design.
Fall, Spring

GE-3

BIOL 105W (4) General Biology I
Study of biological processes at the suborganismal level including cell chemistry, metabolism, reproduction, genetics, and complex tissue physiology. Laboratory and discussion sessions stress problem solving and experimental design.
Fall, Spring

BIOL 105W (4) General Biology I
Study of biological processes at the suborganismal level including cell chemistry, metabolism, reproduction, genetics, and complex tissue physiology. Laboratory and discussion sessions stress problem solving and experimental design.
Fall, Spring

BIOL 106 (4) General Biology II
Study of biological processes at the organismal level including a survey of life forms (viruses, bacteria, protists, fungi, plants, and animals), their evolution, and ecology. Laboratory and discussion sessions stress problem solving and experimental design.
Pre: BIOL 105
Fall, Spring

BIOL 106W (4) General Biology II
Study of biological processes at the organismal level including a survey of life forms (viruses, bacteria, protists, fungi, plants, and animals), their evolution, and ecology. Laboratory and discussion sessions stress problem solving and experimental design.
Pre: BIOL 105
Fall, Spring

BIOL 106 (4) General Biology II
An introduction to the health care profession with special emphasis on clinical laboratory personnel. Course includes presentations by professionals in some of the major health care fields, especially medical technology. Includes lectures, field observations.
Spring

BIOL 175 (1) Orientation to Clinical Laboratory Science
An introduction to the health care profession with special emphasis on clinical laboratory personnel. Course includes presentations by professionals in some of the major health care fields, especially medical technology. Includes lectures, field observations.
Spring

BIOL 211 (4) Genetics
Introduction to genetic analysis. Topics covered include those both classical and modern genetics: population genetics, molecular genetics, genetic manipulation of organisms and selection. Central to this course will be the primacy of the trait as the object of genetics and the development/refinement of the concept of the gene. Lab included.
Pre: BIOL 105, BIOL 106, and MATH 112
Fall, Spring, Summer

BIOL 215 (4) General Ecology
Principles of the study of relationships between organisms and the environment. Topics include flow of energy and materials, organism-level interactions, growth and evolution of populations, and community ecology. Field trips to prairie, lake, stream, and forest communities, training in data collection and analysis, use of equipment, and report writing. Lab included.
Pre: BIOL 105 and BIOL 106 or consent
Fall

BIOL 217 (4) Plant Science
Biology of plants including unique features of plant cells, life histories, metabolism, anatomy, physiology, and ecology. The course emphasizes plants’ remarkable adaptations to their environments, their diversity, and the vital roles they play in ecological interactions. For biology and environmental science majors and minors. Lab included.
Pre: BIOL 105 and BIOL 106 or consent
Spring

BIOL 220 (4) Human Anatomy
Systems approach to the structure of the human body. The course is designed for students majoring in biology or health related programs. Lab included.
Fall, Spring

BIOL 270 (4) Microbiology
An introduction to the general principles and methods used in the study of microorganisms. Lab included.
Pre: One BIOL course and one semester of chemistry from among CHEM 104, CHEM 106, CHEM 111, or CHEM 201
Fall, Spring, Summer

BIOL 283 (1) MAX Scholar Seminar
This class provides MAX scholars with an opportunity to explore a set of topics related to achieving success in academic, professional and personal realms. Speakers will include faculty, graduate students, visiting researchers and industry members as well as student participants. NOTE: Credit does not apply to any major.
Pre: Recipient of a MAX scholarship or instructor consent.
Fall, Spring

BIOL 301 (2) Evolution
Evolution is a unifying theory of biology. Students are provided the history of evolutionary thought and the Darwinian revolution, evidence for evolution, mechanics of evolution, and an array of special topics such as speciation, molecular evolution, conservation, and extinction. Readings will include book chapters and journal articles. Lecture/discussion.
Pre: BIOL 105, BIOL 106, BIOL 211
Spring

BIOL 310 (4) Basics of Human Physiology
Principles of functions of human cells, organs, and systems with an emphasis on organ/system interactions. Designed for majors that do not require a strong medical and research emphasis. Includes an active learning laboratory to facilitate learning the complex lecture material.
Pre: BIOL 220, CHEM 104 or CHEM 106 or CHEM 111 or CHEM 201
Fall, Spring, Summer

BIOL 316 (3) Animal Diversity
A comprehensive phylogenetic survey of both invertebrate and vertebrate animals. Emphasis on evolutionary relationships among phyla, the evolution of organ systems, animal organization and function, animal adaptations, and zoogeographic considerations. Research and inquiry of animal unity and diversity will include using the Internet. Lab included.
Pre: BIOL 105 and BIOL 106
Fall

BIOL 320 (4) Cell Biology
An examination of eukaryotic cellular structure, organization and physiology. Lab included.
Pre: BIOL 105 and BIOL 106, BIOL 211
Fall
BIOLOGY CONTINUED

BIOL 324 (3) Neurobiology
Basic anatomy and physiology of the nervous system. The course is designed for students majoring in biology, psychology or health related programs.
Pre: BIOL 220 Fall

BIOL 330 (4) Principles of Human Physiology
Principles of functions of human cells, organs, and systems with an emphasis on organ/system interactions. This course is designed for students majoring in biology, chemistry, or related sciences, and medically-related areas. Includes a laboratory with a research and medical emphasis.
Pre: BIOL 220, CHEM 104 or CHEM 106 or CHEM 111 or CHEM 201 Fall, Spring, Summer

BIOL 380 (3) Blood Banking/Urinalysis
Basic understanding of the principles of immunohematology applied to the area of blood blanking including major blood group systems, principles for antigen/antibody detection and identification, donor blood collection, transfusion evaluation, theory of renal function in health and disease, specimen collection, handling, and processing, and components of routine urinalysis.
Spring

BIOL 402 (4) Stream Ecology
The structure and function of stream ecosystems are presented with emphasis on adaptations of organisms to stream life and connections between stream organisms, the aquatic environment, and the surrounding watershed. Includes lab, field work, and team projects.
Pre: BIOL 105, BIOL 106, BIOL 215 or consent Summer

BIOL 403 (3) Conservation Biology
Applications of principles from ecology, genetics, behavior, demography, economics, philosophy, and other fields to the conservation and sustainable use of natural populations of plants and animals. Lectures and discussions address topics such as habitat fragmentation, parks and reserves, genetic diversity, population viability, and extinction.
Pre: BIOL 215 or consent Spring

BIOL 404 (4) Wetlands
To provide students the values and functions of wetlands and to use wetlands as an example of the relationship of ecology to management, and the impact that classification systems have politically. Lab (fieldwork) included.
Pre: BIOL 105, BIOL 106, BIOL 215, or consent Summer

BIOL 405 (3) Fisheries Biology
An introduction to fish biology and fisheries management, diversity, form and function in the aquatic environment, functional physiology, evolution and speciation, identification and use of keys, ecology, and management topics.
Pre: BIOL 105, BIOL 106, BIOL 215, or consent of instructor ALT-Fall

BIOL 408 (4) Vertebrate Ecology
A field course in the ecology of birds, mammals, amphibians, reptiles, and fishes. Students are trained in sampling techniques such as mark-and-recapture, population size estimation and monitoring, and species identification of live and preserved specimens. Lectures encompass evolution and adoption, origins, energetics, mating systems, morphology, geographical distributions, and population-level phenomena. Lecture and Laboratory.
Pre: BIOL 105, BIOL 106, BIOL 215 or consent Fall

BIOL 409 (4) Advanced Field Ecology
A field course focused on the function and dynamics of various North American ecosystems. Emphases will be on natural history, critical thought, and experimental design. Students will be trained in a variety of soil, plant, and animal sampling techniques. Depending on enrollment, there may be additional costs (e.g., camping fees) for the course.
Pre: BIOL 105, BIOL 106, BIOL 215 or consent Summer (On-Demand)

BIOL 410 (3) Global Change Biology
This class examines the effects of natural and human-induced changes in climate on terrestrial and marine ecosystems. The course focuses on the science behind global change issues that have biological, social, and economic implications.
Pre: BIOL 105, BIOL 106, BIOL 215 or consent Fall

BIOL 412 (4) Soil Ecology
Soil ecology will focus on the genesis and classification of soils, the physical properties of soil as they relate to habitat formation, niches, interactions that exist among soil organisms, human impact on soil systems relative to population pressures and management practices. Lab included.
Pre: BIOL 105, BIOL 106, BIOL 215, or consent Spring

BIOL 417 (3) Biology of Aging and Chronic Diseases
Emphasis is placed on the biomedical aspects of aging and chronic disease. The course is designed for students majoring in biology, gerontology programs, or other health related programs.
Pre: BIOL 100 or BIOL 105 Fall, Spring

BIOL 419 (2-3) Special Topics in Instrumentation
Instruction in specialized biological instrumentation.
Pre: BIOL 105 and BIOL 106 Fall

BIOL 420 (3) Diagnostic Parasitology
Clinically important parasites. Protozoans, Flukes, Tapeworms, Roundworms, Ticks, Mites and Insects. Designed for Medical Technology, Pre-Med, Pre-Vet and Biology majors. Identification, clinical disease, epidemiology and ecology are covered. Lab included.
Pre: BIOL 100 or BIOL 105, BIOL 106 recommended Spring

BIOL 421 (3) Entomology
Morphological, physiological, medical, and economic significance of insects.
Pre: BIOL 105 and BIOL 106 or consent ALT-Fall

BIOL 424 (3) Developmental Biology
Understanding the process of cell differentiation and development. These principles are then applied to the descriptive study of human embryology including the basis of congenital malformations.
Pre: BIOL 100 or BIOL 105 Fall

BIOL 425 (1) Development Biology Lab
Instruction in specialized biological instrumentation.
Pre: BIOL 111 Coreq: BIOL 424

BIOL 430 (4) Hematology/Introduction to Immunology
Collection, examination, evaluation, morphology, function and diseases of blood cells. Hemostasis/coagulation of blood. Immunology theory is presented. Lab included.
Spring

BIOL 431 (3) Comparative Animal Physiology
A comparison of adaptation mechanisms, from cell to organ-system, used by animals in response to “changes in” environmental conditions such as oxygen, carbon dioxide, food availability, temperature, water, solutes, pressure and buoyancy.
Pre: BIOL 105, BIOL 106 or consent Fall
BIOL 432 (4) Lake Ecology
This course is an introduction to the physical, chemical, and biological characteristics and interactions of inland freshwater lakes. Labs will emphasize field work, including data collection from five local lakes, analysis, and discussion. ALT-Fall

BIOL 433 (3) Cardiovascular Physiology
This course is a functional study of the heart and circulatory system. Fall

BIOL 435 (4) Histology
Study of types, arrangements and special adaptations of human tissues. Lab included. Pre: BIOL 220 Spring

BIOL 436 (4) Animal Behavior
An exploration of behavioral strategy, communication, learning, and social systems of animals, with emphases placed on the causes, evolution, ecological implications, and function of behavior at the individual and population level. Lab included. Pre: BIOL 105, BIOL 106, BIOL 215 Spring

BIOL 438 (3) General Endocrinology
This course provides the basis for understanding hormones and the mechanisms of their actions in both the normal and pathological states. Sample topics to be included are diabetes, osteoporosis, hormones of reproduction and current social and medical issues related to the course. Pre: BIOL 100 or BIOL 105 Spring

BIOL 441 (4) Plant Physiology
Plant functions such as water relations, mineral nutrition, translocation, metabolism, photosynthesis, photorespiration, fat and protein metabolisms, respiration, growth and development, phytomembranes, reproduction and environmental physiology. Lab included. Pre: BIOL 105, BIOL 106, BIOL 217, one semester organic chemistry recommended. Spring

BIOL 442 (4) Flora of Minnesota
Field identification of plants with emphasis on local flora. History systematic, techniques, plant biogeography, methods of plant collection, preservation, preparation of herbarium specimens are covered. Lab and field trips included. Pre: BIOL 105, BIOL 106, BIOL 215 or consent. BIOL 217 strongly recommended. Spring

BIOL 443 (4) Plant Ecology
Expands upon general principles of ecology to focus on the factors that regulate the distribution and abundance of plants, analysis of plant populations, and dynamics of plant communities. Lecture and lab (fieldwork) included. Pre: BIOL 105, BIOL 106, BIOL 215 or consent. BIOL 217 strongly recommended. Fall

BIOL 451 (4) Plant Biotechnology
Lecture/laboratory course that presents an integrated view of plant biology, crop science, and current issues in biotechnology. Course focuses on issues of global concern such as sustainable food production, biofuels, genetically modified crops, molecular pharming, and tissue culture. Pre: BIOL 105, BIOL 106 Fall

BIOL 452 (3) Biological Instrumentation
The principle and operation of instruments and their application to biological research. Types of instrumentation examined include spectroscopic, chromatographic, electroanalytic, radiographic, and imaging. Laboratory Information Management systems (LIMS) will also be examined. Emphasis is placed on GLP, GMP, and ISO 9000 practices. Pre: BIOL 105, BIOL 106, or consent

BIOL 453 (4) Biological Engineering Analysis I
The application of engineering principles and skills as applied to fermentation and to biological product recovery. Pre: BIOL 270 and one semester each of calculus, physics, and organic chemistry, taken concurrently with BIOL 456. Fall

BIOL 454 (4) Biological Engineering Analysis II
Continuation of Biological Engineering Analysis I. The application of engineering principles and skills as applied to fermentation and to biological product recovery. Pre: BIOL 453, taken concurrently with BIOL 457 Spring

BIOL 456 (3) Biotechnology Project/Laboratory I
Practical laboratory experience in biotechnology through the selection and development of a research project. Students are expected to spend an average of 12 hours per week on the project. Pre: Concurrent enrollment in BIOL 453 Fall

BIOL 457 (3) Biotechnology Project/Laboratory II
Continuation of Biotechnology Project/Laboratory I. Practical laboratory experience in biotechnology through the selection and development of a research project. Students are expected to spend an average of 12 hours per week on the project. Pre: BIOL 456, taken concurrently with BIOL 454 Spring

BIOL 460 (3) Introduction to Toxicology
A lecture course covering basic principles of toxicity evaluation in living organisms, mechanisms of responses to chemicals or physical agents within an overview of practical medical, environmental and science policy implications. Presentation of comparisons of specific organ and tissue reactions to toxins in a variety of species follow these introductory concepts. Pre: BIOL 105, BIOL 106, and 1 year of General Chemistry ALT-Fall

BIOL 461 (4) Environmental Toxicology
A lecture/laboratory course that focuses on anthropogenic and natural toxicants, mathematical modeling of the dispersion of chemical and physical agents in the environment, effects on species and ecosystems with a special section on aquatic risk assessment. The laboratory includes techniques in environmental toxicity and a genuine research project. Pre: BIOL 460 ALT-Spring

BIOL 462 (1) Toxicology Seminar
A seminar course that involves critical evaluation of published studies in toxicology, student presentations of a selected published manuscript and requires students to write a paper on one aspect of the course’s topic area that semester. Topic areas vary each time the course is offered. Pre: BIOL 105, BIOL 106, and General Chemistry ALT-Fall

BIOL 464 (3) Methods of Applied Toxicology
A lecture/laboratory course focusing on the steps necessary to start a research project from project definition through methods testing and evaluation, and a final report that includes a project flow chart. Third year students will have senior and/or graduate mentors. Pre: BIOL 105, BIOL 106, and General Chemistry ALT-Fall

BIOL 465 (3) Applied Toxicology Project
A lecture/laboratory course where students perform all aspects of their own designed research topic in toxicology while critically evaluating the progress of other projects as well. Students will be expected to keep timelines or develop modified timelines as necessary. The inverted triangle approach of project design will be examined and then included in all designs. Pre: BIOL 464 ALT-S

BIOL 466 (3) Principles of Pharmacology
A lecture course that examines mechanisms of drug action, physiological responses and adverse reactions from sensitivities or allergies through overdose. Pre: BIOL 105, BIOL 106, and 1 year of General Chemistry ALT-Spring
BIOL 467 (3) Industrial Hygiene
A lecture course that examines Minnesota State Mankato, as your own work place to develop reports on a selected group of chemical and physical hazards of the workplace. Evaluation methods and solutions to existing problems are developed with concise reporting skills.
Pre: BIOL 105, BIOL 106, and 1 year of General Chemistry
ALT-Fall

BIOL 472 (4) Microbial Ecology and Bioremediation
Role of microorganisms in soil, air, water, sewage processes as well as methods of measurement and detection. Special emphasis on the role of microorganisms in bioremediation. Lab included.
Pre: BIOL 105, BIOL 106, and BIOL 270
ALT-Spring

BIOL 474 (4) Immunology
Fundamental principles of humoral and cell mediated immunity and the application of these principles. Current experimental work in the different areas of immunology will be discussed. Lab included.
Pre: BIOL 105, BIOL 106, and BIOL 270
Fall

BIOL 475 (4) Medical Microbiology
This course will cover bacterial, fungal, and viral human pathogens: what diseases they cause, how they cause disease, and how humans defend against and prevent those diseases. In the laboratory the student will isolate and identify pathogenic microorganisms using microbiological, biochemical, and immunological techniques.
Pre: BIOL 270

BIOL 476 (5) Microbial Physiology and Genetics
This course presents the physiology and genetics of microorganisms emphasizing those aspects unique to bacteria and archea. Topics include: energy production; biosynthesis of small molecules and DNA, RNA, and proteins; the formation of cell walls and membranes; microbial differentiation and behavior; and the genetic and biochemical regulation of these processes. Lab included.
Pre: BIOL 105, BIOL 106, BIOL 270
Spring

BIOL 477 (4) Food Microbiology and Sanitation
The role microbes play in production and spoilage of food products, as prepared for mass market. Topics include: foodborn pathogens, epidemiology and control, essential principles in sanitation including Hazard Analysis/Critical Control Point and ISO 9000 requirements. Lab included.
Pre: BIOL 105, BIOL 106 and BIOL 270

BIOL 479 (4) Molecular Biology
This course will cover both eukaryotic and prokaryotic molecular biology including: DNA and RNA structure, transcription, regulation of gene expression, RNA processing, protein synthesis, DNA replication, mutagenesis and repair, recombination, and insertion elements. A number of important techniques used in recombinant DNA technology will be discussed and practiced.
Pre: BIOL 105, BIOL 106, BIOL 211
Spring

BIOL 480 (3) Biological Laboratory Experiences for Elementary Teachers
Provides experience with a wide variety of biological laboratory exercises to prepare prospective elementary teachers. Emphasis is on building knowledge, skills, and confidence. The course will cover major biological concepts and environmental education through classroom-ready examples selected to illustrate each concept.
Fall, Spring

BIOL 481 (1) Lab Supervision and Maintenance
Experience in maintaining and supervising laboratories. For individuals desiring additional experience with students in laboratory situations.
Fall, Spring

BIOL 483 (1) MAX Scholar Seminar
This class provides MAX scholars with an opportunity to explore a set of topics related to achieving success in academic, professional and personal realms. Speakers will include faculty, graduate students, visiting researchers and industry members as well as student participants. Students will be required to participate in mentoring of lower division MAX scholarship recipients and provide written and oral presentations of various topics during the semester.
Pre: Recipient of a MAX scholarship or instructor consent.
Fall, Spring

BIOL 485 (4) Biology Teaching Methods and Materials
A basic science methods course designed to prepare prospective junior and senior high life science teachers. Course will cover science teaching methods and support materials as they apply to life science teaching situations.
Pre: 16 credits BIOL.
Fall

BIOL 486 (3) Field-Based Teaching Methods and Materials
A lecture/laboratory course that provides opportunity for prospective junior and senior high life science teachers to observe, practice, and refine their teaching skills. Students will work in a school setting and experience actual classroom.
Pre: BIOL 485
ALT-Spring

BIOL 490 (1-4) Workshop
A variable topic course designed for a selected topic in Biology. Workshops provide an intensive learning experience on a new topic in the Biological Sciences and/or hands-on experiences in a current area not covered by other course offerings. The course involves background reading, demonstrations, and laboratory or field experiences.
Fall, Spring

BIOL 491 (1-4) In-Service
Fall, Spring

BIOL 492 (1-3) Honors Research
Fall, Spring

BIOL 493 (1-12) Cytotechnology Clinical Internship I
The clinical internship and training includes lectures, demonstrations, laboratory sessions, and clinical practicum in the area of cytotechnology. Instructor permission required.
Fall, Spring

BIOL 494 (1-12) Cytotechnology Clinical Internship II
Continuation of Cytotechnology Clinical Internship I. The clinical internship and training includes lectures, demonstrations, laboratory sessions, and clinical practicum in the area of cytotechnology. Instructor Permission required.
Fall, Spring

BIOL 495 (1-12) Cytotechnology Clinical Internship III
Continuation of Cytotechnology Clinical Internship II. The clinical internship and training includes lectures, demonstrations, laboratory sessions, and clinical practicum in the area of cytotechnology. Instructor Permission required.
Fall, Spring

BIOL 496 (1-12) Cytotechnology Clinical Internship IV
Continuation of Cytotechnology Clinical Internship III. The clinical internship and training includes lectures, demonstrations, laboratory sessions, and clinical practicum in the area of cytotechnology. Instructor Permission required.
Fall, Spring

BIOL 497 (1-12) Internship I
Experience in applied biology according to a prearranged training program for a minimum of five 40-hour weeks.
Pre: Consent
Fall, Spring

BIOL 498 (1-12) Internship II
Experience in applied biology according to a prearranged training program for a minimum of five 40 hour weeks. Only four credits can be applied to the major.
Pre: Consent
Fall, Spring

BIOL 499 (1-4) Individual Study
Biotechnology
College of Science, Engineering & Technology
Department of Biological Sciences
242 Trafton Science Center S • 507-389-5731
Website: www.cset.mnsu.edu/biology/

Director: Gregg Marg, Ph.D.

Biotechnology is the application of recent developments in technology to manipulate the genetic and biochemical characteristics of an organism so that the organism or its metabolites can be economically produced for our benefit. In practice it requires the selection and genetic improvement of an organism for a specific purpose. Organisms may be used to synthesize a desirable product or degrade unwanted materials. The industrialization of this technology is dependent on the development of methods for scaling up processes developed in the laboratory.

Students interested in biotechnology could find careers in a wide variety of industrial applications. Examples of industries that use biotechnology are antibiotic and pharmaceutical; food; energy; agricultural pesticides; herbicides; fertilizers; growth chemicals and breeding programs; industrial chemicals, biocatalysts and diagnostics.

The biotechnologist works with research scientists on the development of processes in the laboratory and with engineers to transfer and scale up laboratory processes for large scale production required by industry. Because of the interdisciplinary nature of biotechnology, biotechnologists must have a strong background in the analytical and quantitative areas of science. In addition, the biotechnologist must be familiar with the theory and practice of genetic engineering and biochemical processes.

POLICIES/INFORMATION

Admission to Major is granted by the department. Admission requirements are 32 earned semester credit hours including BIOL 105 and BIOL 106, with a grade of a “C” or better in both BIOL 105 and BIOL 106; and a minimum cumulative GPA of 2.0.

BIOTECHNOLOGY BS
Degree completion = 120 credits

Required General Education
CHEM 201 General Chemistry I (5)
MATH 121 Calculus I (4)
PHYS 211 Principles of Physics I (4)

Prerequisites to the Major
BIOL 105 General Biology I (4)
BIOL 106 General Biology II (4)
BIOL 211 Genetics (4)

BIOL 270 Microbiology (4)
BIOL 320 Cell Biology (4)
BIOL 452 Biological Instrumentation (3)
BIOL 453 Biological Engineering Analysis I (4)
BIOL 454 Biological Engineering Analysis II (4)
BIOL 474 Immunology (4)
BIOL 476 Microbial Physiology and Genetics (5)
BIOL 479 Molecular Biology (4)
CHEM 202 General Chemistry II (5)
CHEM 320 Organic Chemistry I (5)
CHEM 360 Principles of Biochemistry (4)
PHYS 212 Principles of Physics II (4)

Major Restricted Electives
For those students planning on graduate or professional school, CHEM 305 Analytical Chemistry and MATH 122 Calculus II are strongly recommended. BIOL 451 Plant Biotechnology is strongly recommended for a student who plans to work in the agricultural biotechnology.

Additional Math/Statistics (choose 3-4 credits)
HLTH 475 Biostatistics (3)
MATH 122 Calculus II (4)
STAT 154 Elementary Statistics (3)

Capstone Experience (choose 6 credits from the following)
Choose in consultation with your advisor.
BIOL 456 Biotechnology Project/Laboratory I (3)
BIOL 457 Biotechnology Project/Laboratory II (3)
BIOL 497 Internship I (1-12)
BIOL 498 Internship II (1-12)
BIOL 499 Individual Study (1-4)

Required Minor: None.

POLICIES/INFORMATION

P/N Grading Policy. All courses must be taken for letter grades. Any exception to this policy must be approved by the chairperson of the department.

Refer to the College regarding required advising for students on academic probation.

GPA Policy. A minimum GPA of 2.0 must be maintained in biological sciences. Several biology scholarships are available for entering first year students and currently enrolled Minnesota State Mankato students who meet the requirements.

The Department of Biological Sciences offers a well-balanced summer school program. For details concerning the courses being offered consult the summer catalog.

Students who are business minors, non-business majors or those who are not seeking a four year degree may take up to 24 credits in the College of Business. However, prerequisites are enforced.

GPA Policy. Students must earn a minimum grade point average of 2.0 (“C”) on the total courses taken in the College of Business.

Residency. Transfer students pursuing a minor in the College of Business must complete at least 50% (one-half) of their minor coursework at Minnesota State Mankato.

Assessment Policy. The College of Business believes that the ongoing assessment of its programs makes a vital contribution to the quality of those programs and to student learning. Student participation is an important and expected part of the assessment process.

Business Administration
College of Business
150 Morris Hall • 507-389-2966

Coordinator: Myles Smayling
BUSINESS ADMINISTRATION MINOR

Required for Minor

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ACCT 200</td>
<td>Financial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 210</td>
<td>Managerial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>BLAW 200</td>
<td>Legal, Political and Regulatory Environment of Business</td>
<td>3</td>
</tr>
</tbody>
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ECON 201 Principles of Macroeconomics (3)
ECON 202 Principles of Microeconomics (3)
ECON 207 Business Statistics (4)
FINA 362 Business Finance (3)
MGMT 200 Introduction to MIS (3)
MGMT 330 Principles of Management (3)
MKRT 310 Principles of Marketing (3)

BUSINESS LAW MINOR

Required for Minor

<table>
<thead>
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<td>Legal, Political and Regulatory Environment of Business</td>
<td>3</td>
</tr>
<tr>
<td>BLAW 450</td>
<td>Contracts, Sales and Professional Responsibility</td>
<td>3</td>
</tr>
<tr>
<td>BLAW 452</td>
<td>Employment and Labor Law</td>
<td>3</td>
</tr>
<tr>
<td>IT 101</td>
<td>Introduction to Information Systems</td>
<td>3</td>
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Required Electives (6 credits) (choose two of the following)

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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>BLAW 371</td>
<td>Computer and Technology Law</td>
</tr>
<tr>
<td>BLAW 453</td>
<td>International Legal Environment of Business</td>
</tr>
</tbody>
</table>

BUSINESS EDUCATION

Business Education

College of Education
313 Armstrong Hall • 507-389-5210

Carrie Chapman, Ph.D.

Students should contact the Office of the Dean of this College for additional information.

Business Law

College of Business
Department of Accounting and Business Law
150 Morris Hall • 507-389-2965

Chair: W.C. Brown

P. Herickhoff, G. Holmes, V. Luoma, K. Wallerich

POLICIES/INFORMATION


Students who are business minors, non-business majors or those who are not seeking a four year degree may take up to 24 credits in the College of Business.

GPA Policy. Students must earn a minimum grade point average of 2.0 (“C”) on the total courses taken in the College of Business to meet graduation requirements.

Residency. Transfer students pursuing a minor in the College of Business must complete at least 50% (one-half) of their minor coursework at Minnesota State Mankato.

Assessment Policy. The College of Business believes that the ongoing assessment of its programs makes a vital contribution to the quality of those programs and to student learning. Student participation is an important and expected part of the assessment process.

BUSINESS EDUCATION BS

The Business Education BS Teaching degree is a cooperative degree program. The majority of the business education courses are taught at Winona State University. The required general business core courses are taught at Minnesota State Mankato.

The Professional Education courses required for Business Education degree and licensure are listed under the Educational Studies: K-12 & Secondary Programs department in the College of Education.

BUSINESS LAW

BLAW 455 Legal Aspects of Banking and Finance (3)
BLAW 474 Environmental Regulation and Land Use (3)
BLAW 476 Construction and Design Law (3)
BLAW 477 Negotiation and Conflict Resolution (3)
BLAW 483 Special Topics (3)

COURSE DESCRIPTIONS

BUS 100 (3) Introduction to Business and Business Careers
This course prepares students for success by exposing them to the requirements, expectation, resources and opportunities of the College of Business. Students will have business experiences and will develop professional skills. Variable

BUS 295 (2) Professional Preparation for Business Careers
This course is required for admission to the College of Business for all business majors. The purpose of the course is to provide students with an overview of the College of Business majors, allow students to create an academic plan for graduation, and develop professional skills needed for future job placement. Topics include cover letter and resume writing, interviewing skills, the process of networking, the internship program, etiquette skills, and requirements for graduation. Fall, Spring

BUS 397 (3) IBE Practicum
BUS 397 is an applied course that entails developing, launching, managing, and closing a business with the cohort of students enrolled in the class. Students write and present a business plan as they seek financing for their start-up company. The business start-up experience creates a real-world context in which students can practice the concepts introduced in MGMT 330, MRKT 310, and FINA 362. BUS 397 is part of the United Prairie Bank Integrated Business Experience, and students must enroll concurrently in BUS 397 and sections of FINA 362, MGMT 330, and MRKT 310 that are designated for IBE students. Pre: Must be admitted to the College of Business Coreq: FINA 362, MGMT 330, MRKT 310 Fall, Spring

BUS 397 (3) IBE Practicum
BUS 397 is an applied course that entails developing, launching, managing, and closing a business with the cohort of students enrolled in the class. Students write and present a business plan as they seek financing for their start-up company. The business start-up experience creates a real-world context in which students can practice the concepts introduced in MGMT 330, MRKT 310, and FINA 362. BUS 397 is part of the United Prairie Bank Integrated Business Experience, and students must enroll concurrently in BUS 397 and sections of FINA 362, MGMT 330, and MRKT 310 that are designated for IBE students. Pre: Must be admitted to the College of Business Coreq: FINA 362, MGMT 330, MRKT 310 Fall, Spring

BUS 131 (3) Consumer Law & Ethics
A survey of the law and ethics governing marriage, family, car ownership and insurance; civil rights (fair credit, fair housing, and equal employment opportunity); planning for illness and death; court procedures and alternative dispute resolution methods; jury service; the landlord-tenant relationship; and the rights of victims and people accused of crimes. Fall, Spring
Chemistry

Chemistry
College of Science, Engineering and Technology
Department of Chemistry & Geology
241 Ford Hall  •  607-389-1963

Chair: Mary Hadley
Brian Groh, Michael J. Lusch, Rebecca Moen, Marie K. Pomije, Jeffrey R. Pribyl, Danae Quirk Dorr, James Rife, Theresa Salerno, Lyudmyla Stackpool, Daniel Swart, John D. Thoemike, Trent Vorlcek

Accreditation. American Chemical Society (ACS).

The department is recognized by the American Chemical Society (ACS) and offers a BS major that is approved by that organization. Anyone considering a chemistry major or chemistry minor should choose a departmental faculty member as an advisor and consult that advisor often throughout the course of study.

POLICIES/INFORMATION

Admission to Major. Admission to a program is necessary before enrolling in 300- and 400-level courses. Admission is granted by the department. To be eligible for admission to the chemistry program, a student must have declared Chemistry or Chemistry Teaching as a first major, completed 32 credits including CHEM 201 and CHEM 202 and achieved a minimum GPA of 2.0. Students should also have an assigned chemistry advisor with whom they have discussed the program. Applications for admission to the chemistry program are available in the College Student Advising Center, 125 Trafton Science Center.

GPA Policy. Students obtaining a major or minor in chemistry must maintain an overall GPA of 2.2 in all courses required for their selected program with no more than 4 credits of “D” (1.0) work in chemistry courses.

P/N Grading Policy. Courses leading to a major or minor in chemistry or biochemistry may not be taken on a P/N basis except where P/N grading is mandatory.
For students who choose to obtain a BS in Chemistry or a BA in Chemistry, CHEM 495 must be taken at Minnesota State Mankato. This course will not be substituted. This policy does not apply to students who choose to obtain a BS in Chemistry Teaching.

The first year of coursework for all chemistry majors should include two semesters of chemistry (CHEM 201, CHEM 202) and two semesters of mathematics (selection of courses depends on mathematics background). During the second year, the recommended courses include organic chemistry, advanced mathematics, physics and analytical chemistry. For BS chemistry majors, it is important that the calculus and physics sequences be completed by the end of the second year since they are prerequisites for physical chemistry. Physical chemistry and instrumental analysis should be taken during the third year. The advanced courses in chemistry and biochemistry can be taken in the junior and senior years. Participation in senior seminar is required of all majors. The coursework in mathematics and physics that is required for a major may be credited toward a major or minor in these areas. For this reason it is often desirable and convenient to choose a joint major or minor with physics or mathematics.

Transfer students who are considering the Chemistry BS should note that before taking physical chemistry in the third (junior) year, students must successfully complete with a grade of “C” (2.0) or higher an analytical chemistry course in addition to appropriate mathematics and physics courses either here at Minnesota State Mankato or transferable to Minnesota State Mankato. Completion of an Associate’s degree may not meet the physical chemistry prerequisites and may add up to one year to the program of study.

### CHEMISTRY BA

#### Required General Education
- **Math** 121 Calculus I (4)
- **Physics** (choose 4 credits - choose 1 from the following)
- **PHYS** 211 Principles of Physics I (4)
- **PHYS** 221 General Physics I (4)

#### Major Common Core
- **CHEM** 201 General Chemistry I (5)
- **CHEM** 202 General Chemistry II (5)
- **CHEM** 305 Analytical Chemistry (4)
- **CHEM** 322 Organic Chemistry I (4)
- **CHEM** 324 Organic Chemistry II (5)
- **CHEM** 325 Organic Chemistry II Laboratory (1)
- **CHEM** 340 Quantitative Skills for Chemistry and Biochemistry I (1)
- **CHEM** 341 Quantitative Skills for Chemistry and Biochemistry II (1)
- **CHEM** 381W Introduction to Research (2)
- **CHEM** 440 Physical Chemistry I (3)
- **CHEM** 441 Physical Chemistry II (3)
- **CHEM** 450 Physical Chemistry Laboratory I (1)
- **CHEM** 451 Physical Chemistry Laboratory II (1)
- **CHEM** 495 Senior Seminar (1)
- **MATH** 122 Calculus II (4)

#### Major Restricted Electives
- **Chemistry** (choose 4 credits)
- **PHYS** 212 Principles of Physics II (4)
- **PHYS** 223 General Physics III (3)
- **PHYS** 233 General Physics III Laboratory (1)

#### Biochemistry Foundation (choose from the 3-4 credits) (choose 1 course)
- **CHEM** 360 Principles of Biochemistry (4)
- **CHEM** 460 Biochemistry I (3)

#### Major Unrestricted Electives
- **Choose 12 credits and at least 3 different courses from the 300-400 level CHEM courses other than CHEM 323, CHEM 479 and CHEM 482. No CHEM courses can be double-counted in the degree.**

#### Required Minor: None.

### CHEMISTRY BS

#### Required General Education
- **Math** 121 Calculus I (4)
- **Physics** (choose 4 credits from one of the following)
- **PHYS** 211 Principles of Physics I (4)
- **PHYS** 221 General Physics I (4)

#### Major Common Core
- **CHEM** 201 General Chemistry I (5)
- **CHEM** 202 General Chemistry II (5)
- **CHEM** 305 Analytical Chemistry (4)
- **CHEM** 322 Organic Chemistry I (4)
- **CHEM** 324 Organic Chemistry II (5)
- **CHEM** 325 Organic Chemistry II Laboratory (1)
- **CHEM** 340 Quantitative Skills for Chemistry and Biochemistry I (1)
- **CHEM** 341 Quantitative Skills for Chemistry and Biochemistry II (1)
- **CHEM** 381W Introduction to Research (2)
- **PHYS** 440 Physical Chemistry I (3)
- **CHEM** 441 Physical Chemistry II (3)
- **CHEM** 450 Physical Chemistry Laboratory I (1)
- **CHEM** 451 Physical Chemistry Laboratory II (1)
- **CHEM** 495 Senior Seminar (1)
- **MATH** 122 Calculus II (4)

#### Major Unrestricted Electives
- **Choose a minimum of 6 credits and at least 2 different courses from the 300-400 level CHEM courses other than CHEM 323, CHEM 479, and CHEM 482. No CHEM courses can be double-counted in the degree.**

#### Minor Core
- **CHEM** 201 General Chemistry I (5)
- **CHEM** 202 General Chemistry II (5)
- **CHEM** 305 Analytical Chemistry (4)
- **CHEM** 322 Organic Chemistry I (4)
- **CHEM** 324 Organic Chemistry II (3)

#### Minor Electives
- **Choose a minimum of 4 credits from the 300-400 level CHEM courses except CHEM 323, CHEM 479, CHEM 482, or CHEM 495. Core courses cannot count as electives. A minimum of 4 credits of chemistry courses must be taken at Minnesota State University Mankato for the minor.**

### CHEMISTRY MINOR

#### Minor Core
- **CHEM** 201 General Chemistry I (5)
- **CHEM** 202 General Chemistry II (5)
- **CHEM** 305 Analytical Chemistry (4)
- **CHEM** 322 Organic Chemistry I (4)
- **CHEM** 324 Organic Chemistry II (3)

#### Minor Electives
- **Choose a minimum of 4 credits from the 300-400 level CHEM courses except CHEM 323, CHEM 479, CHEM 482, or CHEM 495. Core courses cannot count as electives. A minimum of 4 credits of chemistry courses must be taken at Minnesota State University Mankato for the minor.**

### CHEMISTRY TEACHING BS

Requirements for the Chemistry Teaching BS can be found in the SCIENCE TEACHING section of the catalog. For information, consult the chemistry education advisor, Jeffrey Pribyl.
CHEM 100 (4) Chemistry in Society
This lecture and laboratory course investigates the world of chemistry, the nature of matter and our interactions with chemicals on a daily basis. This course is intended for non-science majors and is not a preparation for CHEM 111 or CHEM 201. Credit will not be given to students who have previously taken a chemistry course at or above CHEM 111 and received a passing grade.
Fall, Spring
GE-3

CHEM 104 (3) Introduction to Chemistry
This course is an introduction to general chemistry. It is a non-laboratory class designed to prepare students for CHEM 201 or to be utilized as a general education course. This course will address more mathematical relationships than CHEM 106. Credit will not be given to students who have previously taken a chemistry course at or above CHEM 111 and received a passing grade.
GE-3

CHEM 106 (3) Chemistry of Life Process Part I (General)
This course covers fundamental concepts required to understand the general chemistry in living organisms. This is a non-laboratory class. This chemistry course will not prepare students for any Chemistry course at or above the 200 level. Pre: MATH 098. Students seeking enrolling in CHEM 106 must demonstrate readiness to succeed in the course through one of the following means: 1. ACT mathematics sub-score of 19 or higher, or 2. ACCUPLACER Elementary Algebra Test score of 75.5 or higher AND ACCUPLACER College-Level Math Test score of 49.50 or higher.
GE-3

CHEM 111 (5) Chemistry of Life Process Part II (Organic & Biochemistry)
This course is an introduction to organic chemistry and biological chemistry. The laboratory will reinforce lecture. Pre: CHEM 106 or high school chemistry
Fall, Spring
GE-2, GE-3

CHEM 131 (3) Forensic Science
This chemistry course explores the scientific methods used in criminal investigations. Course topics will include discussions of different kinds of evidence, how to select and analyze samples, and especially how to interpret results of scientific tests. Specific topics will include the analysis of DNA, drugs, accelerants and explosives, and other organic and inorganic compounds. Case studies will be used as examples throughout the course. There will also be discussions concerning the ethics analysis, and uses of forensic data.
Variable
GE-3, GE-9

CHEM 134 (3) Mind Altering Substances
This course will explore the scientific, pharmacological, neurochemical and cultural aspects of psychoactive substances. The material is presented intuitively, with no mathematics. Course topics will include discussions of the major classes of pharmaceutical and psychoactive substances, basic neurochemistry, the role of psychoactive substances in medicine, the ritual use of psychoactive substances by traditional cultures, the FDA approval process, the significance and implications of drug testing, the controversy of drug-induced behavioral modification, national and global perspectives of substance abuse and the ethics of legalization.
Variable
GE-3

CHEM 135 (3) Science of Sport
An online course introducing the science related to sports issues including nutrition, movement, equipment selection, and healthy exercising/training.
Variable
GE-3

CHEM 191 (3) Chemistry Applications
From an engineering perspective, concepts of general chemistry will be investigated. Topics include atomic structure, stoichiometry, gas laws, periodic trends chemical bonds, thermodynamics, kinetics and organic chemistry. Pre: high school chemistry or “C” (2.0) or higher in CHEM 104, placement into MATH 115 or MATH 121
Fall
GE-2, GE-3

CHEM 200 (1) GC1 Laboratory Component
General chemistry lab for students who have completed CHEM 191 and need to fulfill the laboratory pre-requisite for CHEM 202 due to a change in academic major. This course requires special permission. Pre: CHEM 191
Variable

CHEM 201 (5) General Chemistry I
Introduction to the basic principles of chemistry including atomic and molecular structure, bonding, chemical reactions, stoichiometry, thermodynamics and states of matter. Laboratory will reinforce lecture concepts. Pre: “C” (2.0) or higher in MATH 112 or the equivalent; high school chemistry or “C” (2.0) or higher in CHEM 104.
Fall, Spring
GE-2, GE-3

CHEM 202 (5) General Chemistry II
Continuation of the basic principles of chemistry including properties of solutions, kinetics, acids and bases, equilibria, buffers, precipitation reactions, electron transfer reactions, electrochemistry, entropy and free energy. Laboratory will reinforce lecture concepts. Pre: “C” (2.0) or higher in CHEM 201
Fall, Spring

CHEM 299 (1-6) Individual Study

CHEM 305 (4) Analytical Chemistry
Introduction to the principles of chemical analysis, with emphasis on classical methods of analysis. Lectures will stress the theory of chemical measurements and sample handling. Laboratory exercises will provide students with opportunities to explore calibration methods, method development, and established procedures for volumetric and gravimetric analyses. Basic atomic spectroscopy is also presented. Pre: “C” (2.0) or higher in CHEM 202
Fall, Spring

CHEM 316 (3) Descriptive Inorganic Main Group Chemistry
This course is designed to survey descriptive main group chemistry and augment General Chemistry’s introduction to solid state and nuclear chemistry. Pre: CHEM 202
Alt-Fall

CHEM 317 (3) Transition Metal Chemistry
This course is designed to address transition metal chemistry, introduce bonding theory, nomenclature, reactivity and mechanisms for transition metal compounds. It will also address and use examples from bioinorganic chemistry and catalysis. Pre: CHEM 202
Alt-Fall

CHEM 322 (4) Organic Chemistry I
Introduction to organic nomenclature, structure, bonding, chemical reactivity, organic acid-base reactions, mechanisms and stereochemistry. IR, MS, and NMR spectroscopy will be introduced. The chemistry of alkanes, alkyl halides, alkenes, aldehydes, and alcohols will be covered. Laboratory illustrates synthetic techniques and the preparation and reactions of functional groups discussed during lecture. Pre: CHEM 202, “C” (2.0) or higher in CHEM 202.
Fall

CHEM 323 (1) Supplemental Organic Functional Group Chemistry
This course is a supplement to CHEM 322 and includes a brief coverage of functional groups and their chemistry not previously covered that are important in biochemistry. This course is intended only for students taking or who have taken only one semester of organic chemistry who plan to take CHEM 360 or CHEM 460. Pre: CHEM 322
Coreq: CHEM 322
Fall
CHEM 324 (3) Organic Chemistry II
This course is a continuation of CHEM 322 and includes organic nomenclature, structure, bonding, chemical reactivity, organic acid-base reactions, and reaction mechanisms; the chemistry of ethers, aromatic and heterocyclic compounds, polyenes, ketones, aldehydes, amines, carboxylic acids and their derivatives, and alpha carboxyl compounds and synthetic transformations are covered. Pre: CHEM 322, “C” (2.0) or higher.
Spring

CHEM 325 (1) Organic Chemistry II Lab
Laboratory will highlight common techniques including recrystallization, melting point determination, simple and fractional distillation, extraction, gas and thin layer chromatography, and chemical and spectroscopic qualitative analysis. Single and multi-step syntheses illustrating aromatic and carbonyl chemistry will be performed. Pre: CHEM 324 Coreq: CHEM 324 Spring

CHEM 340 (1) Quantitative Skills for Chemistry and Biochemistry I
Students will use chemical and biochemical experimental case studies to learn how to analyze, interpret, and critically evaluate experimental data. Software tools will be used to perform linear least squares and other fitting procedures. Intended to be taken prior to, or concurrent with CHEM 341. Pre: CHEM 202, MATH 121 (“C” (2.0) or higher in CHEM 202, MATH 121) Spring

CHEM 341 (1) Quantitative Skills for Chemistry and Biochemistry II
Application of differential and integral calculus to chemical and biochemical problem-solving. Use of software tools to implement numerical methods for integration and approximation. Intended to be taken following completion of, or concurrent with CHEM 340. Pre: CHEM 202, MATH 121, PHYS 211 or PHYS 221 (“C” (2.0) or higher in CHEM 202, MATH 121, PHYS 211 or PHYS 221) previously or concurrently. Spring

CHEM 360 (4) Principles of Biochemistry
Analysis of the structure and metabolism of biologically important compounds. This intermediate-level course is designed for students in the medical technology, food science, chemistry education, chemistry and pre-professional health majors. The laboratory teaches basic biochemical techniques. Pre: Either CHEM 322 and CHEM 324 or CHEM 322 and CHEM 323, “C” (2.0) or higher in all prerequisites Spring

CHEM 381W (2) Introduction to Research
Introduction to the use of chemical literature (in print and electronic media), current departmental faculty research interests, safe and ethical conduct of laboratory research, and proper recording of research results in laboratory notebooks. Students perform a literature search and write a proposal for an undergraduate research project. Pre: CHEM 322, “C” (2.0) or higher Fall WI

CHEM 407 (3) Environmental Chemistry
The sources of various elements and chemical reactions between them in the atmosphere and hydrosphere are treated. Current research topics relevant to the field of environmental chemistry will also be addressed. Laboratory exercises will emphasize proper sampling technique and various analytical methods for quantifying environmentally important components. Pre: “C” (2.0) or higher in CHEM 305 Variable

CHEM 419 (2) Physical Inorganic Chemistry Foundations
This course is designed to emphasize the theoretical foundations of physical inorganic chemistry. Course topics include: bonding theory, quantum mechanics and periodic trends, symmetry and group theory. Pre: CHEM 322, MATH 121 Alt-Spring

CHEM 423 (4) Spectroscopic Determination of Structure
Spectroscopic techniques including nuclear magnetic resonance, infrared, and mass spectrometry for determining structural features of molecules will be covered. Spectroscopic methods emphasize interpretation of spectra, and also provide hands-on operation of the corresponding electronic instruments. The laboratory uses these techniques for the determination of the structures of a series of unknown compounds. Pre: CHEM 324, CHEM 325, “C” (2.0) or higher in all prerequisites Spring

CHEM 424 (3) Advanced Organic Chemistry
Advanced synthetic organic reactions and their mechanisms. Laboratory will include examples of some of this chemistry, and techniques for reaction monitoring and product purification. Pre: CHEM 324, “C” (2.0) or higher Spring-EVEN

CHEM 434 (2) Industrial Chemistry
The synthesis and properties of organic macromolecules, especially industrially important polymers, and the chemistry of other industrially important chemical reactions and processes. Pre: CHEM 324, “C” (2.0) or higher Spring-ODD

CHEM 440 (3) Physical Chemistry I
Detailed treatment of thermodynamics and chemical kinetics. Topics include equations of state, laws of thermodynamics, statistical thermodynamics, phase and reaction equilibria, thermodynamics of solutions and electrochemistry, transport properties, and reaction kinetics. Pre: CHEM 305, CHEM 340, CHEM 341, MATH 121 and PHYS 211 or PHYS 221, “C” (2.0) or higher in all prerequisites Fall

CHEM 441 (3) Physical Chemistry II
Detailed treatment of quantum mechanics, spectroscopy, and statistical mechanics. Topics include the foundations of quantum mechanics, application of quantum mechanics to atomic and molecular structure, foundations of spectroscopic techniques and statistical mechanics. Pre: Must have a “C” (2.0) or higher in CHEM 440, MATH 122, PHYS 223 Spring

CHEM 450 (1) Physical Chemistry Laboratory I
Laboratory to accompany CHEM 440. An advanced treatment of measurement theory and data analysis precedes a series of thermodynamic and kinetic experiments designed to complement topics treated in lecture to help students’ independence and sophistication in planning, performing, and reporting experimental work. Pre: CHEM 440 previously or concurrently Fall

CHEM 451 (1) Physical Chemistry Laboratory II
Laboratory to accompany CHEM 441. Experiments and computational projects in quantum mechanics, spectroscopy, and statistical mechanics. The experiments and projects will continue to work toward the goal of increasing the students’ independence and sophistication. Pre: “C” (2.0) or higher in CHEM 440 Pre or Coreq: CHEM 441 Spring

CHEM 460 (3) Biochemistry I
Detailed analysis of the structures, properties, and functions of proteins, carbohydrates, and lipids; introduction to carbohydrate metabolism; theory for the purification and analysis of proteins. Concurrent enrollment in CHEM 465 is recommended. Pre: BIOL 106, CHEM 324, BIOL 106 or permission “C” (2.0) or higher in all prerequisites Fall
CHEM 461 (3) Biochemistry II
Detailed analysis of the reactions involved in intermediary metabolism, translation, transcription, and replication.
Pre: CHEM 460
Spring

CHEM 465 (1) Biochemical Techniques I
A lecture/laboratory course, which presents methodology and instrumentation used to purify and analyze biomolecules. Techniques include chromatography, radioisotope techniques, polyacrylamide gel electrophoresis, spectrophotometry, and PCR analysis.
Pre: CHEM 340 CHEM 460, “C” (2.0) or higher in CHEM 340 or instructor’s consent, CHEM 460 previously or concurrently. CHEM 305 is highly recommended.
Fall

CHEM 466W (2) Biochemical Techniques II
Students work in teams to solve biochemical research problems by analyzing data from experiments which they design.
Pre: CHEM 460 and CHEM 465
Spring
WI

CHEM 474 (2) Chromatography
Theory and applications of thin layer, paper, liquid and supercritical fluid chromatography and capillary electrophoresis.
Pre: CHEM 322. “C” (2.0) or higher
Fall-EVEN

CHEM 475 (4) Instrumental Analysis
Theory and practice of modern instrumental methods including basic electronics. Special emphasis placed on sampling methods, analog and digital electronics, electrochemistry, spectrophotometric and chromatographic methods, surface and thin-film analysis and computer acquisition and data processing techniques.
Pre: “C” (2.0) or higher in CHEM 305; PHYS 212 or PHYS 222 is recommended
Spring

CHEM 479 (4) Teaching Physical Science
Methods and materials for teaching physical sciences in middle school through high school. Clinical experiences are required for the course.
Pre: Consent
Spring

CHEM 482 (1-3) Problems in Teaching Science

CHEM 490 (1-6) Workshop

CHEM 491 (1-3) Problems in Teaching Science

CHEM 494 (1) Biochemistry Capstone Experience
This course is designed for the BS Biochemistry major or the BA Biochemistry major who chooses to do research. Requirements include submission of an undergraduate research grant, and after completion of the research, presentation of the results in poster format at a research conference such as the URC and as an oral presentation to peers. This capstone experience will also include the submission of a formal research paper. Students are required to attend capstone experience seminars for at least two semesters. Students should enroll for this course in their final semester.
Pre: CHEM 466, by permission only

CHEM 495 (1) Senior Seminar

CHEM 496 (1-6) Senior Thesis

CHEM 497 (1-16) Internship

CHEM 498 (1-6) Undergraduate Research

CHEM 499 (1-6) Individual Study

CHEMISTRY CONTINUED

CHEM 461 (3) Biochemistry II
Detailed analysis of the reactions involved in intermediary metabolism, translation, transcription, and replication.
Pre: CHEM 460
Spring

CHEM 465 (1) Biochemical Techniques I
A lecture/laboratory course, which presents methodology and instrumentation used to purify and analyze biomolecules. Techniques include chromatography, radioisotope techniques, polyacrylamide gel electrophoresis, spectrophotometry, and PCR analysis.
Pre: CHEM 340 CHEM 460, “C” (2.0) or higher in CHEM 340 or instructor’s consent, CHEM 460 previously or concurrently. CHEM 305 is highly recommended.
Fall

CHEM 466W (2) Biochemical Techniques II
Students work in teams to solve biochemical research problems by analyzing data from experiments which they design.
Pre: CHEM 460 and CHEM 465
Spring
WI

CHEM 474 (2) Chromatography
Theory and applications of thin layer, paper, liquid and supercritical fluid chromatography and capillary electrophoresis.
Pre: CHEM 322. “C” (2.0) or higher
Fall-EVEN

CHEM 475 (4) Instrumental Analysis
Theory and practice of modern instrumental methods including basic electronics. Special emphasis placed on sampling methods, analog and digital electronics, electrochemistry, spectrophotometric and chromatographic methods, surface and thin-film analysis and computer acquisition and data processing techniques.
Pre: “C” (2.0) or higher in CHEM 305; PHYS 212 or PHYS 222 is recommended
Spring

CHEM 479 (4) Teaching Physical Science
Methods and materials for teaching physical sciences in middle school through high school. Clinical experiences are required for the course.
Pre: Consent
Spring

CHEM 482 (1-3) Problems in Teaching Science

CHEM 490 (1-6) Workshop

CHEM 491 (1-3) Problems in Teaching Science

CHEM 494 (1) Biochemistry Capstone Experience
This course is designed for the BS Biochemistry major or the BA Biochemistry major who chooses to do research. Requirements include submission of an undergraduate research grant, and after completion of the research, presentation of the results in poster format at a research conference such as the URC and as an oral presentation to peers. This capstone experience will also include the submission of a formal research paper. Students are required to attend capstone experience seminars for at least two semesters. Students should enroll for this course in their final semester.
Pre: CHEM 466, by permission only

CHEM 495 (1) Senior Seminar

CHEM 496 (1-6) Senior Thesis

CHEM 497 (1-16) Internship

CHEM 498 (1-6) Undergraduate Research

CHEM 499 (1-6) Individual Study

CHINESE

Chinese (Mandarin)
College of Arts & Humanities
Department of World Languages & Cultures
227 Armstrong Hall • 507-389-2116
Website: www.mnsu.edu/languages
Chair: Gregory Taylor

Although Minnesota State Mankato does not offer a degree in Chinese, students may register for Chinese courses by contacting the Department of World Languages & Cultures.

Please go to World Languages and Cultures to see course descriptions.
WLC 106 Elementary Mandarin I (5)
WLC 107 Elementary Mandarin II (5)

CIVIL ENGINEERING

Civil Engineering
College of Science, Engineering and Technology
Department of Mechanical and Civil Engineering
205 Trafton Science Center East • 507-389-6383
Fax 507-389-5002
Website: ce.mnsu.edu

Chair: Patrick Tebbe, Ph.D., P.E.
Aaron S. Budge, Ph.D., P.E.; Shaobiao Cai, Ph.D.; Stephen J. Druschel, Ph.D., P.E.; Charles W. Johnson, Ph.D., P.E.; Sungwon Kim, Ph.D.; Saeed Moaveni, Ph.D., P.E.; Vojin Nikolic, Ph.D., P.E.; Deborah K. Nykanen, Ph.D., P.E.; Jin Park, Ph.D.; Farhad Reza, Ph.D., P.E.; Patrick A. Tebbe, Ph.D., P.E.; W. James Wilde, Ph.D., P.E.
Adjunct Faculty: Dan Flatgard; David Hanson

Accreditation. The Civil Engineering program is accredited by the Engineering Accreditation Commission of ABET, www. ABET.org

Civil Engineering, as defined by the American Society of Civil Engineers, is a profession in which a knowledge of the mathematical and physical sciences gained by study, experience, and practice is applied with judgment to develop ways to utilize, economically, the materials and forces of nature for the progressive well-being of humanity in creating, improving and protecting the environment, in providing facilities for community living, industry and transportation, and in providing structures for the use of humanity.

Civil engineers design and supervise the construction of roads, buildings, airports, tunnels, dams, bridges, water supply, water and wastewater treatment, and many other systems. Major specialties within civil engineering include: structural, geotechnical, water resources, transportation, environmental, and construction engineering.
The Mission of the Civil Engineering Program at Minnesota State University, Mankato is to provide a broad-based education that will enable graduates to enter practice in the civil engineering profession, serving the needs of the State of Minnesota and the Nation.

Within 3-6 years of graduation, graduates of the civil engineering program at Minnesota State University, Mankato are expected to contribute to the profession and to society as a whole by achieving a combination of the following milestones.

1. Based on their strong technical foundation in civil engineering, they have advanced professionally to increased levels of responsibility have successfully transitioned into business or management, or have successfully completed an advanced degree.
2. They have become a registered professional engineer.
3. They have demonstrated an ability to communicate technical information through technical reports and/or proposals, development of plans and specifications, presentations to the public, published papers and articles, and/or conference presentations.
4. They have participated in continuing education or pursued additional industry certification.
5. They have participated in, or served as an officer of, a local, regional, or national professional engineering society, standards committee, or state/local board.

Program objectives are monitored by the constituencies (civil engineering profession through the program’s Industrial Advisory Board and employers, alumni, and students of the program).

Other important features of a civil engineering education at Minnesota State Mankato include:

- Senior students work closely with engineers from design firms and government agencies, and with faculty and students from other engineering courses in the senior design project.
- Students take the Fundamentals of Engineering exam in their senior year – the first step towards professional registration.
- The faculty maintains ties to industry, thereby keeping current with new technologies, design methodologies, and the world of civil engineering practice – a valuable resource for students.

Preparation. Recommended high school preparation is one year each of precalculus, physics and chemistry. Computer skills such as word processing, spreadsheets, and presentations are also recommended. Without this background it may take longer than four years to earn the degree.

POLICIES/INFORMATION

Program Admission. Admission to the Civil Engineering Program is granted by the department, and is necessary before enrolling in 300- and 400-level courses. Near the end of the sophomore year, students submit an application for admission to the civil engineering program. Applications to the program may be obtained from the Department of Mechanical and Civil Engineering or downloaded from the department homepage.

Before being admitted to upper-division civil engineering courses, a student must complete a minimum of 48 credits, for grade, including the following core courses, applicable to the degree: calculus-based physics, 8 credits; calculus and differential equations, 16 credits; introduction to engineering, 2 credits; computer graphics, 2 credits; introduction to problem solving and civil engineering design, 2 credits; engineering mechanics (statics, dynamics, and mechanics of materials), 9 credits; chemistry with lab, 5 credits; and English composition, 4 credits.

To be admitted to the civil engineering program, a student must earn a grade of “C” (2.00) or better and a cumulative GPA of 2.50 in the courses listed above. All core course grades (including those for repeated courses) will be considered in the computation of the GPA for admission to the program. Provisional admission to the program for one semester may be granted in limited cases.

All admitted students are required to take a department-administered diagnostic test early in their junior year.

Transfer Students. The department makes a special effort to accommodate transfer students. Transfer students are encouraged to contact the department as soon as possible to facilitate a smooth transition. Generally, no transfer credits are allowed for upper division civil engineering courses. Transfer students must complete a minimum of 12 credits at Minnesota State Mankato prior to being considered for full admission to the program.

Satisfactory Progress. Once admitted to the civil engineering program, a student must demonstrate satisfactory progress by maintaining a cumulative GPA of at least 2.30 in all upper-division engineering courses (including repeated courses).

P/N Grading Policy. P/N credit is not allowed for any course used to meet civil engineering degree requirements.

Probation Policy. An admitted student who does not maintain satisfactory progress as defined above will be placed on program probationary status for a maximum of one semester. During the probationary period, the student must complete at least 8 credits, approved by the department, of upper division engineering courses for grade from the prescribed Civil Engineering curriculum. Students may not receive a degree without first conforming to the satisfactory progress criteria. A student who fails to meet satisfactory progress for a second semester (consecutive or non-consecutive) will not be allowed to continue in the program.

Appeals. A student may appeal any departmental decision in writing. The department will consider such appeals individually.

CIVIL ENGINEERING BSCE
Degree completion = 128 credits

Required General Education

Required Special General Education (23 credits)
The Bachelor of Science in Civil Engineering degree does not adhere to the standard general education program required by other majors. Rather, it requires a special distribution of communication, humanities, and social science courses. Courses may be chosen to satisfy the university cultural diversity requirement concurrently.

The courses selected must provide both breadth and depth and should not be limited to a selection of unrelated introductory courses. Each student should discuss with his/her academic advisor on the selection of courses to meet this requirement early in their academic career. A current list of acceptable courses is posted in the department office and on the department website. Specifically, the minimum requirements consist of at least 6 credits in the humanities area, and at least 6 credits in the social sciences area in addition to the Required General Education courses.

To provide the measure of depth to the course of study, at least 3 credits at the 300-level or above must be included in either the humanities or the social sciences requirement. At least one upper division course must follow a course in the same subject area as a course at the 100 or 200 level.

ENG 101 Composition (4)
ENG 271W Technical Communication (4) (choose 3 credits)
ECON 201 Principles of Macroeconomics (3)
ECON 202 Principles of Microeconomics (3)

Prerequisites to the Major
CHEM 201 General Chemistry I (5)
MATH 121 Calculus I (4)
MATH 122 Calculus II (4)
MATH 223 Calculus III (4)
MATH 321 Ordinary Differential Equations (4)
PHYS 221 General Physics I (4)

CHOOSE 1 CLUSTER

Physics II
PHYS 222 General Physics II (3)
PHYS 232 General Physics II Laboratory (1)
Civil Engineering continued

**Physics III**
- PHYS 223 General Physics III (3)
- PHYS 233 General Physics III Laboratory (1)

**Major Common Core**
- CIVE 101 Introduction to Engineering - Civil (2)
- CIVE 145 CAD for Civil Engineering (2)
- CIVE 201 Introduction to Problem Solving and Civil Engineering Design (2)
- CIVE 235 Properties of Civil Engineering Materials (3)
- CIVE 271 Civil Engineering Measurements (2)
- CIVE 321 Fluid Mechanics (3)
- CIVE 340 Structural Analysis (3)
- CIVE 350 Hydraulics and Hydrology (4)
- CIVE 360 Geotechnical Engineering (4)
- CIVE 370W Transportation Engineering (4)
- CIVE 380 Environmental Engineering (3)
- CIVE 401 Civil Engineering Design I (2)
- CIVE 402 Civil Engineering Design II (3)
- CIVE 435 Civil Engineering Experimentation I (2)
- CIVE 436 Civil Engineering Experimentation II (2)

**Civil, Science and Technical Electives**
Choose a minimum of 18 credits in civil (minimum 9), science (4) and technical (minimum 5) electives. The science and technical electives are recommended to be taken after identifying an area of interest and in consultation with an academic advisor. Science and technical electives must be selected from the list below.

**Civil Engineering Electives** (choose 9-12 credits)
- CIVE 432 Properties of Concrete (3)
- CIVE 446 Reinforced Concrete Design (3)
- CIVE 447 Prestressed Concrete Design (3)
- CIVE 448 Steel Design (3)
- CIVE 450 Finite Element Method (3)
- CIVE 452 Open Channel Flow (3)
- CIVE 454 Hydraulic Structures (3)
- CIVE 458 Stormwater Management (3)
- CIVE 461 Fundamentals of Pavement Design (3)
- CIVE 465 Foundation Design (3)
- CIVE 467 Earth Structures (3)
- CIVE 470 Traffic Engineering (3)
- CIVE 471 Highway Planning and Design (3)
- CIVE 476 Planning and Design of Airports (3)
- CIVE 481 Water & Wastewater Treatment, Collection & Distribution (3)
- CIVE 482 Utility Pipeline Inspection, Repair and Rehabilitation (3)
- CIVE 484 Landfill Design and Hazardous Waste (3)

**Technical Electives** (choose 2-5 credits)
- BIOL 270 Microbiology (4)
- BLAW 450 Contracts, Sales, and Professional Responsibility (3)
- BLAW 453 International Legal Environment of Business (3)
- BLAW 474 Environmental Regulation and Land Use (3)
- CM 310 Estimating I (3)

**COURSE DESCRIPTIONS**

**CIVE 100 (1) Explorations in Engineering**
This course offers an introduction to the various disciplines of engineering and their relationship to the principles of physics and mathematics. Students are prepared for academic success and the transition into an engineering program.

Fall
GE-12

**CIVE 101 (2) Introduction to Engineering - Civil**
To prepare the students for a career in engineering with some emphasis in civil; introduce the engineering fundamentals and the skills necessary to have a successful learning experience; and to prepare students for engineering education and profession through interactions with upper-class engineering students and practicing engineers.
Pre: MATH 113 or MATH 115 or MATH 121

Fall

**CIVE 145 (2) CAD for Civil Engineering**
Basic computer applications for drafting and designing civil engineering projects. Structure and use of standard CAD software. Basic orthographic construction and projections, and development of different types of drawings - sections, plan and profile, and construction details.

Fall, Spring

**CIVE 201 (2) Introduction to Problem Solving and Civil Engineering Design**
Introduction to the design concepts of civil engineering projects including presentations, codes and standards, construction drawings, and public hearing; problem solving skills for civil engineering analysis and design including the use of appropriate computational tools and programming logic. Includes laboratory component.
Pre: CIVE 101
Coreq: CIVE 145, MATH 121

Fall, Spring

**CIVE 212 (3) Statics**
Results of force systems, equilibrium, analysis of forces acting on structural elements, friction, second moments, virtual work.
Pre: PHYS 221

Fall, Spring

**CIVE 214 (3) Dynamics**
Kinematics and kinetics of particles, systems of particles and rigid bodies, work energy, linear and angular impulse momentum, vibrations.
Pre: CIVE 212 or ME 212

Fall, Spring

**CIVE 223 (3) Mechanics of Materials**
Load, deformation, stress, strain, stress-strain relationship, buckling, energy concepts, stress analysis of structural elements.
Pre: CIVE 212 or ME 212

Fall, Spring
CIVE 235 (3) Properties of Civil Engineering Materials  
Coreq: ME 223  
Spring

CIVE 271 (2) Civil Engineering Measurements  
Basic civil engineering measurements as relates to construction layout, including distances, angles, bearings, elevations, mapping, and positioning. Includes laboratory component.  
Coreq: MATH 121  
Fall

CIVE 293 (1) MAX Scholar Seminar  
This class provides MAX scholars with an opportunity to explore a set of topics related to achieving success in academic, professional and personal realms. Speakers will include faculty, graduate students, visiting researchers and industry members as well as student participants. Students will be required to participate in mentoring of lower division MAX scholarship recipients and provide written and oral presentations of various topics during the semester. This course may be repeated and will not count towards graduation requirements.  
Pre: Recipient of a MAX scholarship or instructor consent.  
Fall, Spring

CIVE 321 (3) Fluid Mechanics  
Introduction to fluid properties, fluid statics, fluid flow, buoyancy, Bernoulli’s equation, the integral and differential approach to basic flow equations, similarity and dimensional analysis, viscous internal and external flows, and pumps.  
Pre: CIVE 214 or ME 214  
Coreq: ME 241 or ME299  
Fall

CIVE 340 (3) Structural Analysis  
Minimum design loads for buildings using ASCE 7 guidelines and load distribution. Analysis of determinate structural systems including the case of moving loads. Analysis of indeterminate structures using the flexibility and moment distribution methods. Use of software to enhance the analysis.  
Pre: CIVE 223 or ME 223  
Fall

CIVE 350 (4) Hydraulics and Hydrology  
Concept of hydraulics such as pipe flow and open channel flow. Hydrologic principles such as weather patterns; precipitation measurement and distribution, abstractions, and runoff; storm hydrograph and peak flow analysis. Design includes flood design, reservoir and channel routing. Includes significant design component.  
Pre: CIVE 321 or ME 321, ME 291  
Spring

CIVE 360 (4) Geotechnical Engineering  
Study of soil behaviors and their classifications; index properties. Applications of mechanics principles to soils as an engineering material, consolidation theory, compaction theory, effective stresses, shear strength; earth pressure and slope stability. Elements of foundation designs. Includes significant design component.  
Pre: CIVE 223 or ME 223  
Coreq: CIVE 321 or ME 321  
Spring

CIVE 370 (4) Transportation Engineering  
Introduction to Transportation systems; land use and transportation interaction, planning, and traffic operations; transportation decision making using economic analysis. Introduction to design, construction, maintenance, and operation of various transportation modes. Includes significant design component.  
Coreq: CIVE 271, ME 291  
Fall

CIVE 370W (4) Transportation Engineering  
Introduction to Transportation systems; land use and transportation interaction, planning, and traffic operations; transportation decision making using economic analysis. Introduction to design, construction, maintenance, and operation of various transportation modes. Includes significant design component.  
Coreq: CIVE 271, ME 291  
Fall

CIVE 380 (3) Environmental Engineering  
Introduction of the fundamental chemical, biological and physical principles of environmental engineering for water and wastewater treatment and distribution systems, solid waste management, air pollution control, and the analysis of air quality, surface water, and ground water. Includes significant design component.  
Pre: CHEM 201, MATH 321  
Coreq: CIVE 321 or ME 321  
Fall

CIVE 398 (0) CPT: Co-Operative Experience  
Curricular Practical Training: Co-Operative Experience is a zero-credit full-time practical training experience for one summer and on adjacent fall or spring term. Special rules apply to preserve full-time student status. Please contact an advisor in your program for complete information.  
Pre: CIVE 201. At least 60 credits earned; in good standing; instructor permission; co-op contract; other prerequisites may also apply.  
Fall, Spring, Summer

CIVE 401 (2) Civil Engineering Design I  
Practical civil engineering design project with real world constraints. This course focuses on the planning and formulation of a project, and the presentation of preliminary findings to the public. Includes significant design component.  
Pre: CIVE 340, CIVE 350, CIVE 360, CIVE 370  
Coreq: CIVE 380  
Fall

CIVE 402 (3) Civil Engineering Design II  
Practical civil engineering design project with real world constraints. Focuses on the engineering analysis, design, and economic analysis of the project. Includes significant design component.  
Pre: CIVE 401  
Spring

CIVE 432 (3) Properties of Concrete  
Selected studies in the properties and design of concrete mixtures, cement chemistry, concrete durability, specialty concrete, construction, admixtures, and quality control. Includes laboratory and significant design components.  
Pre: ME 223  
Variable

CIVE 435 (2) Civil Engineering Experimentation I  
Provides students with hands-on experience in the testing of civil engineering materials including concrete, metals and structural systems. Includes laboratory component.  
Pre: CIVE 340 & CIVE 370  
Fall

CIVE 436 (2) Civil Engineering Experimentation II  
Provides students with hands-on experience in the testing of civil engineering materials including soil and asphalt, fluid mechanics, hydraulics, and hydrology. Includes laboratory component.  
Pre: CIVE 350, CIVE 360  
Spring

CIVE 446 (3) Reinforced Concrete Design  
Design of reinforced concrete beams, columns, slabs, and structural foundations according to ACI 318 Building Code requirements. Includes significant design component.  
Pre: CIVE 340  
Alt-Spring

CIVE 447 (3) Prestressed Concrete Design  
Pre: CIVE 340  
Spring

CIVE 448 (3) Steel Design  
Behavior and properties of structural steel. Design of tension members, compression members, beams, and connections using the LRFD method. Use of the AISC Steel Construction Manual is required. Includes significant design component.  
Pre: CIVE 340  
Alt-Spring
CIVE 450 (3) Finite Element Method
Same as ME 450

CIVE 452 (3) Open Channel Flow
Analysis of open channel flow systems. Includes natural channels, designed channels, flow transitions, steady flow, unsteady flow, uniform flow, and non-uniform flow. Includes significant design component.
Pre: CIVE 350
Variable

CIVE 454 (3) Hydraulic Structures
Analysis and design of water regulating structures. Includes dams, spillways, gates, dikes, levees, stilling basins, water distribution systems, and various simpler structures. Environmental impacts of hydraulic structures are discussed throughout the course. Includes significant design component.
Pre: CIVE 350
Variable

CIVE 458 (3) Stormwater Management
Application of fluid mechanics and hydrology to the design of stormwater management facilities. Environmental impacts of stormwater management are discussed throughout the course. Includes significant design component.
Pre: CIVE 350
Variable

CIVE 461 (3) Fundamentals of Pavement Design
Performance and design of rigid, flexible, and composite pavement structures with emphasis on modern pavement design procedures. Principles of pavement maintenance, rehabilitation, and pavement management systems. Materials characterization, tests, quality control, and life cycle cost analysis. Includes significant design component.
Pre: CIVE 370, CIVE 223 or ME 223
Coreq: CIVE 360
Variable

CIVE 465 (3) Foundation Design
Classification of foundations; applications of fundamental soil mechanics to design and analysis of soil-structure systems; design and computer application of shallow and deep foundations, piles and caissons, retaining structures. Introduction to rock mechanics. Includes significant design component.
Pre: CIVE 360
Variable

CIVE 467 (3) Earth Structures
Design and construction of traditional embankments, including slope stability analysis; earth and rockfill dams, introduction to seepage analysis; excavations, earth retaining structures, and other geotechnical structures. Geotechnical software application in analysis and design. Includes significant design component.
Pre: CIVE 360
Variable

CIVE 470 (3) Traffic Engineering
Elements of traffic engineering including road use, vehicle and roadway systems; traffic flow theory; traffic studies and data collections; traffic control devices; principles of intersecting signalization; capacity and level of service; analysis of freeways, rural highways and intersections using computer software for traffic operations and management. Includes significant design component.
Pre: CIVE 370
Variable

CIVE 471 (3) Highway Planning and Design
Classification and design process of highways; development and use of design controls, criteria, and highway design elements; design of vertical and horizontal alignment, and establishment of sight distances; design of cross sections, intersections, and interchanges. Extensive use of CAD software. Includes significant design component.
Pre: CIVE 145 and CIVE 370
Variable

CIVE 476 (3) Planning and Design of Airports
Development and design of airport facilities and the integration of multiple disciplines including runway orientation and capacity, terminal facilities, forecasting, planning, noise, airspace utilization, parking, lighting, and construction. Includes significant design component.
Pre: CIVE 370
Variable

CIVE 481 (3) Water & Wastewater Treatment, Collection & Distribution
Overview of municipal water and wastewater treatment and distribution practices. Application of chemical, biological and physical principles to design and the operation of water and wastewater treatment and distribution systems. Includes significant design component.
Pre: CIVE 380
Variable

CIVE 482 (3) Utility Pipeline Inspection, Repair and Rehabilitation
Design and implementation of inspection plans, repairs and rehabilitation of sewer, storm drainage and drinking water supply pipelines. Consideration of performance, logistics and cost implications of all available methods. Includes significant design component.
Pre: CIVE 380
Variable

CIVE 483 (3) Stormwater Management
Application of fluid mechanics and hydrology to the design of stormwater management facilities. Environmental impacts of stormwater management are discussed throughout the course. Includes significant design component.
Pre: CIVE 350
Variable

CIVE 484 (3) Landfill and Hazardous Waste Engineering
Overview of municipal water and wastewater treatment and distribution practices. Application of chemical, biological and physical principles to design and the operation of water and wastewater treatment and distribution systems. Includes significant design component.
Pre: CIVE 380
Variable

CIVE 485 (3) Open Channel Flow
Analysis of open channel flow systems. Includes natural channels, designed channels, flow transitions, steady flow, unsteady flow, uniform flow, and non-uniform flow. Includes significant design component.
Pre: CIVE 350
Variable

CIVE 486 (3) Foundation Design
Classification of foundations; applications of fundamental soil mechanics to design and analysis of soil-structure systems; design and computer application of shallow and deep foundations, piles and caissons, retaining structures. Introduction to rock mechanics. Includes significant design component.
Pre: CIVE 360
Variable

CIVE 487 (3) Earth Structures
Design and construction of traditional embankments, including slope stability analysis; earth and rockfill dams, introduction to seepage analysis; excavations, earth retaining structures, and other geotechnical structures. Geotechnical software application in analysis and design. Includes significant design component.
Pre: CIVE 360
Variable

CIVE 488 (3) Traffic Engineering
Elements of traffic engineering including road use, vehicle and roadway systems; traffic flow theory; traffic studies and data collections; traffic control devices; principles of intersecting signalization; capacity and level of service; analysis of freeways, rural highways and intersections using computer software for traffic operations and management. Includes significant design component.
Pre: CIVE 370
Variable

CIVE 489 (3) Highway Planning and Design
Classification and design process of highways; development and use of design controls, criteria, and highway design elements; design of vertical and horizontal alignment, and establishment of sight distances; design of cross sections, intersections, and interchanges. Extensive use of CAD software. Includes significant design component.
Pre: CIVE 145 and CIVE 370
Variable

CIVE 491 (1-4) In-Service
May be repeated for credit on each different topic.
Variable

CIVE 493 (1) MAX Scholar Seminar
This class provides MAX scholars with an opportunity to explore a set of topics related to achieving success in academic, professional and personal realms. Speakers will include faculty, graduate students, visiting researchers and industry members as well as student participants. Students will be required to participate in mentoring of lower division MAX scholarship recipients and provide written and oral presentations of various topics during the semester. This course may be repeated and will not count towards graduation requirements.
Pre: Recipient of a MAX scholarship or instructor consent.
Fall, Spring

CIVE 494 (1) Global Experience in Engineering and Technology
This class provides students pursuing a minor in “Global Solutions in Engineering and Technology” with an opportunity to explore a set of topics related to achieving success in advance of and following an international experience (internship, study abroad, etc.). Speakers will include faculty, graduate students, visiting researchers and industry members as well as student participants. Returning students will be required to participate in mentoring of students preparing for their international experience and provide written and/or oral presentations of various topics during the semester. This course is required both before and after participation in the international experience (min. 2 cr.)
Variable

CIVE 497 (1-6) Internship
Variable

CIVE 499 (1-6) Individual Study
Cognitive Science
College of Arts and Humanities
Department of Philosophy
227 Armstrong Hall • 507-389-2012

Cognitive Science Program Director: Richard Liebendorfer.

Biology Concentration Advisor: Geoffrey Goellner
Computer Science Concentration Advisor: Rebecca Bates
Philosophy Concentration Advisor: Richard Liebendorfer
Psychology Concentration Advisor: Dawn Albertson

Cognitive Science Program Core Faculty: Dawn Albertson (Psychology) Rebecca Bates (Computer Science), Michael Bentley (Biology), Sun Yu (Philosophy), Richard Liebendorfer (Philosophy), Geoffrey Goellner (Biology), Daniel Toma (Biology), Karla Lassonde (Psychology), Moses Langley (Psychology), Guari-onex Salivia (Cognitive Science).

Cognitive Science is an interdisciplinary inquiry concerned with understanding the nature and development of such intelligent capacities as perception, language, reasoning, learning and problem-solving, whether these capacities are realized in biological or artificial systems. Such inquiry is by its very nature interdisciplinary, integrating methodological, theoretical and practical foci of Biology, Computer Science, Philosophy and Psychology into a single course of study.

POLICIES/INFORMATION

The cognitive science major is a broad major and does not require that a student complete a minor in addition to the major. The major requires approximately 71-79 credits (depending on area of concentration) including prerequisites. As prerequisites for the major students must take CHEM 201, MATH 115 OR MATH 121, PSYC 201, OR STAT 354. Some of prerequisite requirements also fulfill General Education goal areas. Some of the concentrations have additional prerequisites (see course descriptions for more information). The program requirements below should be read carefully.

Each Cognitive Science major will concentrate in one of the four participating disciplines: Biology, Computer Science, Philosophy and Psychology. The concentration typically requires 24 credits of work. In addition to the concentration each student will take core courses from each of the three participating disciplines. Each core will typically require 12 credits of course work, a total of 36 credits. A student need not do the core for her or his area of concentration since the core is already included in the concentration.

The structure of the major insures that students have a solid grounding in each of the four disciplines as well as a specific concentration in one area that draws on the interdisciplinary foundation. Graduates of the program will be prepared for a variety of post-baccalaureate options. Graduates of the program will be prepared for study in one of the many recently developed graduate Cognitive Science programs as well as graduate study in related programs such as cognition, brain, and behavior, cognitive neuroscience, biopsychology and human-computer interaction.

Those who choose to study the law, a path frequently chosen by philosophy majors, will be well suited for legal practice concerned with the variety of legal complexities associated with the development of new technology.

Admission to the major is granted by the Cognitive Science Program. Minimum admission requirements are:

- a minimum of 32 earned semester hours.
- a minimum cumulative GPA of 2.5

Contact the Cognitive Science Program Director or the Program Advisors in one of the four participating departments.

Grading Policy. All coursework applied towards the major must be taken for a letter grade except for courses offered only as P/N. A minimum grade of “C-” is required in all courses which are to be applied towards the major. In addition, a minimum grade of “C-” is required for all prerequisite courses where dictated by individual department policies. Grades of “D” are not accepted by the program for pre-requisites to the major, major common core and major restricted elective courses.

<table>
<thead>
<tr>
<th>Required General Education</th>
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<tbody>
<tr>
<td>CHEM 201 General Chemistry I (5)</td>
</tr>
<tr>
<td>MATH 121 Calculus I (4)</td>
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<table>
<thead>
<tr>
<th>Prerequisites to the Major (choose 3-4 credits)</th>
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</thead>
<tbody>
<tr>
<td>PSYC 201 Statistics for Psychology (4)</td>
</tr>
<tr>
<td>STAT 354 Concepts of Probability &amp; Statistics (3)</td>
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<thead>
<tr>
<th>Major Common Core</th>
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<tbody>
<tr>
<td>(choose one emphasis and three core elective clusters)</td>
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<thead>
<tr>
<th>Major Restricted Electives</th>
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<tbody>
<tr>
<td>(choose three of the core elective groups other than your major emphasis)</td>
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<table>
<thead>
<tr>
<th>Core Elective: Biology (choose 11 credits)</th>
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<tbody>
<tr>
<td>BIOL 220 Human Anatomy (4)</td>
</tr>
<tr>
<td>BIOL 324 Neurobiology (3)</td>
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<tr>
<td>BIOL 330 Principles of Human Physiology (4)</td>
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<thead>
<tr>
<th>Core Elective: Computer Science</th>
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<tbody>
<tr>
<td>CS 315 Introduction to Cryptographic Methods (4)</td>
</tr>
<tr>
<td>CS 330 Introduction to Neural Computation (4)</td>
</tr>
<tr>
<td>CS 430 Artificial Intelligence (3)</td>
</tr>
<tr>
<td>IT 482 Human Computer Interaction (4)</td>
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<table>
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<tr>
<th>Required (choose 12 credits)</th>
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<tbody>
<tr>
<td>CS 110 Computer Science I (4)</td>
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<tr>
<td>CS 111 Computer Science II (4)</td>
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<tr>
<td>CS 230 Introduction to Intelligent Systems (4)</td>
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<thead>
<tr>
<th>Core Elective: Philosophy</th>
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<tbody>
<tr>
<td>PHIL 101W Philosophical Problem: The Mind-Body Problem (3)</td>
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<table>
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<tr>
<th>Electives (choose 9 credits)</th>
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<tbody>
<tr>
<td>PHIL 410 Philosophy of Language (3)</td>
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<tr>
<td>PHIL 474 Philosophy of the Mind (3)</td>
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<tr>
<td>PHIL 475 Philosophical Issues in Cognitive Science (3)</td>
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<tr>
<td>PHIL 480 Philosophy of Science (3)</td>
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<tr>
<td>PHIL 481 Philosophy of Biology (3)</td>
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<tr>
<th>Core Elective: Psychology</th>
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<tbody>
<tr>
<td>PSYC 413 Sensation &amp; Perception (4)</td>
</tr>
<tr>
<td>PSYC 415 Human Memory (4)</td>
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<tr>
<td>PSYC 421 Behavior Neuroscience (4)</td>
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<table>
<thead>
<tr>
<th>Major Emphasis: Biology</th>
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<tbody>
<tr>
<td>BIOL 105 General Biology I (4)</td>
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<tr>
<td>BIOL 106 General Biology II (4)</td>
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<tr>
<td>BIOL 220 Human Anatomy (4)</td>
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<tr>
<th>Electives (choose 6-8 credits)</th>
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<tbody>
<tr>
<td>BIOL 211 Genetics (4)</td>
</tr>
<tr>
<td>BIOL 242 Developmental Biology (3)</td>
</tr>
<tr>
<td>BIOL 436 Animal Behavior (4)</td>
</tr>
<tr>
<td>BIOL 438 General Endocrinology (3)</td>
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</tbody>
</table>
Communication Disorders Program provides a curriculum for a major in communication disorders, pre-professional preparation in speech-language pathology or audiology, and supportive coursework for majors from other departments with interests in human communication or its disorders.

The beginning courses concern the normal aspects of speech, language and hearing—its nature and development, as well as introducing the student to the disorders of speech, language, and hearing. Advanced courses are devoted to specific disorders in terms of their nature and treatment. The undergraduate training culminates with supervised practicum experiences in which the student works with people who have communication disorders. The Communication Disorders program is accredited by the Council on Academic Accreditation of the American Speech-Language-Hearing Association.

The minor in Communication Disorders (16 credits) is designed to acquaint students with the nature of impaired human communication. One minor core course, one minor capstone course, and 12 credits of minor specialization are required. There is considerable flexibility in the “specialization” portion of the program. Therefore, students are required to meet with a Communication Disorders advisor to identify classes that are appropriate to their plan of study.

POLICIES/INFORMATION

Students completing course requirements under previous catalogs are advised to consult the department chairperson for appropriate course substitutions.

The minimum level of professional preparation in communication disorders requires the master’s degree. The department does not recommend bachelor degree graduates for professional employment in the field.

Admission to Major is granted by the department upon completion of the courses of CDIS 312, CDIS 322, CDIS 392, and CDIS 394, with a 3.0 grade point average. Students should seek admission to the program during their sophomore year or fall semester of their junior year and should work with an advisor in the department to plan a course of study. Permission to enroll in 400 level courses requires a 3.0 average in the following courses: CDIS 312, CDIS 322, CDIS 392, CDIS 394. In addition to the grade point requirement of 3.0, students may earn a final grade of “C” in no more than one course among the four. Any courses with a final grade of “C” or lower must be repeated and a grade of “B” or better must be earned to fulfill requirements for the Communication Disorders Major.

Students planning to major in an area of study in the College of Allied Health and Nursing have an advisor assigned to them. Questions and concerns pertaining to advising and the assignment of advisors can be answered by the student relations coordinator. Contact the Dean’s office for contact information.

GPA Policy. A minimum GPA of 3.0 is required to enroll in practicum (CDIS 495).

Refer to the College regarding required advising for students on academic probation.

P/N Grading Policy. All courses must be taken for letter grades by majors except those offered on a P/N only basis.
COMMUNICATION DISORDERS BA
Degree completion = 120 credits

General Education Courses
Students must take a total of 12 credits with at least one course in each of the following areas: Statistics, Biology, Physical Sciences (physics or chemistry), and Social/Behavioral Sciences.

Required for Major
CDIS 201 Observation of Human Communication (3)
CDIS 220 Basic Audiology (3)
CDIS 290 Introduction to Communication Disorders (3)
CDIS 312 Speech and Language Development (3)
CDIS 322 Speech and Hearing Science (3)
CDIS 392 Phonetics (3)
CDIS 394 Applied Anatomy and Physiology (3)
CDIS 402 Child Language Disorders (2)
CDIS 403 Child Language Disorders Lab (1)
CDIS 410 Neurological Bases of Speech (2)
CDIS 416 Voice and Resonance Disorders (3)
CDIS 421 Aural Rehabilitation (3)
CDIS 431 Orientation Lab (1)
CDIS 434 Orientation to Clinical Practicum (2)
CDIS 438 Speech Sound Disorders (3)
CDIS 444 Appraisal and Diagnosis (3)
CDIS 446 Grand Rounds - Presentation (2)
CDIS 495 Clinical Practicum: Speech/Language Disorders (2)

Required for Minor
CDIS 290 Introduction to Communication Disorders (3)

Minor Specialization Courses (Select 12 credits minimum)
CDIS 201 Observation of Human Communication (3)
CDIS 220 Basic Audiology (Note: prerequisite is CDIS 322) (3)
CDIS 312 Speech and Language Development (3)
CDIS 322 Speech and Hearing Science (3)
CDIS 392 Phonetics (3)
CDIS 394 Applied Anatomy and Physiology (3)
CDIS 402 Child Language Disorders (2)
CDIS 403 Child Language Disorders Lab (1)
CDIS 416 Voice and Resonance Disorders (3)
CDIS 417 Stuttering (3)
CDIS 421 Aural Rehabilitation (3)
CDIS 444 Appraisal and Diagnosis (3)

Other Graduation Requirement
Required for Bachelor of Arts (BA) degree ONLY: Language (8 credits)

Required Minor: None

COMMUNICATION DISORDERS BS
Degree completion = 120 credits

General Education Courses
Students must take a total of 12 credits with at least one course in each of the following areas: Statistics, Biology, Physical Sciences (physics or chemistry), and Social/Behavioral Sciences.

Required for Major
CDIS 201 Observation of Human Communication (3)
CDIS 220 Basic Audiology (3)
CDIS 290 Introduction to Communication Disorders (3)
CDIS 312 Speech and Language Development (3)
CDIS 322 Speech and Hearing Science (3)
CDIS 392 Phonetics (3)
CDIS 394 Applied Anatomy and Physiology (3)
CDIS 402 Child Language Disorders (2)
CDIS 403 Child Language Disorders Lab (1)
CDIS 410 Neurological Bases of Speech (2)
CDIS 416 Voice and Resonance Disorders (3)
CDIS 421 Aural Rehabilitation (3)
CDIS 431 Orientation Lab (1)
CDIS 434 Orientation to Clinical Practicum (2)
CDIS 438 Speech Sound Disorders (3)
CDIS 444 Appraisal and Diagnosis (3)
CDIS 446 Grand Rounds - Presentation (2)
CDIS 495 Clinical Practicum: Speech/Language Disorders (2)

Required for Minor
CDIS 290 Introduction to Communication Disorders (3)

Minor Specialization Courses (Select 12 credits minimum)
CDIS 201 Observation of Human Communication (3)
CDIS 220 Basic Audiology (Note: prerequisite is CDIS 322) (3)
CDIS 312 Speech and Language Development (3)
CDIS 322 Speech and Hearing Science (3)
CDIS 392 Phonetics (3)
CDIS 394 Applied Anatomy and Physiology (3)
CDIS 402 Child Language Disorders (2)
CDIS 403 Child Language Disorders Lab (1)
CDIS 416 Voice and Resonance Disorders (3)
CDIS 417 Stuttering (3)
CDIS 421 Aural Rehabilitation (3)
CDIS 444 Appraisal and Diagnosis (3)

Required for Minor Capstone Course
CDIS 445 Grand Rounds – Foundation (1)

COMMUNICATION DISORDERS MINOR
Students must complete both Minor Core and Minor Capstone courses and a minimum of 12 credits from Minor Specialization Courses.

Required for Minor
CDIS 290 Introduction to Communication Disorders (3)

Minor Specialization Courses (Select 12 credits minimum)
CDIS 201 Observation of Human Communication (3)
CDIS 220 Basic Audiology (Note: prerequisite is CDIS 322) (3)
CDIS 312 Speech and Language Development (3)
CDIS 322 Speech and Hearing Science (3)
CDIS 392 Phonetics (3)
CDIS 394 Applied Anatomy and Physiology (3)
CDIS 402 Child Language Disorders (2)
CDIS 403 Child Language Disorders Lab (1)
CDIS 416 Voice and Resonance Disorders (3)
CDIS 417 Stuttering (3)
CDIS 421 Aural Rehabilitation (3)
CDIS 444 Appraisal and Diagnosis (3)

Required for Minor Capstone Course
CDIS 445 Grand Rounds – Foundation (1)

Other Graduation Requirement
Required for Bachelor of Arts (BA) degree ONLY: Language (8 credits)

Required Minor: None

COMMUNICATION DISORDERS CONTINUED
CDIS 290 (3) Introduction to Communication Disorders
Classification and management of speech, language and hearing disorders and how their effects can marginalize a population.
Fall, Spring
GE-7
Diverse Cultures - Purple

CDIS 291 (1-3) Individual Study
Fall, Spring

CDIS 312 (3) Speech and Language Development
Acquisition and sequences of phonological, syntactical, morphological and semantic features of language across the lifespan. Theory and research.
Fall

CDIS 322 (3) Speech and Hearing Science
This course is designed to provide the students with a comprehensive knowledge base of the auditory and speech sciences as they relate to communication disorders. The major emphasis is on the characteristics of sound and sound transmission and the relationship to speech perception.
Fall

CDIS 392 (3) Phonetics
Using IPA to analyze and transcribe the sounds of English, emphasizing understanding the process involved to produce phonemes in normal, culturally different and disordered speech.
Fall

CDIS 394 (3) Applied Anatomy and Physiology
Anatomy and Physiology with specific focus on structure and function of speech, language, and hearing mechanisms. Specific systems include respiration, phonation, articulation, hearing, and neurology (peripheral and central).
Fall

CDIS 401 (3) Hearing Disorders
This course is designed to provide students with the knowledge base of various auditory and vestibular disorders. It will explore the effects of auditory dysfunction as it relates to communication, education and remediation.
Fall

CDIS 402 (2) Child Language Disorders
Types and characteristics of language disorders in children.
Fall

CDIS 403 (1) Child Language Disorders Lab
Lab associated with CDIS 402. Practice in applying course content to the language of children.
Fall

CDIS 404 (3) Dimensions of Deafness
This course is designed to provide students with a knowledge base of Deaf culture. The many facets of the deaf/hard of hearing person’s life will be explored. The debate over cochlear implantation is discussed in great detail.
Spring

CDIS 408 (3) Seminar in Central Auditory Processing Disorders
Students will learn the definition of central auditory processing disorders (CAPD), as well as the controversies surrounding the diagnosis of the disorder. The neuroanatomy and physiology related to auditory processing will also be covered in order to understand the diversity involved in the diagnostic and management methods of CAPD. Students will learn the appropriate test batteries, the diagnostic team involved, the inclusion of a multidisciplinary team approach and treatment/management options for CAPD. This course would be beneficial to education majors, CDIS majors, and Educational Psychology.
Spring

CDIS 410 (2) Neurological Bases of Speech
An overview of neuroanatomy and neuroscience and relationships between neuroscience and speech, language, and hearing.
Fall

CDIS 416 (3) Voice and Resonance Disorders
Description, etiology, assessment and management of voice and resonance disorders.
Fall

CDIS 417 (3) Stuttering
Description, etiology, assessment and management of fluency disorders.
Spring

CDIS 421 (3) Aural Rehabilitation
Habilitation audiology and the instruction of the hearing-impaired, including hearing aids, speech reading and auditory training.
Spring

CDIS 431 (1) Orientation Lab
Supervised observation of the diagnostic and remedial management of speech and language disorders.
Pre: Concurrent enrollment in CDIS 434
Spring

CDIS 434 (2) Orientation to Clinical Practicum
Procedures and operation of the clinical program in communication disorders.
Pre: Consent, concurrent enrollment in CDIS 431
Spring

CDIS 438 (3) Speech Sound Disorders
Description, etiology, assessment and management of speech sound problems.
Fall

CDIS 444 (3) Appraisal and Diagnosis
Tests, measures, procedures and processes for the evaluation and diagnosis of speech and language.
Spring

CDIS 445 (1) Grand Rounds-Foundation
Observation of clinical case studies.
Variable

CDIS 446 (2) Grand Rounds-Presentation
Presentation of clinical case studies.
Variable

CDIS 490 (1-4) Independent Study
Fall, Spring, Summer

CDIS 491 (1-6) In-service
Study of a specific disorder or aspects of communication disorders that are not provided in the current curriculum.

CDIS 495 (2) Clinical Practicum: Speech/Language Disorders
A practicum course designed to train the student to provide competent clinical services to persons with communication disorders. The student will develop skills to conduct diagnostic sessions, design and implement intervention plans and write clinical reports.
Pre: 3 of the following: CDIS 402, CDIS 416, CDIS 417, CDIS 438 (completion of or concurrent enrollment in CDIS 444). GPA of 2.8 in major courses.
Fall, Spring
Communication Studies
College of Arts & Humanities,
Department of Communication Studies
230 Armstrong Hall • 507-389-2213
Website: www.mnsu.edu/cmst

Chairs: David Engen
Christopher Brown, Daniel Cronn-Mills, Kristen Cvancara, James Dimock,
Deepa Oommen, Sachi Sekimoto, Kristen Treinen, Leah White

Communication Studies is the exploration of how people generate shared meaning through the use of verbal and nonverbal symbols. Communication Studies majors work to develop confidence and effectiveness in their public speaking, interpersonal, and small group communication skills. The focus is not on preparing students for a specific job, but rather helping students to develop interpersonal, organizational, intercultural, and public presentation skills which will enhance the quality of their lives across a variety of contexts (e.g., within the workplace, family, civic and social situations).

POLICIES/INFORMATION

Admission to Major is granted by the department. Minimum University admission requirements are:
- a minimum of 32 earned semester credit hours.
- a minimum cumulative GPA of 2.0.

Contact the department for application procedures. In addition to the general requirements, a cumulative GPA of 2.2 must be maintained in the courses of the major.

GPA Policy. Students must maintain a minimum of 2.2 GPA.

P/N Grading Policy. Total credits in the department must not exceed 25 percent P/N for a major or a minor.

Internships. Internships are P/N option only.

Academic Probation Advising. Refer to the information listed in the College of Arts and Humanities section of the catalog.

Communication Studies minors may apply no more than 4 credits of CMST 498 and 4 credits of CMST 499 to fulfillment of the minor. Additional credits may be applied for graduation requirements. Communication Studies majors may apply no more than 8 credits of CMST 498 and 4 credits of CMST 499 to fulfillment of the major. Additional credits may be applied for graduation requirements. CMST 100 does not count toward major or minor requirements.

Course Repeat Policy. Students with a major/minor in Communication Studies may repeat any course in the department in an effort to improve grades. A student may repeat a specific course only once. In exceptional circumstances, a student may appeal to the department chair for a second repeat of a course. The official grade for the course, listings on a student’s transcript, and other matters related to course repeats will adhere to appropriate university policies.

COMMUNICATION STUDIES BA
Degree completion = 120 credits

Required General Education
CMST 101W Interpersonal Communication (4)
CMST 203 Intercultural Communication (4)

Major Common Core
CMST 102 Public Speaking (3)
CMST 150 Introduction to Argument (4)
CMST 190 Introduction to Communication Studies (4)
CMST 485 Senior Seminar (4)

Major Restricted Electives
Argument & Ethics (choose 4 credits)
CMST 300 Ethics and Free Speech (4)
CMST 321 Argumentation and Debate (4)

Presentation & Performance (choose 8 credits)
CMST 310 Performance of Literature (4)
CMST 333 Advanced Public Communication (4)
CMST 409 Performance Studies (4)

Rhetoric (choose 8 credits)
CMST 415 Topics in Rhetoric and Culture (1-4)

Minor
A minor is required. Minor must be a language offered by the Department of Modern Languages (e.g., French, German, Spanish, Scandinavian Studies)

Required Minor: Yes. Language

COMMUNICATION STUDIES BS
Degree completion = 120 credits

Required General Education
CMST 101W Interpersonal Communication (4)
CMST 102 Public Speaking (3)
CMST 203 Intercultural Communication (4)

Major Common Core
CMST 150 Introduction to Argument (4)
CMST 190 Introduction to Communication Studies (4)
CMST 290 Communication Research (4)
CMST 485 Senior Seminar (4)

Major Restricted Electives
CMST 440 only with approval of department chair
CMST 440 only with approval of department chair
CMST 409 Performance Studies (4)
CMST 412 Organizational Communication (4)
CMST 415 Topics in Rhetoric and Culture (1-4)
CMST 440 Special Topics (1-4)

Major Unrestricted Electives
Select 16 credits from Communication Studies (choose 16 credits)
12 of the 16 credits must be upper-level (300-400) courses
CMST 103 through CMST 499 (CMST 100 does not count toward the major.)

Required Minor: Yes. Any.

COMMUNICATION ARTS AND LITERATURE - EDUCATION BS

Required General Education
CMST 102 Public Speaking (3)
CMST 310 Performance of Literature (4)
HLTTh 240 Drug Education (3)
KSP 220W Human Relations in a Multicultural Society (3)
MASS 110 Introduction to Mass Media (4)

Literature, Humanities, Film (choose 4 credits)
Choose one course in literature, humanities, or film from the following list.
ENG 110 Introduction to Literature (4)
ENG 112W Introduction to Poetry and Drama (4)
ENG 113W Introduction to Prose Literature (4)
ENG 118 Diverse Cultures in Literature and Film (4)
ENG 125 International Children’s Literature (4)
ENG 146 Introduction to Shakespeare (4)
ENG 211W Perspectives in Literature and Human Diversity (4)
ENG 212W Perspectives in World Literature (4)
ENG 213W Perspectives: Ethics and Civic Responsibility in Literature (4)
ENG 215 Topics in Literature (2-4)
ENG 242W Introduction To Creative Writing (4)

Any 100-200 Film course. Any 100-200 Humanities course.

Major Common Core
Only two credits of CMST 201 are required. Total Major Common Core credits: 38. Total Major Restricted Elective credits: 9. Total credits in program: 47.
COMMUNICATION STUDIES CONTINUED

CMST 101W  Interpersonal Communication (4)
CMST 201  Small Group Communication (2-4)
CMST 215  Effective Listening (2)
CMST 420  Methods: Teaching Communication Arts (2)
CMST 425  Methods: Directing and Coaching Forensics (2)
ENG 275W  Introduction to Literary Studies (4)
ENG 285  Practical Grammar (2)
ENG 327  American Literature to 1865 (4)
ENG 328  American Literature: 1865 to the Present (4)
ENG 361  Teaching Literature, Grades 5-12 (4)
ENG 362  Teaching English, Writing, Grades 5-12 (4)
ENG 381  Introduction to English Linguistics (4)

Major Restricted Electives

British Literature (choose 4 credits)
ENG 320  British Literature to 1785 (4)
ENG 321  British Literature: 1785-Present (4)

World Literature (choose 2 credits)
Only two credits of world literature are required.
ENG 433  Selected Studies in World Literature (4)
ENG 435  The World Novel (2-4)
ENG 461  World Literature for Children and Young Adults (2-4)

Young Adult Literature (choose 3 credits)
Only three credits of young adult literature are required.
ENG 463  Adolescent Literature (3)
ENG 464  Teaching Literature in the Middle School (3)

Other Graduation Requirements

See the Secondary 5-12 & K-12 Professional Education section of the bulletin for admission requirements for professional education and for a list of required professional education courses. Students will take two credits of general electives to meet the 120-credit degree requirement.

COMMUNICATION STUDIES MINOR

Required for Minor
CMST 101W  Interpersonal Communication (4)
CMST 102  Public Speaking (3)
CMST 150  Introduction to Argument (4)

Required Electives for Minor (8 credits)
4 of the 8 elective credits must be in upper-level classes. CMST 100 does not count toward the minor.
CMST 103 through CMST 499  Communication Studies

INTERDISCIPLINARY MINOR IN COMMUNICATIONS (27 credits)
This interdisciplinary minor is for students who wish to enhance their communication skills for use in business and other professional settings. Students completing this minor will develop an understanding of contexts and rhetorical strategies for oral and written communication among professionals. Students will also develop their own ability to communicate through written texts, oral communication, and electronic formats. These skills are highly desirable by employers in a wide range of business, government, and nonprofit organizations. Students may major in any of the programs affiliated with this minor, but the courses taken for the minor will not count toward the major. Students must earn a “C” or better in English courses in order to apply them to the minor.

Minor Core
CMST 212  Professional Communication & Interviewing (4)
CMST 412  Organizational Communication (4)
ENG 271W  Technical Communication (4)
ENG 474  Research and Writing Technical Reports (4)

Minor Electives
Choose 11 credits from the following programs. At least one course must be at the 3/400 level.
CMST 225  Communicating With/Through Technology (4)
CMST 305  Communication & Community (4)
CMST 333  Advanced Public Communication (4)
CMST 445  Conflict Management (4)
ECON 201  Principles of Macroeconomics (3)
ECON 202  Principles of Microeconomics (3)

CMST 301W  Advanced Writing (4)
CMST 454  Persuasive Writing on Public Issues (4)
CMST 455  Advanced Writing Workshop (4)
ENG 471  Visual Technical Communication (4)
ENG 473  Desktop Publishing (4)
ENG 474  Research and Writing Technical Reports (4)
ENG 475  Editing Technical Publications (4)
IT 100  Introduction to Computing and Applications (4)
RPLS 377  Public Relations (3)
RPLS 465  Event Management (3)
URBS 150  Sustainable Communities (3)
URBS 230  Community Leadership (3)
URBS 412  Public Information and Involvement (3)

COURSE DESCRIPTIONS

CMST 100 (3)  Fundamentals of Communication
A course designed to improve a students understanding in communication, including the areas of interpersonal, nonverbal, listening, small group and public speaking. GE-1B

CMST 101W (4)  Interpersonal Communication
A course blending theory and practice to help individuals build effective relationships through improved communication. WI, GE-2

CMST 102 (3)  Public Speaking
A course in communication principles to develop skills in the analysis and presentation of speeches. GE-1B

CMST 150 (4)  Introduction to Argument
An introduction to the field of argument, addressing structure, types and critical analysis. Students will learn to identify types of reasoning, argument fallacies and pseudo-reasoning. Students will apply concepts in the construction and refutation of argument positions. Fall, Spring

CMST 190 (4)  Introduction to Communication Studies
Course is designed to provide the student with an understanding of the history, scholarly writing, and academic journals in the communication discipline, thus preparing the student for more advanced courses in the Department of Communications Studies.

CMST 201 (2-4)  Small Group Communication
Development of communication skills for working with others in small group situations.

CMST 202 (4)  Nonverbal Communication
Investigation of the concepts and theories of nonverbal communication. Designed to assist students in increasing their awareness and understanding of their nonverbal communication and in analyzing and understanding the nonverbal communication of others.

CMST 203 (4)  Intercultural Communication
The course explores communication with people from other cultures, why misunderstandings occur and how to build clearer and more productive cross-cultural relationships. GE-7, GE-8

CMST 212 (4)  Professional Communication & Interviewing
Designed to help students improve oral communication skills in the workplace. The emphasis is on the preparation and presentation of public messages in formats commonly used in business and professional settings. Listening as an oral communication skill in the workplace will be explored, as will the role of intercultural communication in the workplace. Individual speeches, group presentations, and interviews are the major presentations. GE-1B
CMST 215 (2) Effective Listening
This course is designed to provide students with skills of effective listening, and the ability to apply that knowledge in a variety of educational and professional settings.

CMST 220 (1-4) Forensics
Activity course involving participation in intercollegiate speech tournaments. Course can be repeated for credit.

GE-11

CMST 225 (4) Communicating With/Through Technology
A course designed to help students learn effective communication using a variety of contemporary technologies. Students will be better equipped to use communication technologies to communicate personal, professional, and public messages.

Variable

CMST 240 (1-4) Special Topics
Special interest courses devoted to specific topics within the field of communication studies. Topics vary, and course may be retaken for credit under different topic headings.

CMST 290 (4) Communication Research
An introduction to the theory and practice of research in communication studies, including the critical evaluation of contemporary communication research.

CMST 300 (4) Ethics and Free Speech
This course is divided into two sections. First, the class explores ethical parameters involved in communication from a variety of social and cultural perspectives. Second, the class investigates current standards and issues involving freedom of speech.

GE-9

CMST 305 (4) Communication and Community
Students examine everyday communication practices (rituals, stories, symbols) analyzing what discursive practices turn individuals into a community. Students explore the meaning of community through experiential learning by experiencing and reflecting upon the way communication creates, maintains, transforms, and repairs community.

Variable

CMST 310 (4) Performance of Literature
This course is designed to develop the skills to complete the artistic process of studying literature through performance and sharing that study with an audience.

GE-6, GE-11

CMST 320 (1-4) Advanced Forensics
Activity course involving participation in intercollegiate forensics with primary emphasis on applying communication theories to forensic practice. Students may not enroll concurrently with CMST 220. Course may be repeated for an overall total of 4 credits.

Variable

CMST 321 (4) Argumentation and Debate
Development of skills in the analysis, application and evaluation of argumentative communication.

CMST 333 (4) Advanced Public Communication
This is an advanced course in public presentation focused on improving presen- tational skills of speech delivery and language choice.

CMST 340 (1-4) Special Topics
Special interest courses devoted to specific topics within the field of communication studies. Topics vary, and course may be retaken for credit under different topic headings.

CMST 403 (4) Gender and Communication
This course is designed to develop an understanding of how gender and communication interact. Students learn the basic theories and principles of communication as it applies to gender and develop skills to enhance communication between and among gender groups.

Diverse Cultures - Purple

CMST 409 (4) Performance Studies
This course is an overview of key performance studies concepts, including cultural performance, of everyday life, theories of play, social influence, and identity performance. Students will develop and present performances as a means to understand theoretical concepts.

CMST 410 (1-4) Topics in Relational Communication
Special interest courses devoted to specific topics within relationship communication. Topics vary, and course may be retaken for credit under different topic headings. Fall (On-Demand), Spring (On-Demand), Summer (On-Demand)

CMST 412 (4) Organizational Communication
This course is designed to develop an understanding of communication studies in the organizational context. The course will aid each individual in working more effectively within any type of organization through exposure to major theories and works in the area of organizational communication.

CMST 415 (1-4) Topics in Rhetoric and Culture
Special interest courses devoted to specific topics within the intersecting fields of rhetoric and culture. Topics vary, and course may be retaken for credit under different topic headings.

CMST 416 (1-4) Topics in American Public Address
Special interest courses devoted to specific topics within field of American Public Address. Topics vary, and course may be retaken for credit under different topic headings.

CMST 420 (2) Methods: Teaching Communication Arts
This course fulfills secondary licensure requirements for Communication Arts and Literature. This course covers teaching methods and materials needed to develop units for speech communication courses in grades 5-12.

Variable

CMST 425 (2) Methods: Directing and Coaching Forensics
This course fulfills secondary licensure requirements for Communication Arts and Literature. The course covers methods and techniques in the development of competitive speech programs in grades 5-12.

Variable

CMST 435 (4) Forensics Pedagogy
A course designed to give students a theoretical understanding of competitive speech and debate.

Fall

CMST 440 (1-4) Special Topics
A course designed for students who have a general interest in communication studies. Content of each special topics course will be different. May be retaken for credit.

CMST 445 (4) Conflict Management
This theory and research-oriented course examines the relationship between communication and conflict, and is designed to provide students with knowledge and skills in dealing with conflict situations.

CMST 485W (4) Senior Seminar
This is a required capstone course of all Communication Studies majors and involves the completion and presentation of a senior level research project. Teaching majors are excluded from this requirement.

Pre: CMST 190
WI

CMST 490 (1-4) Workshop
Topics vary as announced in class schedules.

CMST 497 (1-12) Teaching Internship
First-hand experience in the classroom assisting a faculty member.

CMST 498 (1-12) Internship
Provides first-hand experience in applying communication theories in the workplace under the direction of an on-site supervisor.

CMST 499 (1-4) Individual Study
Independent study under the supervision of an instructor.
Computer Engineering

College of Science, Engineering & Technology
Department of Electrical and Computer Engineering and Technology
242 Trafton Science Center N • 507-389-5747
Website: www.cset.mnsu.edu/ecet

Chair: Vincent Winstead, P.E., Ph.D.
Program Coordinator: Vincent Winstead, P.E., Ph.D.

Gale Allen, Nannan He, Tom Hendrickson, Han-Way Huang, Harry Jones, Muhammad Khalil, Julio Mandojana, Puteri Megat-Hameri, Vincent Winstead, Xuanhui Wu, Qun Zhang

Accreditation. The Computer Engineering program is accredited by the Engineering Accreditation Commission of ABET, www.ABET.org

Computer Engineering (CE) encompasses the research, development, design and operation of computers and computerized systems and their components. This program leads to a Bachelor of Science in Computer Engineering. The primary objective of the Computer Engineering program is to educate engineering professionals who possess sound design and analytical background coupled with a strong laboratory experience supporting Computer Engineering concepts. This means that the department prepares its graduates for:

1. Entry into the engineering work environment with well-developed design and laboratory skills.
2. Further study toward advanced degrees in engineering and other related disciplines.
3. Advancement into managerial ranks and/or entrepreneurial endeavors.

The educational objectives for our Bachelor of Science in Computer Engineering degree are to prepare our graduates to:

1. Function as responsible members of society with an awareness of the social, ethical, and economic ramifications of their work.
2. Become successful practitioners in engineering and other diverse careers.
3. Succeed in full time graduate and professional studies.
4. Pursue continuing and life-long learning opportunities.
5. Pursue professional registration.
6. Provide foundational education that allows for personal growth and flexibility through their career.

Our metrics for determining success in meeting these objectives will include:
1. Assessment of societal, economic awareness, and ethical performance of our graduates by the graduate and employer.
2. Monitoring of the success of our graduates in the work force.
3. Monitoring of the success of our graduates in graduate and professional programs.
4. Assessment of continuing and life-long learning by the graduate (and their employer as applicable).
5. Reviewing the number and success of our students completing professional registration to advance their careers.

In support of these objectives, the program provides a curriculum including the following components that will prepare students for excellent careers in Computer Engineering:

1. A strong background in the physical sciences; mathematics, including discrete math; and engineering sciences, including extensive hands-on laboratory instruction.
2. An integrated design component including instruction in basic practices and procedures, creativity, control, economics, and synthesis. The process begins with basic instruction during the first year and concludes with a capstone design project.
3. A choice of sub-disciplines in the senior level electives.
4. Opportunities for students to develop sensitivity to the social and humanistic implications of technology and motivate them to make worthwhile contributions to the profession and society, while upholding the highest standards of professional ethics.
5. A course in engineering economics to promote awareness of the economic aspects of engineering.
6. Preparation for continuing study and professional development.

During the senior year, as allowed by the state, students will be required to take the Fundamentals of Engineering (FE) examination or its equivalent as described in GPA Policy below.

The curriculum offers students the opportunity to emphasize a number of specialized areas including advanced digital systems, communications, digital signal processing, networking and system design.

The recommended high school preparation is two years of algebra, one year of geometry, one-half year of trigonometry, one-half year of college algebra, and a year each of physics and chemistry plus a programming language. Without this background it may take students longer than four years to earn a degree. During the first two years students take science and mathematics courses common to all branches of engineering (pre-engineering), as well as supporting work in English, humanities, and social sciences. Second-year computer engineering students complete physics, mathematics and 200-level engineering and computer science courses.

All international students wishing to have transfer credits granted from non-U.S. schools will be required to use the ECE evaluation service to be completed no later than first semester at Minnesota State Mankato.

POLICIES/INFORMATION

Admission to Major. Admission to the college is necessary before enrolling in non-engineering 300- and 400-level courses. Minimum college requirements are:

- a minimum of 32 earned semester credit hours.
- a minimum cumulative GPA of 2.00 ("C-").

Please contact the department for application procedures.

During the spring semester of the sophomore year, students should submit an application form for admission to the Computer Engineering program. Admission to the program is selective and, following applications to the department, subject to approval from the faculty. The department makes a special effort to accommodate transfer students. Only students admitted to the program are permitted to enroll in upper-division engineering courses. No transfer credits are allowed for upper-division engineering courses except by faculty review followed by written permission.

Before being accepted into the program and admitted to 300-level engineering courses (typically in the fall semester), a student must complete a minimum of 67 semester credits including the following:

- General Physics (calculus-based) (12 credits)
- Calculus, Differential Equations (16 credits)
- Electrical Engineering Circuit Analysis I and II (including lab.) (7 credits)
- Chemistry (3 credits)
- English Composition (4 credits)
- Computer Science (3 credits)
- Introduction to Electrical and Computer Engineering (6 credits)
- Discrete Math (4 credits)
- Technical Communications (4 credits)
- Microprocessor course lab (3 credit)
- Digital Systems and Test (including lab) (4 credits)

A cumulative GPA of 2.5 for all science and math courses must have been achieved for program admittance. Grades must be 1.65 ("C-") or better for courses to be accepted.

GPA Policy. Students graduating with a degree in Computer Engineering must have:

1. completed a minimum of 20 semester credit hours of upper division EE and CS courses at Minnesota State Mankato.
2. have a cumulative GPA of 2.25 on all upper division EE and CS courses, and
3. have completed their senior design sequence at Minnesota State Mankato.
4. have taken the Fundamentals of Engineering (FE) exam or its equivalent and achieved the desired competency level.

GPA. A cumulative grade-point average of 2.5 for all science, math and engineering courses must have been maintained. Grades must be 1.65 "C-" or better for
course to be accepted. Minnesota State Mankato students should complete the pre-engineering courses listed under the major.

Petition to evaluate transfer credits must occur no later than the first semester the student is enrolled in or declared a major housed in the Department of Electrical and Computer Engineering Technology.

P/N Grading Policy. A student who majors in CE must elect the grade option for all required courses including courses offered by another department.

COMPUTER ENGINEERING BSCE
Degree completion = 128 credits

Required General Education
CHEM 191 Chemistry Applications (3)
ENG 101 Composition (4)
ENG 271W Technical Communication (4)
MATH 121 Calculus I (4)
PHYS 211 General Physics I (4)
Economics (choose 3 credits)
ECON 201 Principles of Macroeconomics (3)
ECON 202 Principles of Microeconomics (3)

Prerequisites to the Major
CS 111 Computer Science II (4)
EE 106 Introduction to Electrical/Computer Engineering I (3)
EE 107 Introduction to Electrical/Computer Engineering II (3)
EE 230 Circuit Analysis I (3)
EE 231 Circuit Analysis II (3)
EE 234 Microprocessor Engineering I (3)
EE 235 Microprocessor Engineering Laboratory I (1)
EE 240 Evaluation of Circuits (1)
EE 281 Digital System Design with Testability (3)
EE 282 Digital System Design with Testability Lab (1)
MATH 122 Calculus II (4)
MATH 180 Mathematics for Computer Science (4)
MATH 233 Calculus III (4)
MATH 321 Ordinary Differential Equations (4)
PHYS 191 General Physics I (4)
PHYS 232 General Physics II Laboratory (1)
PHYS 233 General Physics III Laboratory (1)

Major Common Core
CS 460 Operating Systems: Design and Implementation (3)
EE 332 Electronics I (3)
EE 333 Electronics II (3)
EE 334 Microprocessor Engineering II (3)
EE 336 Principles of Engineering Design I (1)
EE 337 Principles of Engineering Design II (1)
EE 341 Signals & Systems (3)
EE 342 Electronics Laboratory (1)
EE 344 Microprocessor II Laboratory (1)
EE 350 Engineering Electromagnetics (3)
EE 358 Control Systems (3)
EE 368 Control Systems Laboratory (1)
EE 395 Computer Hardware and Organization (3)
EE 450 Engineering Economics (3)
EE 467W Principles of Engineering Design III (1)
EE 477W Principles of Engineering Design IV (1)
ME 299 Thermal Analysis (2)

Major Restricted Electives (choose 6 credits)
CS 350 Network Architectures (3)
EE 453 Advanced Communications Systems Engineering (3)
EE 471 Advanced Control Systems (3)
EE 472 Digital Signal Processing (3)
EE 473 Electrical Power Systems Analysis and Design (3)
EE 474 Power Electronics (4)
EE 475 Integrated Circuit Engineering (3)
EE 476 Antennas, Propagation, & Microwave Engineering (3)
EE 479 Superconductive Devices (3)
EE 480 Integrated Circuit Fabrication Lab (1)
EE 481 VLSI Design Laboratory (1)
EE 484 VLSI Design (3)
EE 487 RF Systems Engineering (3)
EE 489 Real-time Embedded Systems (4)

Other Graduation Requirements
Choose a minimum of twelve (12) credits of Humanities (6 credits) and Social Sciences (6 credits). For a complete listing of approved Humanities and Social Science courses please consult the department website. In general, graduation credits toward the humanities requirement is not allowed for any course in subject areas such as communication studies, writing, art, music or theatre that involve performance or practice of basic skills. At least three (3) credits of the courses selected to complete the above requirements must be 300-level or above. At least one 300-level course must follow a lower level course in the same subject area.

Analysis/Probability and Statistics (choose 3 credits)
MATH 354 Concepts of Probability & Statistics (3)
ME 291 Engineering Analysis (3)

Required Minor: None.

COURSE DESCRIPTIONS

Computer Science

CS 111 (4) Computer Science II
Continues the exploration of introductory Computer Science begun in CS 110. Focus is on developing basic knowledge of algorithms, programming skills and problem solving techniques. Topics include recursion, sorting, linked lists, stacks and queues. Pre: CS 110 or EE 107. MATH 113 or MATH 115 or MATH 121 Fall, Spring

CS 350 (3) Network Architectures
An introduction to data communications and networks. The field encompasses local area networks, wide area networks, and wireless communication. Topics include digital signals, transmission techniques, error detection and correction, OSI model, TCP/IP model, network topologies, network protocols, and communications hardware. Pre: CS 305 or EE 234 Spring

CS 460 (3) Operating Systems: Design & Implementation
This course studies historical and current concepts and implementations of computer operating systems. Basic operating systems topics include processes, interprocess communication, interprocess synchronization, deadlock, memory allocation, segmentation, paging, resource allocation, scheduling, file systems, storage, devices, protection, security, and privacy. Pre: CS 210 and CS 320 Spring

Electrical Engineering Courses

EE 100 (1) Explorations in Engineering
This course offers an introduction to the various disciplines of engineering and their relationship to the principles of physics and mathematics. Students are prepared for academic success and the transition into an engineering program. Fall

EE 106 (3) Introduction to Electrical/Computer Engineering I
This introductory course covers digital systems topics including binary numbers, logic gates, Boolean algebra, circuit simplification using Karnaugh maps, flip-flops, counters, shift registers and arithmetic circuits. Problem solving methods, study skills and professional development will be addressed throughout the course. Pre: MATH 112 Fall Spring
EE 107 (3) Introduction to Electrical/Computer Engineering II
The course presents algorithmic approaches to problem solving and computer program design using the C language. Students will explore Boolean expressions, implement programs using control structures, modular code and file input/output, and interface with external hardware using robots and sensors.
Pre: EE 106
Spring

EE 230 (3) Circuit Analysis I
This course is meant to develop Electrical Engineering Circuit Analysis skills in DC and AC circuits. It includes circuit laws and theorems, mesh and node analysis. Natural and step response of RL, RC, and RLC circuits.
Pre: PHYS 222 or concurrent, MATH 321 or concurrent
Fall

EE 231 (3) Circuit Analysis II
Continuation of Circuit Analysis I to include special topics in circuit analysis.
Pre: EE 230 and EE 240, MATH 321, PHYS 222
Spring

EE 233 (3) Electronics II
Introduction to discrete and microelectronics circuits including analog and digital electronics. Device characteristics including diodes, BJTs, JFET’s, MOS-FET’s will be studied. DC bias circuits, small and large signal SPICE modeling and analysis and amplifier design and analysis will be discussed.
Pre: EE 231

EE 234 (3) Microprocessor Engineering I
A course that teaches how to write computer assembly language programs, make subroutine calls, perform I/O operations, handle interrupts and resets, interface with a wide variety of peripheral chips to meet the requirements of applications.
Pre: EE 106, EE 107
Coreq: EE 235
Fall

EE 235 (1) Microprocessor Engineering Laboratory I
Use of development boards and assembly language programming to handle interrupts, interface with parallel I/O ports, memory, and timers. Experiments will involve signal and frequency measurements, data conversions, and interface design.
Pre: EE 106, EE 107
Coreq: EE 234

EE 240 (1) Evaluation of Circuits
Pre: Must be taken concurrently with EE 230.
Fall

EE 244 (2) Introduction to Digital Systems
Simple coding schemes, Boolean algebra fundamentals, elements of digital building blocks such as gates, flip-flops, shift registers, memories, etc.; basic engineering aspects of computer architecture.

EE 253 (1) Logic Circuits Lab
Laboratory support to complement EE 244. Use of laboratory instrumentation to measure characteristics of various logic circuits and digital subsystems. Experimental evaluation of digital logic devices and circuits including logic gates, flip-flops, and sequential machines.
Pre: EE 230 and concurrent with EE 244.
Spring

EE 254 (1) Digital and Circuits Lab
Laboratory support for EE 231 and EE 244. Experimental evaluation of AC and transient circuits, digital logic devices including logic gates, flip-flops, and sequential machines.
Pre: EE 230, EE 240 and concurrently with EE 231 and EE 244
Spring

EE 281 (3) Digital System Design with Testability
Introduction to representing digital hardware using a hardware description language. Introduction to implementation technologies such as PAL’s, PLA’S, FPGA’s and Memories. Analysis, synthesis and design of sequential machines; synchronous, pulse mode, asynchronous and incompletely specified logic.
Pre: EE 106, EE 107
Variable

EE 282 (1) Digital System Design with Testability Lab
Laboratory support for EE 282 practical aspects of design and analysis of different types of sequential machines will be presented through laboratory experience.
Coreq: EE 281

EE 298 (1-4) Topics
Varied topics in Electrical and Computer Engineering. May be repeated as topics change.
Pre: to be determined by course topic

EE 303 (3) Introduction to Solid State Devices
Introduction to crystal structure, energy band theory, conduction and optical phenomenon in semiconductors, metals and insulators. Study of equilibrium and non-equilibrium charge distribution, generation, injection, and recombination. Analysis and design of PN-junctions, bipolar transistor, junction) and MOS field-effect transistors. Introduction to transferred electron devices and semiconductor diode laser.
Pre: PHYS 222, and MATH 321
Fall

EE 304 (1) Lab: Introduction to Solid State Devices
Laboratory support for EE 303. Experiments include resistivity and sheet resistance measurements of semiconductor material, probing material, probing of IC chips, PN-junction IV and CV measurements, BJT testing to extract its parameters, MOSFET testing and evaluating its parameters, cv-measurements of MOS structure, and familiarization with surface analysis tools.
Fall

EE 332 (3) Electronics I
Introduction to discrete and microelectronics circuits including analog and digital electronics. Device characteristics including diodes, BJTs, JFET’s, and MOS-FET’s will be studied. DC bias circuits, small and large signal SPICE modeling and analysis and amplifier design and analysis will be discussed.
Pre: EE 231

EE 333 (3) Electronics II
The second course of the electronics sequence presenting concepts of feedback, oscillators, filters, amplifiers, operational amplifiers, hysteresis, bi-stability, and non-linear functional circuits. MOS and bipolar digital electronic circuits, memory, electronic noise, and power switching devices will be studied.
Pre: EE 332

EE 334 (3) Microprocessor Engineering II
A more advanced study of microprocessors and microcontrollers in embedded system design. Use of C language in programming, interrupt interfaces such as SPI, I2C, and CAN. External memory design and on-chip program memory protection are also studied.
Fall

EE 336 (1) Principles of Engineering Design I
Electrical and computer engineering project and program management and evaluation techniques will be studied. Emphasis will be placed on the use of appropriate tools for planning, evaluation, and reporting on electrical and computer engineering projects.
Pre: Junior Standing
Fall
EE 337 (1) Principles of Engineering Design II
Application of the design techniques in the engineering profession. Electrical engineering project and program management and evaluation including computer assisted tools for planning and reporting, design-to-specification techniques and economic constraints.
Pre: EE 336
Spring

EE 341 (3) Signals & Systems
Analysis of linear systems and signals in the time and frequency domain. Laplace and Fourier transforms. Z-transform and discrete Fourier transforms.
Pre: EE 230, MATH 321 and PHYS 222
Fall

EE 342 (1) Electronics Laboratory
This lab is designed to accompany EE 332. The lab covers the experimental measurement and evaluation of diode, BJT, and MOS characteristics; various feedback topologies; oscillator and op-amp circuits; and rectifiers and filter circuitry.
Pre: EE 231 and EE 332 taken concurrently.
Fall

EE 344 (1) Design & Evaluation of Microprocessors
Laboratory support for EE 334. Use of development boards and C Programming language to handle I/O devices, interrupts, and all peripheral functions. Multiple functions such as timers, A/D converters, I/O devices, interrupts, and serial modules will be used together to perform desired operations.
Pre: Concurrent with EE 334
Fall

EE 350 (3) Engineering Electromagnetics
Pre: EE 231, MATH 223, MATH 321 and PHYS 222
Spring

EE 353 (3) Communications Systems Engineering
Pre: EE 341, MATH 223
Spring

EE 358 (3) Control Systems
Pre: EE 341
Spring

EE 363 (1) Communication Systems Laboratory
Pre: Concurrent with EE 353
Spring

EE 368 (1) Control Systems Laboratory
Laboratory support for EE 358. Experimental evaluation of basic control system concepts including transient response and steady state performance. Analog and digital computers.
Pre: EE 341 and concurrent with EE 358
Spring

EE 395 (3) Computer Hardware and Organization
High-level language constructs using a selected assembly language, design alternatives of computer processor datapath and control, memory hierarchy/management unit, use of HDL in describing and verifying combinational and sequential circuits. Design of computer processor and memory system.
Pre: EE 234, EE 235, EE 281
Spring

EE 398 (0) CPT: Co-Operative Experience
Curricular Practical Training: Co-Operative Experience is a zero-credit full-time practical training experience for one summer and on adjacent fall or spring term. Special rules apply to preserve full-time student status. Please contact an advisor in your program for complete information.
Pre: EE 235. At least 60 credits earned; in good standing; instructor permission; co-op contract; other prerequisites may also apply.
Fall, Spring, Summer

EE 450 (3) Engineering Economics
Overview of accounting and finance and their interactions with engineering. Lectures include the development and analysis of financial statements, time value of money, decision making tools, cost of capital, depreciation, project analysis and payback, replacement analysis, and other engineering decision making tools.
Pre: Advanced standing in the program
Fall

EE 453 (3) Advanced Communications Systems Engineering
Behavior of analog systems and digital systems in the presence of noise, principles of digital data transmission, baseband digital modulation, baseband demodulation/detection, bandpass modulation and demodulation of digital signals. Channel coding, modulation and coding trade-offs, spread spectrum techniques, probability and information theory.
Pre: EE 353 and EE 363
Fall

EE 463 (3) Advanced Digital System Design
Design of combinational and sequential systems and peripheral interfaces. Design techniques using MSI and LSI components in an algorithmic state machine; implementation will be stresses. Rigorous timing analysis transmission-line effects and metastability of digital systems will be studied.
Pre: EE 244

EE 467W (1) Principles of Engineering Design III
The design and organization of engineering projects. Project proposals, reporting, feasibility studies, and interpretation. Specification preparation, interpretation, and control. Issues involving creativity, project planning and control, and intellectual property rights. Students enrolled in this course must initiate and complete a design project in a small team format.
Pre: EE 337 and senior standing
Fall
WI

EE 471 (3) Advanced Control Systems
This course is a continuation of EE 358. Techniques for the analysis of continuous and discrete systems are developed. These techniques include pole placement, state estimation, and optimal control.
Pre: EE 358 and EE 368
Fall

EE 472 (3) Digital Signal Processing
Develop design and analysis techniques for discrete signals and systems via Z-transforms, Discrete Fourier Transforms, implementation of FIR and IIR filters. The various concepts will be introduced by the use of general and special purpose hardware and software for digital signal processing.
Pre: EE 341
Spring
EE 473 (3) Electrical Power Systems Analysis and Design
Power generation, transmission and consumption concepts, electrical grid modeling, transmission line modeling, electric network power flow and stability, fault tolerance and fault recovery, economic dispatch, synchronous machines, renewable energy sources and grid interfacing.
Pre: EE 231 or via permission from instructor
Variable

EE 474 (4) Power Electronics
This course is designed to provide students with knowledge of the design and analysis of static power conversion and control systems. The course will cover the electrical characteristics and properties of power semiconductor switching devices, converter power circuit topologies, and the control techniques used in the applications of power electronic systems. Laboratories consist of computer-based modeling and simulation exercises, as well as hands-on laboratory experiments on basic converter circuits and control schemes.
Pre: EE 333
Spring

EE 475 (3) Integrated Circuit Engineering
Introduction to theory and techniques of integrated circuit fabrication processes, oxidation, photolithography, etching, diffusion of impurities, ion implantation, epitaxy, metallization, material characterization techniques, and VLSI process integration, their design and simulation by SUPREM.
Pre: EE 303 and EE 332
Fall

EE 476 (3) Antennas, Propagation, & Microwave Engineering
Principles of electromagnetic radiation, antenna parameters, dipoles, antenna arrays, long wire antennas, Microwave antennas, Mechanisms of radiowave propagation, scattering by rain, sea water propagation, guided wave propagation, periodic structures, transmission lines, microwave/millimeter wave amplifiers and oscillators, MIC & MMIC technology.
Pre: EE 350
Variable

EE 477W (1) Principles of Engineering Design IV
Completion of design projects and reports. Lectures on ethics, issues in contracting and liability, concurrent engineering, ergonomics and environmental issues, economics and manufacturability, reliability and product lifetimes. Lectures by faculty and practicing engineers.
Pre: EE 467 and Senior Standing
Spring
WI

EE 479 (3) Superconductive Devices
Pre: EE 303
Variable

EE 480 (1) Integrated Circuit Fabrication Lab
Introduction to integrated circuit fabrication processes, device layout, mask design, and experiments related to wafer cleaning, etching, thermal oxidation, thermal diffusion, photolithography, and metallization. Fabrication of basic integrated circuit elements pn junction, resistors, MOS capacitors, BJT and MOSFET in integrated form. Use of analytic tools for in process characterization and simulation of the fabrication process by SUPREM.
Pre: Concurrent with EE 475
Fall

EE 481 (1) VLSI Design Laboratory
This laboratory accompanies EE 484. The laboratory covers the basics of layout rules, chip floor planning, the structure of standard cells and hierarchical design, parasitic elements, routing, and loading. Students will learn to design and layout standard cells as well as how to use these cells to produce complex circuits. The laboratory culminates with the individual design and layout of a circuit.
Pre: Concurrent with EE 484
Spring

EE 482 (3) Electromechanics
Electrical power and magnetic circuit concepts, switch-mode converters, mechanical electromechanical energy conversion, DC motor drives, feedback controllers, AC machines and space vectors, permanent magnet AC machines and drives, induction motors and speed control of induction motors, stepper motors.
Pre: EE 230
Fall

EE 484 (3) VLSI Design
Pre: EE 333
Spring

EE 487 (3) RF Systems Engineering
Pre: EE 353 and EE 363
Variable

EE 489 (4) Real-time Embedded Systems
This course introduces students the recent advances in real-time embedded systems design. Topics cover real-time scheduling approaches such as clock-driven scheduling and static and dynamic priority driven scheduling, resource handling, timing analysis, inter-task communication and synchronization, real-time operating systems (RTOS), hard and soft real-time systems, distributed real-time systems, concepts and software tools involved in the modeling, design, analysis and verification of real-time systems.
Pre: EE 107, EE 334, EE 395
Variable

EE 491 (1-4) In-Service

EE 494 (1) Global Experience in Engineering and Technology
This class provides students pursuing a minor in "Global Solutions in Engineering and Technology" with an opportunity to explore a set of topics related to achieving success in advance of and following an international experience (internship, study abroad, etc.). Speakers will include faculty, graduate students, visiting researchers and industry members as well as student participants. Returning students will be required to participate in mentoring of students preparing for their international experience and provide written and/or oral presentations of various topics during the semester. This course is required both before and after participation in the international experience (min. 2 cr.)
Variable

EE 497 (1-6) Internship

EE 498 (1-4) Topics
Varied topics in Electrical and Computer Engineering. May be repeated as topics change.
Pre: to be determined by course topic

EE 499 (1-6) Individual Study
Computer Engineering Technology

College of Science, Engineering & Technology

Department of Electrical and Computer Engineering and Technology
242 Trafton Science Center N • 507-389-5747
Website: www.cset.mnsu.edu/ecet

Chair: Vincent Winstead, P.E., Ph.D
Program Coordinator: Vincent Winstead, P.E., Ph.D

Gale Allen, Nannan He, Tom Hendrickson, Han-Way Huang, Harry Jones, Muhammad Khalij, Julio Mandojana, Puteri Megat-Hamari, Vincent Winstead, Xuanhui Wu, Qun Zhang

Accreditation. The Computer Engineering Technology program is accredited by the Engineering Technology Accreditation Commission of ABET, 415 N. Charles Street, Baltimore, MD 21201, 410.347.7700, www.ABET.org

Computer Engineering Technology is a technological field requiring the application of scientific and engineering knowledge and methods, combined with technical skills, in support of computer activities. A computer engineering technologist is a person who is knowledgeable in computer hardware and software theory and design and who can apply them to a variety of industrial and consumer problems. Computers, controls/automation, robotics, instrumentation, and communications are just a few fields open to computer engineering technologists.

The program strives to prepare students for successful entry into the technical workforce. This means that the curriculum prepares students to:
1. Apply knowledge of mathematics, science, and computer engineering to problems.
2. Design and construct experiments and analyze and interpret the resulting data.
3. Design systems, components, or processes to meet specified needs.
4. Function effectively in teams.
5. Identify, formulate, and solve problems in computer engineering technology.
6. Understand their professional and ethical responsibilities.
7. Communicate effectively.

Our metrics for determining success in meeting these objectives will include:
1. Assessment of societal, economic awareness, and ethical performance of our graduates by the graduate and employer.
2. Monitoring of the success of our graduates in the workforce.
3. Assessment of continuing and life-long learning by the graduate (and their employer as applicable).
4. Ongoing contact with graduates to determine career paths and challenges confronted.

POLICIES/INFORMATION

Admission to Major is granted by the department. Minimum program admission requirements are:
- a minimum of 32 earned semester credit hours.
- a minimum cumulative GPA of 2.00 (“C”).

Contact the department for application procedures.

Students who do not have the required background for MATH 115 may have to take additional preparatory coursework as well. Consult with your major adviser to plan your general education and major requirements. Grades must be 1.67 “C-” or better for courses taken at Minnesota State Mankato to be accepted.

All students must complete a minimum of 12 semester credits of mathematics starting with Precalculus math and a minimum of 24 semester credits of mathematics and science courses.

GPA Policy. Students graduating with a degree in Computer Engineering Technology must have:
1. completed a minimum of 20 semester credit hours of upper division EET at Minnesota State Mankato,
2. have a cumulative GPA of 2.0 or better on all upper division EET courses, and
3. have completed their senior design sequence (EET 461 and EET 462) at Minnesota State Mankato.
4. Grades must be 1.67 “C-” or better for courses taken at Minnesota State Mankato to be accepted.

P/N Grading Policy. A student who majors in CET must elect the grade option for all required courses including general education courses listed by number even if offered by another department.

If the credits earned for composition, and speech courses equal less than 9 credits, either an advanced speech course or a course in English literature must be added as a general elective.

Transfer of credit to the CET major is subject to policies described in this catalog for all students transferring to Minnesota State Mankato and to the following department policies:
1. All transfer students must take EET 221 if not proficient with current Minnesota State Mankato software.
2. For courses taken at technical colleges/vocational technical schools and pertinent courses taken in the military the student may receive up to 8 credits upon review of course materials, grades and written approval by the program coordinator. These credits may be used for EET 112, EET 113, and EET 114.
3. For courses taken at community colleges and four-year colleges, up to 25 credits may be accepted if the transcript is from an ABET-accredited program. If the program is not accredited by ABET, up to 20 credits may be accepted. Grades of transfer credits must be “C” or better to be accepted for substitution for required courses.

Petition to evaluate transfer credits must occur no later than the first semester the student is enrolled in or declared a major housed in the Department of Electrical and Computer Engineering and Technology.

All international students wishing to have transfer credits granted from non-U.S. schools will be required to use the ECE evaluation service to be completed no later than first semester at Minnesota State Mankato.

Testing for course credit will be available via prior application made with the program coordinator. Students may not apply for credit by examination for an EET course in which they were previously enrolled at Minnesota State Mankato or for any EET course above EET 223.

COMPUTER ENGINEERING TECHNOLOGY BS

Degree completion = 128 credits

Required General Education
CMST 102 Public Speaking (3)
ENG 101 Composition (4)

Pre-requisites to the Major
EET 113 DC Circuits (3)
EET 114 AC Circuits (3)
EET 141 Integrated Computer Technology I (4)
EET 142 Integrated Computer Technology II (4)
EET 143 Integrated Computer Technology III (4)
EET 221 Electronic CAD (3)
EET 222 Electronics I (4)
EET 223 Electronics II (4)
EET 254 Microprocessors I (4)
MATH 115 Precalculus Mathematics (4)
MATH 121 Calculus I (4)
MATH 127 Calculus II for Engineering Technology: Integration (2)
PHYS 211 Principles of Physics I (4)
PHYS 212 Principles of Physics II (4)
Major Common Core
Three (3) credits of EET 497 may be used to satisfy major common core requirements.
CHEM 104 Introduction to Chemistry (3)
EET 310 Programming Tools (4)
EET 341 Electronics Shop Practices (2)
EET 430 Computer Networking I (4)
EET 441 Embedded Systems (4)
EET 456 Analog Communications I (4)
EET 461 Industrial Automation I (4)
EET 462 Industrial Automation II (4)
EET 484 Microprocessors II (4)
EET 497 Internship (3)
MATH 180 Mathematics for Computer Science (4)
MET 427 Quality Management Systems (3)

Major Restricted Electives
Choose a minimum of 6 credits from 300-level and 400-level courses with advisor’s approval.

Major Unrestricted Electives
(choose one of the following courses)
STAT 154 Elementary Statistics (3)
STAT 354 Concepts of Probability and Statistics (3)

Required Minor: None.

COURSE DESCRIPTIONS

EET 112 (3) Elementary Electricity and Electronics
The basic elements of electricity and electronics are explored in an internet enabled, self-paced course. Laboratories make use of a Virtual Laboratory environment to provide experience with issues in wiring, power, circuits, and digital electronics.
Fall, Spring
GE-3

EET 113 (3) DC Circuits
A study of DC electrical circuits, Kirchhoff’s laws, series and parallel circuits, inductors, capacitors, circuit response to RL, RC and RLC circuits. Thevenin’s equivalent circuit theorem, and other network analysis theorems. Use of dependent sources in DC circuits.
Pre: MATH 115, or concurrent
Fall, Spring

EET 114 (3) AC Circuits
Pre: EET 113
Fall, Spring

EET 115 (3) Understanding Computers
A self-paced, interactive, multi-media course, for non-engineering students, exploring the basics of computer hardware. The course will cover concepts behind computer design and operation, including issues such as the need for RAM, hard drive, memory, ROM, etc.
Fall, Spring
GE-13

EET 116 (3) Communications-Past, Present & Future
This is an introductory course in the use of technology for communication. During the semester students will study the evolution of communications technology from early days to the present. This course will cover wireless, analog, and digital techniques including telephony, the internet, and mobile formats. The student will study theory and principles involved in the different types of communications. Modern techniques in digital communications will be discussed and demonstrated through simulation. A consumer example of digital communication will be given.
Variable
GE-13

EET 117 (3) Introduction to Digital Electronics
Hands-on experiences in the use of digital integrated circuits and logic families. Students will study logic gates, number systems, flip flops, latches, registers, computer arithmetic and memory. A self paced format with an open laboratory format.
Variable

EET 118 (3) Electricity - Generation, Usage & Green Alternatives
This course covers the development and status of electrical power as a global resource. This includes usage, generation, and impact on societies throughout the world. Finally, the course will examine the many renewable generation options.
Variable
GE-3, GE-8

EET 125 (3) Perspective on Technology
Historical, cultural, ethical, philosophical, developmental, and creative aspects of engineering and technology as a discipline are explored. The course also examines concepts and events leading to important innovations of recent times; microwave ovens, FACX machines, personal computers, traffic signals, and video games.
Fall
GE-6, GE-8
Diverse Cultures - Purple

EET 141 (4) Integrated Computer Technology I
Digital circuit, logic, and C programming skills needed for electronic and computer engineering technology. Covers binary arithmetic, clock distribution, timing, TTL, CMOS, logic gates, Boolean algebra, multiplexer, counter, adder, logic simulation, C language elements, C programming techniques and use of digital test equipment. Students design and build an Arithmetic Logic Unit (ALU) from small-scale logic components and simulate each block in C.
Coreq: EET 113
Fall

EET 142 (4) Integrated Computer Technology II
Continues building digital circuit, logic, and C programming skills needed for electronic and computer engineering technology. Covers comparators, decoding, encoding, multiplexers, flip-flops, Schmitt Trigger, C functions, arrays, variables, recursive functions, structures, and strings. Students design, build and test a microprocessor using TTL gates and simulate each block in C.
Pre: EET 141
Spring

EET 143 (4) Integrated Computer Technology III
Sequential circuits, logic timing, clock distribution, counter, LED display, shift register, transceiver, 555 timer, 555 oscillator, D/A converter, RAM, ROM, mass memory, synchronous logic, asynchronous logic, microprocessor-interfacing, testability, and simulation.
Pre: EET 142
Fall

EET 221 (3) Electronic CAD
Drafting Principles involving use of computer electronic CAD software in laying out block diagrams, schematic diagrams, production drawings, graphical presentation of data, and printed circuit board layout and construction.
Pre: EET 113
Fall

EET 222 (4) Electronics I
An introduction to semiconductor theory and circuits: includes characteristics curves, biasing techniques and small signal analysis of FETs and MOSFETs, feedback concept, BJT and FETs frequency response.
Pre: EET 113
Fall

EET 223 (4) Electronics II
An introduction to differential amplifier, linear and nonlinear operational amplifiers, power amplifiers, linear digital ICs, oscillators, power supplies, D/A, A/D conversion, four layered devices and their applications.
Pre: EET 222
Coreq: EET 114
Spring
EET 254 (4) Microprocessors I
A study of microcomputer hardware and software fundamentals, the instruction set and the addressing modes of a microprocessor/microcontroller, assembly programming, basic I/O concepts, parallel I/O methods, asynchronous serial I/O methods, synchronous serial I/O methods, A/D conversion, and timer applications.
Pre: EET 113
Spring

EET 298 (1–4) Topics
Varied topics in Electronic and Computer Engineering Technology. May be repeated as topics change.
Pre: to be determined by course topic

EET 310 (4) Programming Tools
Several programming tools and their use in creating electronic hardware systems are covered in this course. Creating special-purpose hardware using numerical analysis programs written in C. Creating hardware utilizing Visual applications written in C. Use of scripting languages in hardware applications. Using Excel for input-output functions.
Pre: EET 143, EET 222 and EET 254

EET 315 (3) Programmable Instrumentation
Instrumentation system design and integration with sensors, actuators and other electronic indicator components. Programming in a block diagram environment and with embedded C to interface different hardware components.
Pre: MATH 113 or MATH 115

EET 340 (4) Programmable Hardware Technology
Create working programmable hardware using FPGA, GAL and other logic technology. Use industry standard tools such as Verilog, Xilinx, Orcad and Multisim along with development kits and extension boards to implement programmable systems. Interface LED displays, switches and I/O devices with programmable logic to create processing systems. Evolution of programmable logic and analog circuits.
Pre: EET 143
Spring

EET 341 (2) Electronic Shop Practices
An introduction to tools, equipment, materials, and techniques used in fabrication of electronic projects and printed circuit boards.
Pre: EET 142
Spring

EET 355 (3) Electrical Power Systems
Electrical power and magnetic circuit concepts, transformers, generators and motors (DC, synchronous, induction), special purpose motors, power-electronic motor drivers, prime movers/alternatives, generation, transmission/distribution, system stability/protection.
Pre: PHYS 212
Fall

EET 393 (1–4) Practicum
Elective credit for approved experience in off-campus work related to EET major.
Pre: Permission required.
Fall, Spring

EET 398 (0) CPT: Co-Operative Experience
Curricular Practical Training: Co-Operative Experience is a zero-credit full-time practical training experience for one summer and on adjacent fall or spring term. Special rules apply to preserve full-time student status. Please contact an advisor in your program for complete information.
Pre: EET 223. At least 60 credits earned; in good standing; instructor permission; co-op contract; other prerequisites may also apply.
Fall, Spring, Summer

EET 430 (4) Computer Networking I
An introduction to the basic foundations of computer networking. The course will encompass telecommunications, local area networks, wide area networks and wireless communication. Topics covered include OSI model, the TCP/IP MODEL, different network topologies and associated hardware, error detection and correction, protocols, and security.
Pre: EET 143, EET 223, EET 254
Fall

EET 431 (4) Computer Networking II
Pre: EET 430
Spring

EET 441 (4) Embedded Systems
Design and prototyping of embedded systems including both hardware and software components. A variety of hardware, software, sensors and displays will be used depending on the embedded system requirements. Issues related to hardware and software specifications will be studied as well as appropriate documentation standards.
Pre: EET 143
Spring

EET 452 (3) Operational Amplifier Applications
Operational amplifier circuits utilized in filters, sensors, comparators, voltage regulators, device testing, measurement systems, multipliers, phase-locked loops, and A/D converters. Differential amplifier basics. Linear integrated circuit processing.
Pre: EET 223 and MATH 121
Fall

EET 455 (3) Power Electronics
Use of solid-state switching devices in the conversion and control of electrical energy for low power and high power applications such as switched-mode regulated DC power supplies, motor speed control, lighting control, uninterruptible power supplies and HVDC transmission.
Pre: EET 143
Variable

EET 456 (4) Analog Communications
Communications principles and systems. Practical engineering aspects involved in modulation-demodulation, receivers, transmitters and filters. Also included are radiation and antennas, guided waves, microwaves, and microwave systems.
Pre: EET 222
Spring

EET 458 (1) Advanced Instrumentation
Experiences with electronic equipment and instrumentation including maintenance, repair, calibration, safety and component identification.
Pre: 25 hours of EET courses, or consent
Spring

EET 461 (4) Industrial Automation I
Automation components and subsystems involving sensors, transistors, logic, amplifiers, software, microprocessors, PLCs, actuators, encoders, stages, motors, controllers, and drives. Students design, simulate, build, test and document automation systems for Capstone projects.
Pre: EET 223 and EET 254
Fall

EET 462 (4) Industrial Automation II
Continues building skills in automation components and subsystems involving sensors, transistors, logic, amplifiers, software, microprocessors, PLCs, actuators, encoders, stages, motors, controllers and drives. Students design, simulate, build, test and document automation systems for Capstone projects.
Pre: EET 461
Spring

EET 484 (4) Microprocessors II
A study of a high performance microprocessor architecture. Applications of a microprocessor for monitoring and controlling systems will be studied. Optimal utilization of a microprocessors resources will be stressed. PC programming in assembly and a high level language.
Pre: EET 143
Fall
EET 486 (3) Digital Communications
Pre: EET 142, EET 222
Variable

EET 487 (3) RF Systems Technology
Pre: EET 223
Variable

EET 491 (1-4) In-Service

EET 492 (4) Integrated Circuit Technology
Semiconductor industry and overview of integrated circuit manufacturing, integrated circuit types, crystal growth and wafer manufacturing, physics of semiconductor materials, detail of major IC fabrication steps, process yield, semiconductor devices and integrated circuit formation, packaging, and semiconductor measurements, introduction to layout tools.
Pre: EET 223
Spring

EET 494 (1) Global Experience in Engineering and Technology
This class provides students pursuing a minor in “Global Solutions in Engineering and Technology” with an opportunity to explore a set of topics related to achieving success in advance of and following an international experience (internship, study abroad, etc.). Speakers will include faculty, graduate students, visiting researchers and industry members as well as student participants. Returning students will be required to participate in mentoring of students preparing for their international experience and provide written and/or oral presentations of various topics during the semester. This course is required both before and after participation in the international experience (min. 2 cr.)
Variable

EET 497 (1-6) Internship
Should be taken at end of junior year. Permission required. Pre: 40 hrs EET credits or written permission from program coordinator.
Fall, Spring

EET 498 (1-4) Topics
Varied topics in Electronic and Computer Engineering Technology. May be repeated as topics change.
Pre: to be determined by course topic

EET 499 (1-4) Individual Study
Fall, Spring

Computer Information Technology

Computer Information Technology (CIT) in its broadest sense encompasses all aspects of computing technology. CIT, as an academic discipline, focuses on meeting the needs of users within an organizational and societal context through the selection, creation, application, integration and administration of computing technologies. The aim is to provide CIT major graduates with the skills and knowledge to take on appropriate professional positions upon graduation and grow into leadership positions or pursue research or graduate studies in the field. The CIT program also has five minors.

Policies/Information

Admission to the CIT program is granted by the department. Admission to the program is required before the student is permitted to take 300- and 400-level courses.

Requirements for admission to the CIT program are:
- A minimum of 32 earned semester credits
- Completion of MATH 121 or MATH 181 with a grade of “C” or better
- Completion of ENG 101 with a grade of “C” or better
- Completion of IT 210, and IT 214 with a grade of “C” or better and a GPA of 2.5 in these courses (or their equivalents).

GPA Policy. The completion of any major or minor in the Department of Computer Information Science requires both:
- a GPA of 2.5 or higher for all departmental courses (IT), or their substitutions, used to complete the major or minor, and
- a GPA of 2.5 or higher for all courses, or their substitutions, used to complete the major or minor. This includes all departmental courses, supporting courses, and General Education courses required for the major or minor.

It is recommended that students who cannot maintain a GPA of 3.0 in required 100 and 200 level courses see their advisor for a program review.

Grade Policy. All coursework used to complete a departmental major or minor, including required courses, required supporting courses, and required General Education courses, must be taken for a letter grade except for courses offered only as P/N.

No course completed with a grade of “D” can be used to complete a departmental major or minor program, or to meet a departmental prerequisite.

Registration Hold Policy. The department will place a registration hold on any student who earns a “D” or “F” in any of its courses. The department will also place such a hold on any student who drops any of its courses after the first two weeks of the semester. A student with a registration hold cannot register for courses until the hold is released, which requires filling out an appeal form and taking it to the student’s advisor for discussion. Appeal forms are available from the departmental office. This hold policy does NOT apply to students who are taking 100-level IT courses.

Dual Major Policy. Students can earn at most one undergraduate major from this department.

Incomplete Policy. The department gives incomplete grades for only two conditions. The first condition is illness, which requires a doctor’s written recommendation. The second condition arises when a death in the student’s family has caused the student to be away from the campus for an extended period. The student must have a satisfactory grade (“C” or better) in the course at the time of the onset of the condition.
Required General Education

ENG 101 Composition (4)
IT 202W Computers in Society (4)
STAT 154 Elementary Statistics (3)

(choose one of the following MATH Courses) (3-4 credits)
MATH 121 Calculus I (4)
MATH 181 Intuitive Calculus (3)

(choose one of the following CMST Courses) (3 credits)
CMST 100 Fundamentals of Communication (3)
CMST 102 Public Speaking (3)
CMST 212 Professional Communication and Interviewing (3)

Major Core

Three credits of IT 497 are required for the major. Additional credits may only be used to satisfy degree requirements.

ENG 271W Technical Communication (4)
IT 210 Fundamentals of Programming (4)
IT 214 Fundamentals of Software Development (4)
IT 320 Machine Structures and Operating Systems (4)
IT 340 Introduction to Database Systems (4)
IT 350 Information Security (4)
IT 360 Introduction to Networking (4)
IT 380 Systems Analysis & Design (4)
IT 440 Database Management Systems II (4)
IT 444 Data Mining and Warehousing (4)
IT 483 Web Applications and User Interface Design (4)
IT 497 Internship (1-12)

Major Restricted Electives

CHOOSE ONE CLUSTER

**Cluster A** (choose 8 credits)
IT 442 Database Security, Auditing and Disaster Recovery (4)
IT 444 Data Mining and Warehousing (4)
IT 450 Information Warfare (4)

**Cluster B** (choose 8 credits)
IT 442 Database Security, Auditing and Disaster Recovery (4)
IT 450 Information Warfare (4)
IT 460 Network and Security Protocols (4)
IT 462 Network Security, Administration and Programming (4)

**Cluster C** (choose 8 credits)
IT 310 Data Structures & Algorithms (4)
IT 311 Business Application Programming (4)
IT 414 Advanced Object-Oriented Programming with Design Patterns (4)
IT 482 Human Computer Interaction (4)
IT 484 Software Engineering (4)

Required Minor: Yes, Any (Computer Science excluded)

**COMPUTER INFORMATION SCIENCE MINOR**

Required for Minor
IT 210 Fundamentals of Programming (4)
IT 214 Fundamentals of Software Development (4)
IT 320 Machine Structures and Operating Systems (4)

IT 483 Web Applications and User Interface Design (4)

**SOFTWARE DEVELOPMENT MINOR**

Required for Minor
IT 210 Fundamentals of Programming (4)
IT 214 Fundamentals of Software Development (4)
IT 310 Data Structures and Algorithms (4)
IT 380 Systems Analysis and Design (4)

**DATABASE TECHNOLOGIES MINOR**

Required for Minor
IT 210 Fundamentals of Programming (4)
IT 214 Fundamentals of Software Development (4)
IT 340 Introduction to Database Systems (4)
IT 440 Database Management Systems II (4)
IT 442 Database Security, Auditing, and Disaster Recovery (4)
IT 444 Data Mining and Warehousing (4)

**INTERNATIONAL TECHNOLOGY MINOR**

This minor is designed to allow the student to gain technology project experience in a cross-cultural and cross-disciplinary environment. The student will participate in the process of conceiving, designing and implementing technological solutions/products in this environment.

Minor Core

Study abroad to earn at least 12 credits. For international students, this must be in a country whose culture differs significantly from the student’s home country. The international program of study must be approved by both the student’s advisor and by the chair of the Computer Information Science Department. The 12 credits can be taken as IT 390 or as other courses as determined and approved by the student, advisor, and CIS chair.

Elective

For Majors in CIS Department (choose 8 credits)
When this minor accompanies a major from the Computer Information Science Department, choose 8 credits of 300- and 400-level IT courses. These courses must not be included among those used to complete the requirements for the major.
IT 300 - IT 499

For Majors from another department (choose 8 credits)
When this minor accompanies a major from another department, choose 8 credits of IT courses numbered 200 and above.
IT 200 - IT 499

**NETWORKING AND INFORMATION SECURITY MINOR**

Required for Minor
IT 210 Fundamentals of Programming (4)
IT 214 Fundamentals of Software Development (4)
IT 350 Information Security (4)
IT 360 Introduction to Networking (4)

IT 450 Information Warfare (4)
IT 460 Network and Security Protocols (4)
IT 462 Network Administration and Programming (4)

**COMPUTER TECHNOLOGY MINOR**

Required for Minor
IT 100 Introduction to Computing and Applications (4)
IT 202W Computers in Society (4)
IT 210 Fundamentals of Programming (4)
IT 300 - IT 499

IT 310 Data Structures and Algorithms (4)
IT 380 Systems Analysis and Design (4)
(choose one for the following courses)

**CERTIFICATE PROGRAMS**

Requirements for Certificate Programs in Computer Information Technology.

**Admission Requirements**
Knowledge of programming (equivalent of IT 210 and IT 214) or equivalent programming experience.

**Pre-requisites Requirements**
For the Undergraduate Certificate Programs in IT, all of the Certificates’ pre-requisite requirements can be met through Minnesota State Mankato coursework, transfers, substitutions and/or waivers, as may be appropriate.

**Completion Requirements**
Without exception, the twelve credits of coursework required for each Certificate must all be completed in the Department of Computer Information Science at Minnesota State University, Mankato.

**CERTIFICATE IN DATABASE TECHNOLOGIES**
The Database Technologies undergraduate certificate provides students with the necessary knowledge to apply information technology principles and theory so they are able to address real world business and organizational challenges and opportunities. This certificate focuses on planning, designing, programming and developing secure databases, and the challenges and specific issues in maintaining, managing and securing databases. Students are introduced to the security challenges and threats in database systems and are provided an understanding of the state-of-the-art security technologies, and data recovery strategies.

**Pre-requisites.** Students must have fundamental knowledge or experience of database (equivalent of IT 340). Students planning to take IT 442 must also have knowledge or experience of information security (equivalent of IT 350). Students planning to take IT 483 must have basic knowledge or experience of database (equivalent of IT 340).

(choose three of the following courses) (12 credits)

- IT 440 Database Management Systems II (4)
- IT 442 Database Security, Auditing, and Disaster Recovery (4)
- IT 444 Data Mining and Warehousing (4)
- IT 483 Web Application and User Interface Design (4)

**CERTIFICATE IN INFORMATION SECURITY**
The Information Security certificate provides students with the necessary knowledge in information security principles and practices and an understanding of how information security functions in an organization from both business and technology aspects. The program will engage students with a thorough review of viruses, worms, backdoors, Trojan horses, Rootkits, and other threats. Students will analyze malware in order to understand the infection, propagation, and deception mechanisms of these attack vectors. It will also focus on risk assessment to identify reasonably foreseeable internal and external risks to the security, confidentiality and integrity of user information and assess the sufficiency of any safeguards in place to control these risks.

**Pre-requisites.** Students planning to take IT 460 must have basic knowledge of or experience in data communications and networking (equivalent of IT 360). Students planning to take IT 442 must have basic knowledge of or experience in databases (equivalent of IT 340).

(choose three of the following courses) (12 credits)

- IT 350 Information Security (4)
- IT 442 Database Security, Auditing, and Disaster Recovery (4)
- IT 450 Information Warfare (4)
- IT 460 Network and Security Protocols (4)

**CERTIFICATE IN NETWORKING TECHNOLOGIES**
The Networking Technologies certificate provides students with the necessary knowledge in networking principles, administration, programming, security issues and practices so that they are able to apply them in real world organizational challenges and opportunities. The students completing this certificate program will understand and evaluate current and emerging networking and security technologies and assess their applicability to address the needs of individuals and organizations.

**Pre-requisites.** Students planning to take IT 462 must have basic knowledge of or experience in information security (equivalent of IT 350). Students planning to take IT 483 must have basic knowledge of or experience in databases (equivalent of IT 340).

(choose three of the following courses) (12 credits)

- IT 360 Introduction to Networking (4)
- IT 460 Network and Security Protocols (4)
- IT 462 Network Administration and Programming (4)
- IT 483 Web Application and User Interface Design (4)

**CERTIFICATE IN SOFTWARE DEVELOPMENT**
The software development certificate provides the students with an understanding of the successful delivery of software projects that support organizational goals. Students gain knowledge in the use of tools necessary to organize project objectives, create realistic plans, and build and manage an accomplished team through every phase of the software development project. Students gain practical skills needed to meet today’s demands for faster and more efficient development.

**Pre-requisites:** Students must have fundamental knowledge of or experience in systems analysis and design (equivalent of IT 380). Students planning to take IT 414 must also have basic knowledge of or experience in data structures and databases (equivalent of IT 310 and IT 340). Students planning to take IT 483 must have basic knowledge of or experience in databases (equivalent of IT 340).

(choose three of the following courses) (12 credits)

- IT 414 Advanced Object-Oriented Programming w/Design Patterns (4)
- IT 480 Software Quality Assurance and Testing (4)
- IT 482 Human Computer Interaction (4)
- IT 483 Web Applications and User Interface Design (4)
- IT 484 Software Engineering (4)

**COURSE DESCRIPTIONS**

**IT 100 (4) Introduction to Computing and Applications**
Basic foundations in computer concepts. Topics include: hardware, software, uses of technology in industry, and ethical, and social issues. Lab work covers various systems and applications software including word processing, email, the Internet, spreadsheets, databases, and presentation software.

Fall, Spring

GE-9, GE-13

**IT 101 (3) Introduction to Information Systems**
Introduction to personal computers as productivity tools for business majors. Using Microsoft Office suite, students learn to be productive with document processing, spreadsheets, electronic presentations, and databases. Cannot be used toward any major or minor in Information Systems & Information Technology.

Fall, Spring

**IT 201 (2) Introduction to Assistive Technology**
This course introduces students to assistive technology and its applicability to people with various disabilities. Hardware and software demonstrations with an emphasis placed on inexpensive and readily available solutions. Extensive use of the Internet will be employed to keep current with latest technology and to facilitate a continuing dialogue with instructor.

Variable

**IT 202W (4) Computers in Society**
Students prepare written summaries and oral presentations related to the complex social and ethical issues associated with computers. Through thoughtful questions, informative readings, and analysis of opposing viewpoints, participants gain insight into the complexity of technology-related issues in a world without clearly defined borders.

Fall, Spring

W1, GE-9, GE-13

**IT 210 (4) Fundamentals of Programming**
This is the first course for students planning to major or minor in Information Systems or Information Technology. Programming in a high-level language, abstraction and problem-solving skills are emphasized.

Pre: MATH 112, MATH 115, MATH 121, MATH 181 or a Math placement score permitting placement in a course that requires any of these as a prerequisite.

Fall, Spring
IT 214 (4) Fundamentals of Software Development
A continuation of IT 210, IT 214 introduces object-oriented concepts, programming techniques, lists, stacks, queues, and trees. Students are expected to produce larger applications, utilizing multiple compilation units.
Pre: A 3.0 or higher grade in IT 210 or in an approved substitute is required, MATH 121 or MATH 180 or MATH 181
Fall, Spring

IT 296 (1-2) Introduction to Selected Topics
Special topics not covered in other 100- and 200-level courses. May be repeated for each new topic.

IT 310 (4) Data Structures & Algorithms
Study of trees, hashing, and graph algorithms. Analysis of algorithms, memory management, and proof techniques.
Pre: IT 214
Variable

IT 311 (4) Business Application Programming
Business application development using a non-object oriented programming language. Emphasis on principles of application programming such as control breaks, read a record/write a line, driver, shared sub-routines, pass by reference, and sub-programming. File concepts emphasized include index-sequential file handling, CRUD, heap files, sorting, transaction, and master files. Programming concepts include input-processing-output definitions, understanding requirements, structure charts, program documentation, and programming standards. Large group project is completed during semester.
Pre: IT 214
Spring

IT 320 (4) Machine Structures and Operating Systems
Introduction to computer hardware, Boolean logic, digital circuits, data representations, digital arithmetic, digital storage, performance metrics, pipelining, memory hierarchy, and I/O; Operating System concepts, interface, multi-tasking, threads, memory and file management, tools.
Pre: IT 214
Fall, Spring

IT 340 (4) Introduction to Database Systems
Introduction to database systems, entity relationship models, relational algebra, database design, data modeling, normalization, and conversion of business rules into relational model. Introduction to basic SQL including subqueries, joins, functions, sequences, triggers, views, and stored procedures.
Pre: IT 210, a 3.0 or higher grade in IT 210 or in an approved substitute is required.
Fall, Spring

IT 350 (4) Information Security
Security concepts and mechanisms; security technologies; authentication mechanisms; mandatory and discretionary controls; cryptography and applications; threats; intrusion detection and prevention; regulations; vulnerability assessment; information assurance; forensics; anonymity and privacy issues; disaster recovery planning, legal issues and ethics.
Pre: a 3.0 or higher grade in IT 210 or in an approved substitute is required.
Fall, Spring

IT 360 (4) Introduction to Networking
This course covers basic concepts related to computer networking. Topics addressed will include the OSI model, the Internet model, network management, network protocols and data security.
Pre: a 3.0 or higher grade in IT 210 or in an approved substitute is required.
Fall, Spring

IT 380 (4) Systems Analysis and Design
This course explores both structured as well as object oriented systems analysis and design. Use of upper and lower CASE tools are employed in the analysis, design and implementation of a team oriented term project.
Pre: IT 214, IT 340
Fall, Spring

IT 390 (12) International Technology Experience
Study abroad for one semester to participate in a project-based technology/media-oriented program of study. The program of study must be one approved by the student’s advisor and the chair of this department.
Pre: Permission
Fall, Spring

IT 398 (0) CPT: Co-Operative Experience
Curricular Practical Training: Co-Operative Experience is a zero-credit full-time practical training experience for one summer and on adjacent fall or spring term. Special rules apply to preserve full-time student status. Please contact an advisor in your program for complete information.
Pre: IT 380. At least 60 credits earned; in good standing; instructor permission; co-op contract; other prerequisites may also apply.
Fall, Spring, Summer

IT 414 (4) Advanced Object-Oriented Programming with Design Patterns
This course provides students with a solid understanding of the principles, techniques and design patterns involved in advanced object-oriented programming. Successful students should have a distinct advantage in the marketplace.
Pre: IT 340, IT 310
Variable

IT 440 (4) Database Management Systems II
Extensive coverage of SQL, database programming, large scale data modeling, and database enhancement through reverse engineering. This course also covers theoretical concepts of query processing, and optimization, basic understanding of concurrency control and recovery, and database security and integrity in centralized/distributed environments. Team-oriented projects in a heterogeneous client server environment.
Pre: IT 380
Fall, Spring

IT 442 (4) Database Security, Auditing, and Disaster Recovery
Covers science and study of methods of protecting data, and designing disaster recovery strategy. Secure database design, data integrity, secure architectures, secure transaction processing, information flow controls, inference controls, and auditing. Security models for relational and object-oriented databases.
Pre: IT 350, IT 440
Variable

IT 444 (4) Data Mining and Warehousing
The course details data mining and warehousing. Emphasis is placed on data mining strategies, techniques and evaluation methods. Various data warehousing methods are covered. Students experiment with data mining and warehousing tools.
Pre: IT 440
Variable

IT 450 (4) Information Warfare
Covers information warfare principles and technologies. Information warfare concepts; Protocols, Authentication, and Encryption; Network attack techniques, methodologies, and tools; Network defense; Malware: trojans, worms, viruses, and malicious code; Electronic crimes and digital evidence.
Pre: IT 350
Fall

IT 460 (4) Network and Security Protocols
Advanced coverage of data communication, networking and security protocols. Topics: transmission methods, error detection and recovery, flow control, routing, security issues and performance analysis of existing and emerging protocols for secure communication.
Pre: IT 214, IT 360
Variable

IT 462 (4) Network, Security, Administration and Programming
Network and server systems administration. Domain administration; file system management; networked printers; user management; workstation configuration. Network programming assignments/projects in Layered Software Systems, HTTP Server, UDP (TFTP or DNS), CGI program, IPv6, RPC/SCCP.
Pre: IT 350, IT 460
Variable
IT 464 (4) Applications of Wireless and Mobile Networks
Existing and emerging mobile and wireless data networks with emphasis on digital data communications. Gain an understanding of the unique considerations that must be given to network protocols for wireless and mobile communication and their applications. Pre: IT 460 Variable

IT 465 (4) Mobile Device Application Programming
This course is designed to give students the skills required to write applications for mobile devices (smartphones and tablets). Topics to be covered include interacting with the UI, using an emulator/simulator, application lifecycle, moving from one screen to another, services, alarms, broadcast receivers, maps API, location based programs, gps, persistence, hardware sensors, and web applications. Pre: IT 214 Variable

IT 480 (4) Software Quality Assurance and Testing
Topics include software quality assurance, software quality metrics, software configuration management, software verification and validation, reviews, inspections, and software process improvement models, functional and structural testing models. Pre: IT 380 Fall, Spring

IT 482 (4) Human Computer Interaction
This course discusses concepts and techniques for design, development and evaluation of user interfaces. Students will learn the principles of interaction design, interaction styles, user-centered design, usability evaluation, input/output devices, design and analysis of controlled experiments and principles of perception and cognition used in building efficient and effective interfaces. Group project work. Pre: IT 380 or CS 230 and MATH 121 Fall

IT 483 (4) Web Applications and User Interface Design
HTTP Protocol; Web-markup languages; Client-side, Server-side programming; Web services; Web servers; Emerging technologies; Security; Standards & Bodies; Web interface design techniques; User-centered design; Visual development environments and development tools; Interface design effectiveness. Pre: IT 340, IT 380 Fall, Spring

IT 484 (4) Software Engineering
An introduction to all important aspects of software engineering. The emphasis is on principles of software engineering including project planning, requirements gathering, size and cost estimation, analysis, design, coding, testing, implementation, and maintenance. Group project work. Pre: IT 380 Fall, Spring

IT 495 (1) Seminar in Information Technology
Provides Information Technology majors an opportunity, in a small group setting, to explore a topic not normally covered in the curriculum. Pre: Consent Variable

IT 496 (1-4) Selected Topics in Information Technology
Special topics not covered in other courses. May be repeated for credit on each new topic. Pre: Consent Variable

IT 497 (1-12) Internship
Provides students with opportunity to utilize their training in a real-world business environment working under the guidance and direction of a faculty. (At most 4 hours toward a major in this department.) Pre: Permanent admission to IT and consent Fall, Spring, Summer

IT 498 (4) Information Technology Capstone
Develop high quality software application researching and applying fundamental software engineering techniques, several advanced development and test tools, human factors of interface design and a team approach, each student controlling only a part of the system. Pre: Senior Standing and consent Fall, Spring

IT 499 (1-4) Individual Study
Problems on an individual basis. Pre: Consent Fall, Spring

Computer Science

Computer Science

Department of Integrated Engineering
College of Science, Engineering & Technology
131 Trafant Science Center N • 507-389-2744
Websites: cset.mnsu.edu/ie and cset.mnsu.edu/cs

Program is closed. Please contact department for more information.

COURSE DESCRIPTIONS

CS 105 (3) Computer Science Foundations
This course provides fundamental conceptual, mathematical, and logical tools for students wishing to major in Computer Science. Topics include hardware concepts, number systems, computer arithmetic, counting, sets and functions, logic, simple induction, etc. Coreq: Math 112 Fall

CS 110 (4) Computer Science I
Students will learn programming skills in object-oriented C++. Students will design algorithms and learn how to write, compile, run and debug programs that include selection and repetition structures, functions, and arrays. Study skills and professional development will be addressed. Pre: MATH 112 (College Algebra) Fall, Spring

CS 111 (4) Computer Science II
Continues the exploration of introductory Computer Science begun in CS 110. Focus is on developing basic knowledge of algorithms, programming skills and problem solving techniques. Topics include recursion, sorting, linked lists, stacks and queues. Pre: CS 110 or EE 107. MATH 113 or MATH 115 or MATH 121 Fall, Spring

CS 171 (2) Introduction to C++ Programming
This course provides an introduction to programming using C++. Emphasis on structured programming concepts, with a brief discussion of object-oriented programming. Control structures, expressions, input/output, arrays and functions. Pre: MATH 113 or MATH 115 Fall, Spring

CS 201W (4) Artificial Intelligence & Science Fiction
Course will explore the interplay between science fiction (1950s-present) and the development of artificial intelligence. Turing tests, agents, sensors, problem solving, game playing, information retrieval, machine translation robotics, and ethical issues. Variable W1, GE-6, GE-9

CS 209W (2) C++ for Java Programmers
C++ syntax for students who already know Java. Specific topics: data types, operators, functions, arrays, string operations, pointers, structures, classes, constructors, destructors, pointers as class members, static classes, “this” pointer, operator functions, data type conversions, inheritance, polymorphism, and dynamic binding. Pre: Consent Variable
CS 210 (4) Data Structures
Investigates efficient data structuring techniques to support a variety of operations in different problem scenarios. Topics include binary trees, binary search trees, multiway search trees, hashing and hash tables, priority queues, and algorithm analysis for best, worst and average cases.
Pre: CS 111 and MATH 121
Fall, Spring

CS 220 (3) Machine Structures and Programming
This course introduces students to assembly language programming and basic machine structures. Topics include number systems; basic central processing unit (CPU) organization, instruction formats, addressing modes and their use with a variety of data structures; and parameter passing techniques.
Pre: CS 110 and EE 106
Fall, Spring

CS 221 (1) Machine Structures and Programming Lab
This laboratory course complements CS 220, offering students hands-on programming experience to reinforce assembly language programming concepts. Topics include number systems; instruction formats, addressing modes and their use; and parameter passing techniques including the use of a stack frame.
Coreq: CS 220
Fall, Spring

CS 230 (4) Introduction to Intelligent Systems
Fundamentals of data mining and knowledge discovery. Methods include decision tree algorithms, association rule generators, neural networks, and web-based mining. Rule-based systems and intelligent agents are introduced. Students learn how to apply data-mining tools to real-world problems.
Pre: CS 110
Fall

CS 271 (3) Introduction to Graphical Programming
An introduction to graphical programming environments. Topics include data and data types, repetition, selection, data acquisition, data dependency, efficiency, modular program construction, array processing, debugging, and visualization.
Pre: EET 113, MATH 121
Fall, Spring

CS 293 (1) MAX Scholar Seminar
This class provides MAX scholars with an opportunity to explore a set of topics related to achieving success in academic, professional and personal realms. Speakers will include faculty, graduate students, visiting researchers and industry members as well as student participants.
Pre: Recipient of a MAX scholarship or instructor consent
Fall, Spring

CS 294 (1-3) Workshop
Workshop topics will be announced. Workshops on different topics may be taken for credit.
Pre: Consent of instructor
Variable

CS 295 (1) Computer Science Seminar
Provides students interested in a computer science major or minor an opportunity to explore topics not normally covered in the curriculum. Speakers will include faculty, graduate students, undergraduate students admitted to the Computer Science major, visiting researchers and industry members.
Fall, Spring

CS 296 (1-2) Introduction to Selected Topics
Special topics not covered in other 100 or 200-level courses. May be repeated for each new topic.
Variable

CS 300 (4) Large-Scale Software Development
A team-based capstone experience for the mid-point of the CS program. Students are introduced to principles and methodologies of large-scale software development and engineering by working on a full life-cycle software project solving a substantial problem using multiple CS concepts.
Pre: CS 210 and CS 220
Spring

CS 305 (4) Algorithmic Structures
Study of the core algorithm design and analysis techniques of computer science and the data structures which support them with attention to the applicability to specific problem types and comparison metrics.
Pre: CS 111, MATH 121
Fall

CS 310 (3) Algorithm Analysis
Algorithm design and analysis is central to much of computer science. This course exposes students to fundamental algorithm design and analysis techniques. Topics include many of the basic topic areas of computer science: searching, sorting, numeric computation, data representation, communication.
Pre: CS 210
Fall

CS 315 (4) Introduction to Cryptographic Methods
An introduction to methods, algorithms, and tools of cryptography. We will study the algorithmic and mathematical aspects of cryptographic methods and protocols. We will experiment with how they can be used to solve particular data and communication security problems.
Pre: CS 305 or permission of instructor.
Variable

CS 320 (3) Computer Architecture
This course presents historical and current concepts and implementations of computer organization. Topics include instruction set design, digital storage, performance metrics, processor datapath and control, pipelining, memory hierarchy, busses and I/O interfacing, and parallel processors.
Pre: CS 111 and CS 220, or EE 334
Spring

CS 330 (4) Introduction to Neural Computation
This course provides an introduction to the theory and practice of neural computation. The goal is to familiarize students with the major models, techniques, and problems of neural network computation and to provide hands-on experience using these things. Topics include neural network models, supervised and unsupervised learning, associative memory models, and data representation.
Pre: CS 230
Coreq: Permission of the Instructor
Spring

CS 340 (3) Concepts of Database Management Systems
This course covers the fundamentals of database management focusing on the relational data model. Topics include database organization, file organization, query processing, concurrency control, recovery, data integrity, optimization and view implementation.
Pre: CS 210 and CS 320
Fall

CS 350 (3) Network Architectures
An introduction to data communications and networks. The field encompasses local area networks, wide area networks, and wireless communication. Topics include digital signals, transmission techniques, error detection and correction, OSI model, TCP/IP model, network topologies, network protocols, and communications hardware.
Pre: CS 305 or EE 234
Spring

CS 351 (1) Network Architectures Lab
A laboratory in conjunction with CS 350.
Pre: CS 305 or EE 234. Permission of instructor
Coreq: CS 350
Fall

CS 360 (3) Systems Programming
This course focuses on machine level I/O and operating system file processing. Structure of systems programs including assemblers, linkers, and object-oriented utilities and interfaces. Students will gain experience in writing utility programs and extensions to an operating system.
Pre: CS 111 or EE 107, and CS 320
Fall
CS 370 (3) Concepts of Programming Languages
Fundamental concepts of programming languages, including principles of language design, language constructs, and comparison of major languages. Topics: formal methods of examining syntax and semantics of languages and lexical analysis of language components and constructs, and propositional and predicate calculi.
Pre: CS 210
Fall

CS 380 (3) Analysis and Design of Software Systems
Students are introduced to techniques used in analysis and design of software systems. Traditional techniques are reviewed and current methodologies for both object-oriented and procedural systems are studied. Standard notations used to document software requirements and designs are presented.
Pre: CS 300
Spring

CS 400 (3) Software Design and Architecture
Current processes, methods and tools related to formal methods for modeling and designing software systems. Topics include software architectures, methodologies, model representations, component-based design, patterns, frameworks, CASE-based designs, and case studies.
Pre: CS 300 and MATH 121
Variable

CS 410 (3) Formal Languages/Abstract Machines
This course studies the theoretical underpinnings of modern computer science, focusing on three main models of computation: DFA, PDA, and Turing Machines. Students determine model capabilities and limitations: what is and is not computable by each of them.
Pre: CS 310 and MATH 375
Fall

CS 415 (3) High Performance Computing
High Performance Computing techniques used to address problems in computational science. Topics include application areas and basic concepts of parallel computing, hardware design of modern HPC platforms and parallel programming models, methods of measuring and characterizing serial and parallel performance.
Pre: CS 310, CS 350, and MATH 247
Variable

CS 420 (3) Advanced Computer Architecture
This course addresses advanced topics in computer architecture including a major emphasis on measuring and improving computer performance. Topics include advances in pipelining and analysis and optimization of storage systems and networks, multiprocessor challenges and trends.
Pre: CS 320 and MATH 375
Variable

CS 425 (3) Real-time and Embedded Systems
This course provides an overview of embedded and real-time systems including design principles, methodologies, design tools and problem solving techniques. Students design and build a real-time operation system with a microprocessor to host real-time service data processing using sensor/actuator devices.
Pre: CS 210 and CS 320
Variable

CS 427 (3) Mobile and Wireless Networks
This course introduces students to the design and implementation of mobile and wireless applications. Topics include standard wireless protocols (e.g., Bluetooth, IEEE 802.11, RFID, and WAP), and development of mobile and wireless applications (e.g., J2ME, WML, Brew). Includes research, design, and implementation of a wireless, mobile application.
Pre: CS 320 and CS 350
Variable

CS 430 (3) Artificial Intelligence
Basic introductory concepts and a history of the field of Artificial Intelligence (AI) are covered. Emphasis is placed on the knowledge representation and reasoning strategies used for AI problem solving. Solutions are found using the LISP programming language.
Pre: CS 230 or CS 305
Alt-Fall

CS 431 (3) Computational Linguistics
Computational linguistics topics covered include regular expressions, finite state automata, information theory, context free grammars, hidden Markov models and Viterbi algorithms. Students will work on problems within the field including parsing, machine translation, speech recognition, information extraction and parsing.
Pre: CS 210 or CS 230
Alt-Fall

CS 433 (3) Data Mining and Machine Learning
A blend of computer science, information science, and statistics for storing, accessing, modeling, and understanding large data sets. Topics include fundamental data mining algorithms: decision trees, classification, regression, association rules, statistical models, neural networks, and support vector machines.
Pre: CS 210 and STAT 354
Alt-Fall

CS 452 (3) Network Protocol Internals
As an advanced coverage of data communication, this course explores principles, protocols and performance evaluation techniques of advanced networking technologies. Topics include error detection and recovery, flow control, routing, data throughput, and performance analysis of existing and emerging Internet protocols.
Pre: CS 350 and STAT 354
Variable

CS 454 (3) Mobile and Wireless Networks
Emerging mobile and wireless data networks technologies covered include standard wireless protocols (e.g., Bluetooth, IEEE 802.11, RFID, and WAP), and development of mobile and wireless applications (e.g., J2ME, WML, Brew). Includes research, design, and implementation of a wireless, mobile application.
Pre: CS 320 and CS 350
Variable

CS 455 (4) Computational Geometry
This course studies the problems, methods, and algorithms of computational geometry. We will focus on the core problems and categories of the discipline: static problems, geometric query problems, and dynamic problems. Some additional attention will be given to numerical geometric problems (e.g., parametric surfaces).
Fall (Even), Spring (Odd Years)

CS 460 (3) Operating Systems: Design & Implementation
This course studies historical and current concepts and implementations of computer operating systems. Basic operating systems topics include processes, interprocess communication, interprocess synchronization, deadlock, memory allocation, segmentation, paging, resource allocation, scheduling, file systems, storage, devices, protection, security, and privacy.
Pre: CS 305 or EE 395
Spring

CS 461 (1) Operating Systems Lab
A laboratory in conjunction with CS 460.
Pre: CS 305, EE 395. Permission of instructor
Coreq: CS 460
Spring

CS 465 (3) Graphics and Game Programming II
The second of a two-course sequence on graphics and game programming. The course concentrates on 3D graphics including modeling, rendering, and animation for computer games and graphic simulations. Programs are created using a current graphics and game development environment.
Pre: CS 356, MATH 375
Variable
Construction Management

Construction Management prepares graduates for success in the rapidly-changing construction industry. Course work emphasizes management with an additional focus on technology and systems specific to the construction industry. Typical entry-level positions include field manager, assistant superintendent, project engineer, scheduler, assistant estimator, project cost controller and safety director.

Policies/Information

Admission to Major is granted by the College of Science, Engineering and Technology. Admission requirements are:
- A minimum of 32 earned semester credit hours
- Overall GPA of “C” 2.0
- Completion of CM 111 “C” (2.0)
- Completion of ENG 101, grade of “C” (2.0) or above
- Completion of MATH 112 & MATH 113 or MATH 115, grade of “C” (2.0) or above
- Completion of CM 297

Contact the CSET Advising Center for application procedures.

GPA Policy. A minimum grade of “C” (2.0) is required in all courses listed in the Construction Management BS Degree.

P/N Grading Policy. All courses in the major must be taken for letter grade except where P/N is the only option.
CONSTRUCTION MANAGEMENT CONTINUED

CONSTRUCTION MANAGEMENT BS
Degree completion = 120 credits

Required General Education
ECON 201 Principles of Macroeconomics (3)
ECON 202 Principles of Microeconomics (3)
ECON 207 Business Statistics (4)
ENG 101 Composition (4)
ENG 271W Technical Communication (4)
MATH 115 Precalculus Mathematics (4)
Analytical Science Courses
(choose 3-4 credits)
PHYS 101 Introductory Physics (3)
PHYS 211 Principles of Physics I (4)
(choose remaining credits - Choose 4-5 credits)
CHEM 201 General Chemistry I (5)
GEOL 100 Our Geologic Environment (3-4)

Major Common Core
ACCT 200 Financial Accounting (3)
ACCT 210 Managerial Accounting (3)
BLAW 200 Legal, Political, and Regulatory Environment of Business (3)
BLAW 476 Construction and Design Law (3)
CM 108 Construction Work Experience (1)
Pre: ENG 271W, CM 220
CM 111 Introduction to Construction Management (1)
Overview of academic preparation and career opportunities in the fields of
Construction Management. Skills needed for estimating, scheduling, project
management and field supervision will be previewed with an emphasis on future
trends in the industry.

CM 120 (3) Construction Graphics
Emphasis on plan reading, basic sketching and drawing techniques, graphic
vocabulary, detail hierarchies, scale, content, notes and specifications, reference
conventions, and computer applications.
Fall, Spring

CM 130 (2) Construction Documents
Basic understanding of the plans and specifications for construction projects.
Emphasis on interpretation of bidding and contractual documents, conditions
of the contract, plans/working drawings; and applications of existing and new
technology preparing students for the future.
Fall, Spring

CM 210 (3) Construction Materials and Methods I
Understand how construction affects professional industry and society, present
state of the profession and its future. Learn about the various materials used in
construction—the composition, properties, standard designations, sizes, gradations
and testing techniques. Understand changes in technology of building
construction materials.
Pre: CM 111, CM 120, CM 130, IT 101
Fall, Spring

CM 220 (3) Construction Materials and Methods II
Fundamentals of building construction and their applications in construction sys-
tems and utilities. Application of the principles of building science to construction
sites; relationship between technology and innovations in methods, sustainable
building practices and “green” building requirements.
Pre: CM 210
Fall, Spring

CM 222 (3) Introduction to Statics and Mechanics of Materials
Course introduces the design theory and applied principles of force equilibrium,
stress and strain, shear, bending moments, force diagrams, deformations of beams,
and stress/strain analysis.
Pre: PHYS 101, MATH 113 or MATH 115 or MATH 121
Fall, Spring

CM 271 (2) Civil Engineering Measurements
Basic civil engineering measurements as relates to construction layout, including
distances, angles, bearings, elevations, mapping and positioning.
Pre: MATH 113 or MATH 115 or MATH 121
Fall, Spring

CM 297 (1) Construction Professional Practice
Principles of professional conduct, ethical codes and best practices are applied to
the development of a portfolio and presentation. Students will sit for interviews,
set career goals, and begin building a professional network.
Pre: CM 108, CM 210
Fall, Spring

CM 300 (3) Construction Safety
Principles and practices of construction safety, health, and loss control. Empha-
sis is on hazard recognition, control procedures and management systems for
measuring and evaluating loss control performance in the construction industry.
Pre: CM 210
Fall, Spring

CM 310 (3) Estimating I
This course covers types of estimates and their uses, the basics of quantity take-
of, labor and equipment productivity and basic computer applications.
Pre: MATH 113 or MATH 115 or MATH 121

CM 330 (3) Planning and Scheduling
Understanding project planning, scheduling and control models with emphasis
on the critical path methods. Introductions to the techniques used in the industry
utilizing commercial software on personal computers, highlighting the importance
of analysis of schedules; considering and understanding schedule alternatives
will be stressed.
Pre: ENG 271W, CM 220
Fall, Spring

CM 380 (3) Construction Equipment Management
Pre: MA TH 113 or MA TH 115 or MA TH 121
This course covers types of estimates and their uses, the basics of quantity take-
of, labor and equipment productivity and basic computer applications.
Pre: MATH 113 or MATH 115 or MATH 121

CM 350 (3) Mechanical and Electrical Systems for Construction
Pre: CM 210

CM 397 (1-12) Construction Professional Practice
Principles of professional conduct, ethical codes and best practices are applied to
the development of a portfolio and presentation. Students will sit for interviews,
set career goals, and begin building a professional network.
Pre: CM 108, CM 210
Fall, Spring

CM 492 (3) Construction Management Seminar
Principles and practices of construction safety, health, and loss control. Empha-
sis is on hazard recognition, control procedures and management systems for
measuring and evaluating loss control performance in the construction industry.
Pre: CM 210
Fall, Spring

CM 497 (1-12) Civil Engineering Measurements
Basic civil engineering measurements as relates to construction layout, including
distances, angles, bearings, elevations, mapping and positioning.
Pre: MATH 113 or MATH 115 or MATH 121
Fall, Spring

CM 500 (3) Construction Safety
Principles and practices of construction safety, health, and loss control. Empha-
sis is on hazard recognition, control procedures and management systems for
measuring and evaluating loss control performance in the construction industry.
Pre: CM 210
Fall, Spring

CM 510 (3) Estimating I
This course covers types of estimates and their uses, the basics of quantity take-
of, labor and equipment productivity and basic computer applications.
Pre: MATH 113 or MATH 115 or MATH 121

CM 530 (3) Planning and Scheduling
Understanding project planning, scheduling and control models with emphasis
on the critical path methods. Introductions to the techniques used in the industry
utilizing commercial software on personal computers, highlighting the importance
of analysis of schedules; considering and understanding schedule alternatives
will be stressed.
Pre: ENG 271W, CM 220
Fall, Spring

CM 580 (3) Construction Equipment Management
Pre: MA TH 113 or MA TH 115 or MA TH 121

CM 600 (3) Construction Safety
Principles and practices of construction safety, health, and loss control. Empha-
sis is on hazard recognition, control procedures and management systems for
measuring and evaluating loss control performance in the construction industry.
Pre: CM 210
Fall, Spring

CM 610 (3) Estimating I
This course covers types of estimates and their uses, the basics of quantity take-
of, labor and equipment productivity and basic computer applications.
Pre: MATH 113 or MATH 115 or MATH 121

CM 630 (3) Planning and Scheduling
Understanding project planning, scheduling and control models with emphasis
on the critical path methods. Introductions to the techniques used in the industry
utilizing commercial software on personal computers, highlighting the importance
of analysis of schedules; considering and understanding schedule alternatives
will be stressed.
Pre: ENG 271W, CM 220
Fall, Spring

CM 650 (3) Mechanical and Electrical Systems for Construction
Pre: CM 210

CM 697 (1-12) Construction Professional Practice
Principles of professional conduct, ethical codes and best practices are applied to
the development of a portfolio and presentation. Students will sit for interviews,
set career goals, and begin building a professional network.
Pre: CM 108, CM 210
Fall, Spring
CM 340 (3) Construction Project Management
This course examines the project management framework, including key terminology, project management context, and project management processes. Topics include project management knowledge areas, life cycles, and organizational designs. Different project delivery methods will be discussed and the roles of project stakeholders will be identified and analyzed. Pre: CM 220, CM 222, CM 297
Fall, Spring

CM 350 (3) Mechanical and Electrical Systems for Construction
Design concepts of plumbing, HVAC, and electrical and control systems are analyzed for attributes that affect the design and construction processes and the performance of completed structures. Pre: CM 220
Fall, Spring

CM 380 (3) Construction Equipment Management
This course provides understanding of the different building and civil construction equipment’s functions; analysis of equipment costs, production, methods of equipment selection and safety requirements including heavy equipment. Reading and understanding highway construction plans. Pre: CM 220, CM 300
Fall, Spring, Summer

CM 398 (0) CPT: Co-Operative Experience
Curricular Practical Training: The Co-Operative Experience is a zero-credit, full-time practical training experience. Please contact an advisor in the Construction Management program for details. Fal, Spring, Summer

CM 410 (3) Estimating II
This course covers types of estimates and their uses, pricing and price databases, labor and equipment productivity, proposal presentations, computer applications in estimating and research in sustainable construction. Pre: CM 310, CM 330
Fall, Spring

CM 450 (3) Construction Capstone Project
The course will involve the students in a Capstone Project in teams representing a construction company. This is a project where students will integrate the coursework concept of the core program through research, application and presentation. Pre: CM 340, CM 410
Fall, Spring

CM 492 (3) Construction Management Seminar
A seminar course that involves a critical evaluation of an area in the construction management discipline and/or industry. Topics vary from year to year. Students are usually required to make a presentation to the class. Pre: Senior Standing or instructor permission
Fall, Spring

CM 497 (1-12) Internship
Pre: CM 300, CM 310, CM 330

CM 499 (1-4) Individual Study
An in-depth study on a topic of particular interest to the student. Project must be approved by project supervisor and department chairperson.

Corporate & Community Fitness/Wellness

Corporate & Community
Fitness/Wellness

GPA Policy. Maintain an overall minimum GPA of 2.00.
P/N Grading Policy. Courses required must be taken for a grade, except for the Internship (HP 492) which is graded P/N.

CORPORATE & COMMUNITY FITNESS MINOR

Minor Core
BIOL 220 Human Anatomy (4)
BIOL 330 Principles of Human Physiology (4)
HLTH 210 First Aid and CPR (3)
HP 175 Fitness Activity (1)
HP 348 Structural Kinesiology and Biomechanics (3)
HP 414 Physiology of Exercise (3)
HP 439 Nutrition for Physical Activity and Sports (3)
HP 465 Legal Aspects of Physical Education and Sport (3)
HP 466 Graded Exercise Testing and Exercise Prescription (3)

Corrections

The Corrections major is designed to prepare students for entry level professional work in corrections. The major is built upon a foundation of general education, sociological and criminological concepts, and a commitment to understanding and transforming correctional practice. The major achieves its objectives through the melding of academic learning with experiential education. This program is further expected to promote, within corrections and to the community at large, a commitment to the principles of social justice, respect, tolerance, dignity and worth of all persons.

Policies/Information

Admission to Major. Students enrolling in 300-400 level courses must be admitted to the program. Admission is granted by the Department. Minimum university admission requirements are:
- a minimum of 32 earned semester credit hours.
- a minimum cumulative GPA of 2.00.
CORRECTIONS CONTINUED

Residency Requirements
Excluding CORR 106 and SOC 101, all majors must complete 42 of the required 48 credits within the Department of Sociology and Corrections at Minnesota State Mankato. Transfer courses that will not be accepted are Field Practice, Capstone and Experiential courses such as CORR 200, CORR 350, CORR 355 CORR 485 and CORR 449.

Normally the department will not accept transfer courses at the 200-level for our upper level courses, except on a case-by-case basis.

Excluding CORR 106, all students minorin in corrections must complete 12 of the required 18 credit hours within the Department of Sociology and Corrections at Minnesota State Mankato.

GPA Policy: A minimum grade of “C” is required for all courses counting towards the Corrections major.

CORRECTIONS BS
Degree completion = 120 credits

Required General Education
CORR 106 Introduction to Criminal Justice Systems (3)
SOC 101 Introduction to Sociology (3)

Major Common Core
CORR 200 Foundations and Orientation to Corrections (3)
CORR 255 Juvenile Delinquency (3)
CORR 442 Criminology (3)
CORR 443 Penology (3)
CORR 447 Community Corrections (3) OR
CORR 447W Community Corrections (3)
CORR 448 Correctional Law (3)
CORR 449 Correctional Counseling (3)
CORR 496 Field Practice: Corrections (10)
CORR 497 Capstone Seminar (2)

Major Restricted Electives
(choose two courses (6 credits) from the following)
CORR 355 JOLT: Joint Opportunity to Learn and Thrive, Part II (3)
CORR 441 Social Deviance (3)
CORR 451 Law and Justice in Society (3)
CORR 452 Victimology (3)
CORR 453 Treatment Methods in Corrections (3)
CORR 459 Issues in Corrections (3)
CORR 465 Law and Chemical Dependency (3)
SOC 409 Family Violence (3)

Social and Behavioral (choose one course (3 credits) from the following)
GERO 200 Aging: Interdisciplinary Perspectives (3)
NPL 273 Introduction to the Nonprofit Sector (3)
SOC 351 Social Psychology (3)

Methods of Research (choose one course (3 credits) from the following)
SOC 201 Social Research I (3)
SOC 469 Survey Research (3)
SOC 479 Sociological Ethnography (3)
SOC 480 Qualitative Methods (3)

Inequality, Race, Gender and Ethnicity
(choose one course (3 credits) from the following)
CORR 444 Women in the Criminal Justice System (3)
SOC 446 Race, Culture and Ethnicity (3)
SOC 463 Social Stratification (3)

Required Minor. Yes. Any.

CORRECTIONS MINOR

Required for Minor
CORR 106 Introduction to Criminal Justice Systems (3)
(choose at least two courses from the following)
CORR 255 Juvenile Delinquency (3)
CORR 441 Social Deviance (3)
CORR 442 Criminology (3)

Required Electives for Minor (12 credits)
CORR 300-400 Level

COURSE DESCRIPTIONS

CORR 106 (3) Introduction to Criminal Justice Systems
Examines the making of criminal law, the evolution of policing, the adjudication of persons accused of criminal law violations, and the punishment of adult offenders.
Fall, Spring
GE-5, GE-9
Diverse Cultures - Purple

CORR 200 (3) Foundations and Orientation to Corrections
Introduction to academic concepts and issues in corrections, with emphasis on student professional development. The course includes a 50-hour service learning component to be completed outside of class. Corrections majors should take this course as early as possible
Pre: CORR 106 and SOC 101
Fall, Spring

CORR 255 (3) Juvenile Delinquency
A critical consideration of definitions of juvenile delinquency, emphasis on micro and macro level of struggle in which delinquent behavior takes place, critique of current theories on delinquency, and the juvenile justice response to delinquency.
Fall, Spring
GE-5, GE-9

CORR 291 (4) Exploratory Studies
May be used to explore areas of interest not covered in regular courses. A maximum of three hours applicable toward a major or minor in the department with consent of an advisor.
Pre: Consent
Fall, Spring

CORR 300-400 Level

CORR 300 (3) JOLT: Joint Opportunities to Learn and Thrive
JOLT is a collaborative effort between the University and several probation offices. Students will mentor delinquents in the community and be mentored by local probation officers. This is a year-long commitment.
Pre: CORR 300
Fall

CORR 305 (3) JOLT: Joint Opportunity to Learn and Thrive, Part II
JOLT-II is a second semester continuation of CORR 350. Can only enroll after completing CORR 350.
Pre: CORR 350
Spring

CORR 398 (0) CPT: Co-Operative Experience
Curricular Practical Training: Co-Operative Experience is a zero-credit full-time practical training experience for one summer and on adjacent fall or spring term. Special rules apply to preserve full-time student status. Please contact an advisor in your program for complete information.
Pre: At least 60 credits earned; in good standing; instructor permission; co-op contract; other prerequisites may also apply.
Fall, Spring, Summer

CORR 417 (3) Program Administration
Implications of Sociological Knowledge for the administration of Human Services programs. Theoretical and practical aspects of administration with the Social Service systems.
Pre: SOC 101
Spring
CORR 441 (3) Social Deviance
Sociological perspective on social deviance; overview of theoretical approaches; emphasis on symbolic interactionism; issues of social control; research examples and policy implications.
Pre: SOC 101
Fall, Spring

CORR 442 (3) Criminology
A critical consideration of myths concerning crime, perspectives on crime and their assumptions, current criminology theory, and construction of alternative explanations related to crime.
Pre: SOC 101
Fall, Spring

CORR 443 (3) Penology
Addresses the justifications and the historical development of punishment, the legal and policy issues concerning capital punishment, and the use of incarceration as a response to crime.
Pre: CORR 106 and CORR 200
Fall, Spring

CORR 444 (3) Women in the Criminal Justice System
This course focuses on the experiences of women in the criminal justice system—as victims, offenders, and professionals. Women’s involvement in this system (whether they were a defendant, an attorney, an inmate, a correctional officer or a crime victim) has often been overlooked or devalued. The goal of this course is to bring the special needs and contributions of women in the criminal justice system into sharper focus.
Fall
Diverse Cultures - Purple

CORR 447 (3) Community Corrections
Addresses theoretical roots, historical developments, and current practices of probation, parole, and other community corrections programs. Special attention is given to innovative, future approaches to community corrections.
Pre: SOC 101 and CORR 106
Fall, Spring

CORR 447W (3) Community Corrections
Addresses theoretical roots, historical developments, and current practices of probation, parole, and other community corrections programs. Special attention is given to innovative, future approaches to community corrections.
Pre: SOC 101 and CORR 106
Fall, Spring

CORR 448 (3) Correctional Law
Examines the rights of inmates, probationers, and parolees.
Pre: CORR 106 and CORR 200
Fall, Spring

CORR 449 (3) Correctional Counseling
Principles and methods of individual and group counseling with juvenile and adult offenders; development of interpersonal helping skills, negotiation, and mediation skills.
Fall, Spring

CORR 451 (3) Law and Justice in Society
A critical look at the construction of the concepts of law and justice as it operates in the United States and an application of the principles of justice to community issues.
Pre: SOC 101 and CORR 106
Variable

CORR 452 (3) Victimology
Overview of characteristics of victims, victim offender relationships, societal victimization, victim’s rights and services, and restorative justice.
Pre: SOC 101 and CORR 106
Fall

CORR 453 (3) Treatment Methods in Corrections
Examination of major correctional treatment models, e.g., individual and group counseling approaches, behavior modifications, reality therapy and transactional analysis. Considerations in planning, implementation and evaluating juvenile and adult treatment programs. Critical evaluation of research on the effectiveness of various treatment methods.
Spring

CORR 459 (3) Issues in Corrections
A critical examination of current issues in the correctional field.
Spring

CORR 465 (3) Law & Chemical Dependency
Addresses aspects of criminal and civil law pertinent to substance abuse.
Fall

CORR 471 (3) New Directions in Correctional Policy: Transforming Practice
A comprehensive historical and cross-cultural study of social policy analysis, the transforming role correctional policy formation plays in correctional practice, and the process of policy change and the mechanisms leaders can employ to encourage effective and ethical social policy.
Summer

CORR 485 (2-6) Selected Topics
Topics vary as announced in class schedule. May be retaken for credit if topic varies.
Pre: SOC 101
Variable

CORR 491 (1-6) In-Service
Topics vary as arranged by students and instructor. May be retaken for credit.
Variable

CORR 492 (1) Honors Reading
For Honors students only.
Variable

CORR 496 (10) Field Practicum: Corrections
Full time experience in a corrections agency with an emphasis on the development of skills. For Corrections majors only. Required for major. Formal application required.
Pre: Consent
Fall, Spring

CORR 497 (2) Capstone Seminar
Capstone is an evaluative course which allows students to document their learning and provide an assessment of their personal learning and the effectiveness of the Corrections Program. To be taken concurrently with CORR 496.
Pre: Completion of all other required CORR courses.
Fall, Spring

CORR 498 (1-12) Internship: Corrections
The internship in Corrections is designed to provide opportunities to apply classroom learning, to practice and enhance skills, to experience professional socialization, and to explore a career. It also serves as a vehicle for the student to become more aware of personal strengths and to identify areas in which further growth is needed.
Pre: Consent
Fall, Spring

CORR 499 (1-6) Individual Study
A maximum of six credits is applicable toward a single major in the department; three credits toward a minor.
Pre: Consent
Counseling and Student Personnel

College of Education

Department of Counseling and Student Personnel

107 Armstrong Hall • 507-389-2423
Fax: 507-389-5074
Website: www.coled.mnsu.edu/departments/csp

Chair: Dr. Jacqueline Lewis

The mission of Department of Counseling and Student Personnel (CSP) is to prepare professional practitioners at the graduate level who will serve in a variety of helping settings including elementary and secondary schools, colleges and universities, mental health and other community agencies, business and industry, and marriage and family counseling settings. In addition to the preparation of graduate students in the helping professions, the Department of Counseling and Student Personnel offers courses and other experiences designed to assist the undergraduate student in development of critical thinking skills, decision-making skills, and interpersonal helping skills. Please contact the department chair or visit the website for more information.

COURSE DESCRIPTIONS

CSP 110 (3) Decision Making for Career and Life
The purpose of this course is to help students develop critical thinking, problem solving and decision making skills necessary to manage the challenges they face now (choice of major) and in the future (career choice and balancing work and life roles). Meets General Education requirements for critical thinking.
Fall, Spring
GE-2

DANCE

Dance

College of Arts & Humanities

Department of Theatre and Dance

201 Earley Center for Performing Arts • 507-389-2118
Fax: 507-389-2922
Website: www.msudance.com

Director: Julie Kerr-Berry, Ed.D.

The Minnesota State Mankato Dance Program offers students degree options that are grounded in the liberal arts tradition. Students learn about the depth and breadth of dance as they practice their art form in multiple arenas. The curriculum is designed to balance students’ artistic experiences with practical applications in order to better prepare them to enter the dance world upon graduation. Students receive a comprehensive education that readies them for a lifetime in dance, including: teaching, performing, bodywork, choreographing, dance therapy, writing, dance technology, and dance production. Through an audition and adjudication process, students have many opportunities to present their choreographic work and/or perform in four concerts each year. Students can also audition to perform in musical theatre productions. Whatever their chosen path in dance, students emerge from the Minnesota State Mankato Dance Program with multiple skills, and the ability to think critically and act globally as emerging dance artists.

POLICIES/INFORMATION

GPA Policy. A grade of “C” or better must be earned for major or minor credit.
P/N Grading Policy. Required courses must be taken for a grade.
Theatre Practicum
(choose 1 credit)
THEA 301 Practicum: Directing (1-2)
THEA 302 Practicum: Acting (1-2)
THEA 303 Practicum: Theatre Management (1-2)
THEA 304 Practicum: Scene Design (1-2)
THEA 305 Practicum: Tech Theatre (1-2)
THEA 306 Practicum: Costume Design (1-2)
THEA 307 Practicum: Costume Construction (1-2)
THEA 308 Practicum: Light Design (1-2)
THEA 309 Practicum: Sound (1-2)
(choose 6 credits) (Take DANC 428 six times)
DANC 428 Dance Repertory (1)

Major Restricted Electives
You must choose 10 credits from the following (courses may be repeated)
DANC 128 Beginning Modern Dance (2)
DANC 228 Intermediate Modern Dance (2)
DANC 328 Advanced Modern Dance (2)
You must choose 14 credits from the following (courses may be repeated)
DANC 126 Beginning Ballet (2)
DANC 226 Intermediate Ballet (2)
DANC 326 Advanced Ballet (2)

Major Unrestricted Electives (choose 4 credits)
DANC 125 Afro-Caribbean Dance Forms (2)
DANC 223 Intermediate Jazz Dance (2)
DANC 227 Intermediate Tap Dance (2)
DANC 320 Dance Somatics (2)
DANC 323 Advanced Jazz Dance (2)
DANC 324 Methods and Materials for Teaching Dance (3)
DANC 327 Advanced Tap Dance (2)

DANCE BA
Degree completion = 120 credits

Required General Education
DANC 120 Introduction to Dance (3)
DANC 225 Worlds of Dance (3)
THEA 101 Acting for Everyone (3)
(choose 3 credits)
ART 160 Introduction to Visual Culture (3)
ART 261 Art History Survey II (3)

Major Common Core
DANC 128 Beginning Modern Dance (2)
DANC 226 Intermediate Ballet (2)
DANC 228 Intermediate Modern Dance (2)
DANC 320 Dance Somatics (2)
DANC 421 Dance Composition II (2)
DANC 427 Topics of Dance (3)
THEA 262 Dance Production: Costumes (1)
THEA 272 Dance Production: Lighting (1)
THEA 276 Dance Production: Sound (1)
(choose 3 credits) Take 3 times
DANC 428 Dance Repertory (1) (3 times)

Major Restricted Electives
(choose 3 credits from 2 areas listed below)
THEA 102 Theatre Activity: Acting (1-2)
THEA 103 Theatre Activity: Management (1-2)
THEA 105 Theatre Activity: Stagecraft (1-2)
THEA 107 Theatre Activity: Costume (1-2)
THEA 108 Theatre Activity: Lighting (1-2)
THEA 109 Theatre Activity: Sound (1-2)

Major Unrestricted Electives
(choose 14 credits of Dance not from Common Core)

Other Graduation Requirements
Required for Bachelor of Arts (BA) degree ONLY: Language (8 credits)
Required Minor: Yes. Any.

DANCE BS
Degree completion = 120 credits

Required General Education
DANC 120 Introduction to Dance (3)
DANC 225 Worlds of Dance (3)
THEA 101 Acting for Everyone (3)
(choose 3 credits)
ART 160 Introduction to Visual Culture (3)
ART 261 Art History Survey II (3)

Major Common Core
DANC 128 Beginning Modern Dance (2)
DANC 226 Intermediate Ballet (2)
DANC 228 Intermediate Modern Dance (2)
DANC 320 Dance Somatics (2)
DANC 421 Dance Composition II (2)
DANC 427 Topics of Dance (3)
THEA 262 Dance Production: Costumes (1)
THEA 272 Dance Production: Lighting (1)
THEA 276 Dance Production: Sound (1)
(choose 3 credits) Take 3 times
DANC 428 Dance Repertory (1) (3 times)

Major Restricted Electives
(choose 3 credits from 2 areas)
THEA 102 Theatre Activity: Acting (1-2)
THEA 103 Theatre Activity: Management (1-2)
THEA 105 Theatre Activity: Stagecraft (1-2)
THEA 107 Theatre Activity: Costume (1-2)
THEA 108 Theatre Activity: Lighting (1-2)
THEA 109 Theatre Activity: Sound (1-2)

Major Unrestricted Electives
(choose 14 credits in Dance not in Common Core)

Major Emphasis: Dance Generalist
Required Minor: Yes. Any. (must be at least 18 credits)

Major Emphasis: Private Studio Teaching
Required Minor: Yes.

K-12 DANCE EDUCATION BS
Degree completion = 120 credits

Required General Education
DANC 120 Introduction to Dance (3)
DANC 225 Worlds of Dance (3)
HLTH 240 Drug Education (3)
THEA 101 Acting for Everyone (3)

Major Emphasis: Dance Therapy (Pre-Professional)
Required Minor: Yes. Must complete a Psychology Minor (18 credits)

Major Emphasis: Dance Therapy (Pre-Professional)
Required Minor: Yes. Must complete a Psychology Minor (18 credits)

K-12 DANCE EDUCATION BS
Degree completion = 120 credits

Required General Education
DANC 120 Introduction to Dance (3)
DANC 225 Worlds of Dance (3)
HLTH 240 Drug Education (3)
HP 178 Social, Folk and Square Dance Techniques (1)
THEA 101 Acting for Everyone (3)
DANCE MINOR

Minor Core
DANC 120  Introduction to Dance (3)
DANC 125  Afro-Caribbean Dance Forms (2)
DANC 223  Intermediate Jazz Dance (2)
DANC 225  Worlds of Dance (3)
DANC 226  Intermediate Ballet (2)
DANC 227  Intermediate Tap Dance (2)
DANC 228  Intermediate Modern Dance (2)
DANC 322  Dance Improvisation (2)
THEA 101  Acting for Everyone (3)

Minor Electives
Must take 2 credits of the following:
DANC 123  Beginning Jazz Dance (2)
DANC 126  Beginning Ballet (2)
DANC 127  Beginning Tap Dance (2)
DANC 128  Beginning Modern Dance (2)
DANC 323  Advanced Jazz Dance (2)
DANC 326  Advanced Ballet (2)
DANC 327  Advanced Tap Dance (2)
DANC 328  Advanced Modern Dance (2)

DANCE CONTINUED

(choose 3 credits)
ART 160  Introduction to Visual Culture (3)
ART 261  Art History Survey II (3)

Major Common Core
DANC 223  Intermediate Jazz Dance (2)
DANC 226  Intermediate Ballet (2)
DANC 227  Intermediate Tap Dance (2)
DANC 228  Intermediate Modern Dance (2)
DANC 321  Dance Composition I (2)
DANC 322  Dance Improvisation (2)
DANC 324  Methods and Materials for Teaching Dance (3)
DANC 328  Advanced Modern Dance (2)
DANC 421  Dance Composition II (2)
DANC 424  Dance Pedagogy (3)
DANC 427  Topics in Dance (3)
DANC 484  Dance History (3)
THEA 262  Dance Production: Costumes (1)
THEA 272  Dance Production: Lighting (1)
THEA 276  Dance Production: Sound (1)
(choose 3 credits) (Min 2 different areas)
THEA 102  Theatre Activity: Acting (1-2)
THEA 103  Theatre Activity: Management (1-2)
THEA 105  Theatre Activity: Stagecraft (1-2)
THEA 107  Theatre Activity: Costume (1-2)
THEA 108  Theatre Activity: Lighting (1-2)
THEA 109  Theatre Activity: Sound (1-2)
(choose 2 credits) (Take twice)
DANC 428  Dance Repertory (1)

Major Unrestricted Electives (choose 8 credits)
DANC 123  Beginning Jazz Dance (2)
DANC 125  Afro-Caribbean Dance Forms (2)
DANC 126  Beginning Ballet (2)
DANC 127  Beginning Tap Dance (2)
DANC 128  Beginning Modern Dance (2)
DANC 320  Dance Somatics (2)
DANC 323  Advanced Jazz Dance (2)
DANC 326  Advanced Ballet (2)
DANC 327  Advanced Tap Dance (2)

Other Graduation Requirements - KSP Professional Education
KSP 201  Media Utilization (2)
KSP 210  Creating and Managing Successful Learning Environments (2)
KSP 220W  Human Relations in a Multicultural Society (3)
KSP 310  Development & Learning in the Inclusive Classroom (3-5)
KSP 410  Philosophy and Practices in the Middle and High School (3)
KSP 420  Planning, Instruction and Evaluation in the Sec. School (3)
KSP 475  The Social Context of Learning (1)
KSP 476  K-12 Student Teaching (11)

DANCE 120 (3) Introduction to Dance
A survey of dance in all its vibrant forms intended to develop student understanding and appreciation for the significant role dance plays in world cultures.
Spring
GE-6, GE-8

DANCE 120W (3) Introduction to Dance
A survey of dance in all its vibrant forms intended to develop student understanding and appreciation for the significant role dance plays in world cultures.
Spring
WI, GE-6, GE-8

DANCE 123 (2) Beginning Jazz Dance
Fundamentals of jazz technique, including knowledge and application of terminology. May be repeated.
Spring
GE-11

DANCE 125 (2) Afro-Caribbean Dance Forms
ALT-Fall
GE-11

DANCE 126 (2) Beginning Ballet
Fundamentals of ballet technique, including knowledge and application of terminology. May be repeated.
Fall
GE-11

DANCE 127 (2) Beginning Tap Dance
Fundamentals of tap dance technique utilized in musical theatre. May be repeated.
Fall
GE-11

DANCE 128 (2) Beginning Modern Dance
Fundamentals of modern dance technique, including an improvisatory component. May be repeated.
Fall, ALT-Spring
GE-11

DANCE 129 (1-2) Dance Activities
Performing in a mainstage dance production. May be repeated.
Pre: Consent
Fall, Spring

DANCE 223 (2) Intermediate Jazz Dance
Expanding knowledge and skill of jazz dance technique with more direct application to musical theatre and concert dance, as well as focus on emerging performance skills. May be repeated.
Pre: DANCE 123 or consent
Fall, ALT-Spring
GE-11

DANCE 225 (3) Worlds of Dance
Cross-cultural survey of dance from around the world with emphasis on historical, social, and cultural dimensions. Includes Western concert dance as one among many other forms.
Pre: DANCE 125, DANCE 126 or DANCE 128
ALT-Spring
GE-8, GE-11
Diverse Cultures - Purple
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
<th>Prerequisites</th>
<th>Offered</th>
<th>GE/Course</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>DANC 226</td>
<td>(2) Intermediate Ballet</td>
<td>Expanding knowledge and skill of ballet technique with increasing development of center-floor and across-the-floor variations, as well as emerging performance skills. May be repeated.</td>
<td>Pre: DANC 126 or consent Fall, Spring</td>
<td>GE-11</td>
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<tr>
<td>DANC 227</td>
<td>(2) Intermediate Tap Dance</td>
<td>Expanding knowledge and skill of tap technique in musical theatre, as well as focus on emerging performance skills. May be repeated.</td>
<td>Pre: DANC 127 or consent ALT-Spring</td>
<td>GE-11</td>
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</tr>
<tr>
<td>DANC 228</td>
<td>(2) Intermediate Modern Dance</td>
<td>Expanding knowledge and skill of modern dance technique including floor work, elevations, inversions, and emerging performance skills. May be repeated.</td>
<td>Pre: DANC 128 or consent Fall, Spring</td>
<td>GE-11</td>
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</tr>
<tr>
<td>DANC 229</td>
<td>(1) Kinetic Learning in the Classroom</td>
<td>Acquiring a fundamental understanding of dance/movement elements and skills, and applying these concepts to the pre-school through elementary school curriculum.</td>
<td>Pre: Consent</td>
<td>Fall, Spring</td>
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<tr>
<td>DANC 295</td>
<td>(1-4) Touring Dance</td>
<td>This course is designed for dance students to perform as part of a touring dance production. May be repeated.</td>
<td>Pre: Consent</td>
<td>Fall, Spring</td>
<td>GE-11</td>
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<tr>
<td>DANC 320</td>
<td>(2) Dance Somatics</td>
<td>Study and practice of specific techniques to improve dancers’ performance, health, and teaching.</td>
<td>Pre: DANC 126, DANC 128 or consent</td>
<td>Spring</td>
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<tr>
<td>DANC 321</td>
<td>(2) Dance Composition I</td>
<td>The study of dance making, dance accompaniment, and dance criticism through the creation of dance works.</td>
<td>Pre: DANC 128, DANC 228, DANC 322</td>
<td>ALT-Fall, ALT-Spring</td>
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<tr>
<td>DANC 322</td>
<td>(2) Dance Improvisation</td>
<td>Exploration of a variety of improvisational techniques for beginning Dance Majors and Minors. May be repeated.</td>
<td>Pre: DANC 128</td>
<td>ALT-Fall, ALT-Spring</td>
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<tr>
<td>DANC 323</td>
<td>(2) Advanced Jazz Dance</td>
<td>Increasing difficulty of jazz dance technique though complexity of combinations, multiple turns, and more developed performance skills as applied to musical theatre or concert dance. May be repeated.</td>
<td>Pre: DANC 223 or consent ALT-Spring</td>
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<tr>
<td>DANC 324</td>
<td>(3) Methods and Materials for Teaching Dance</td>
<td>This course is first in a two- part series of courses required for the K-12 Dance Education license. It examines the theory and practice of dance education and applies this knowledge to simulated teaching and to selected clinical settings.</td>
<td>Pre: DANC 226, DANC 228, DANC 321, DANC 322</td>
<td>Fall</td>
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<tr>
<td>DANC 325</td>
<td>(2) Movement Analysis: Laban Studies</td>
<td>Study of Laban-based systems and principles including Labanotation, Effort-Shape, and Space Harmony.</td>
<td>Pre: DANC 226, DANC 228 On-Demand</td>
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<tr>
<td>DANC 326</td>
<td>(2) Advanced Ballet</td>
<td>Increasing difficulty of ballet technique with more complex combinations, multiple turns, point work, and greater emphasis on performance skills. May be repeated.</td>
<td>Pre: DANC 226 or consent ALT-Spring</td>
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<tr>
<td>DANC 327</td>
<td>(2) Advanced Tap Dance</td>
<td>Increasing complexity of tap technique for musical theatre with greater emphasis on performance skills. May be repeated.</td>
<td>Pre: DANC 126, DANC 223 ALT-Spring</td>
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<tr>
<td>DANC 328</td>
<td>(2) Advanced Modern Dance</td>
<td>Increasing complexity of modern dance technique including floor work, partnering, elevation, inversions, and performance skills. May be repeated.</td>
<td>Pre: DANC 228 or consent Fall, Spring</td>
<td>GE-11</td>
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<tr>
<td>DANC 329</td>
<td>(1) Dance Practicum</td>
<td>Individualized teaching, performance, or choreographic experiences occurring on, or off-campus. May be repeated.</td>
<td>Pre: Consent</td>
<td>Fall, Spring</td>
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<tr>
<td>DANC 332</td>
<td>(1) Dance Partnering</td>
<td>Expanding knowledge and skill in dance partnering, with the emphasis on styles used in performance of concert dance. May be repeated.</td>
<td>Pre: DANC 322 or consent Fall (On-Demand), Spring (On-Demand)</td>
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<tr>
<td>DANC 333</td>
<td>(1) Dance Partnering for Theatre</td>
<td>Expanding knowledge and skill in dance partnering, with the emphasis on styles used in performance of theatre and musical theatre. May be repeated.</td>
<td>Fall (On-Demand), Spring (On-Demand)</td>
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<tr>
<td>DANC 421</td>
<td>(2) Dance Composition II</td>
<td>Continuation of the principles and techniques of choreography with an emphasis on group forms.</td>
<td>Pre: DANC 321</td>
<td>ALT-Fall</td>
<td></td>
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<tr>
<td>DANC 424</td>
<td>(3) Dance Pedagogy</td>
<td>This course is the second in a two-part series of courses required for the K-12 Dance Education license. The focus of the course is on lesson planning, assessment, and teaching in a variety of K-12 settings.</td>
<td>Pre: DANC 324</td>
<td>Spring</td>
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<tr>
<td>DANC 427</td>
<td>(3) Topics in Dance</td>
<td>Rotation of a variety of topics in dance. May be repeated.</td>
<td>Pre: DANC 226, DANC 228 Fall, Spring</td>
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<tr>
<td>DANC 428</td>
<td>(1) Dance Repertory</td>
<td>Repertory experience in performance of the choreography by a variety of dance artists. May be repeated.</td>
<td>Pre: DANC 126, DANC 128 or consent Fall, Spring</td>
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<tr>
<td>DANC 429</td>
<td>(1) Senior Dance Project</td>
<td>Capstone experience for all dance majors. Individually paced and directed, this project can be choreographic, performance, or written.</td>
<td>Pre: Completion of all dance major requirements. Fall, Spring</td>
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</tbody>
</table>
DENTAL HYGIENE

Dental Hygiene
College of Allied Health & Nursing
Department of Dental Hygiene
3 Morris Hall • 507-389-1313
Dental Clinic • 507-389-2147
Email: msudentalclinic@mnsu.edu
Dept. Website: http://ahn.mnsu.edu/dental

Chair: Lisa Fleck
Terri Brown, Brigitte Cooper, Julie Dittrich, Lynnette Engeswick, Lisa Fleck, Trisha Krenik-Matejcek, Angela Monson

Accreditation. American Dental Association (ADA).

The dental hygiene curriculum is designed to provide opportunities for the student to develop a sound clinical and theoretical foundation for the practice of dental hygiene. The graduate is prepared to fulfill the dental hygiene roles as clinician, change agent, educator, researcher and consumer advocate as put forth by the American Dental Hygienists’ Association.

The program is accredited by the American Dental Association’s Commission on Dental Accreditation, and meets the American Dental Association’s Commission on Dental Accreditation Standards for Dental Hygiene. A Bachelor of Science degree is earned upon completion of the program.

POLICIES/INFORMATION

Admission to Program. Application for admission to the Dental Hygiene program is a separate process in addition to being admitted to the University. It is highly recommended to meet with a Dental Hygiene advisor to formulate a plan of study as soon as possible. Requirements for application for admission to the dental hygiene program include:

1. Completion of at least 36 semester credits.
2. A minimum career grade-point average of 2.9.
3. Successful completion of prerequisites of CMST 100 or CMST 102, ENG 101, PSYC 101, SOC 150 or SOC 101, BIOL 220, STAT 154 or STAT 202, DHYG 100, DHYG 219 or DHYG 225 and two of these three courses: BIOL 270, BIOL 330, CHEM 106 or CHEM 111

Transfer students are exempt from the application requirements to complete DHYG 219 or DHYG 225 prior to applying to the program. However, both DHYG 219 and DHYG 225 must be completed prior to starting the program in the fall. Transfer students accepted into the fall DHYG class and first attending Minnesota State University in the fall to start the DHYG program will have DHYG 100 waived.

A maximum of two science courses can be repeated (each once) in order for the application to be accepted.

Required science courses for Dental Hygiene must be taken for a letter grade and a letter grade of “C” or higher must be achieved. A grade of “D” or “F” in a Dental Hygiene course will result in academic suspension from the program. Completion of didactic course numbers DHYG 326 forward requires successful completion of previous Dental Hygiene courses obtaining a “C” or better in order to continue in the Dental Hygiene program. Students must achieve a “C” or higher in DHYG 219 and DHYG 225. A grade of “D” or “F” in either of these courses will result in academic suspension from the program and the student’s position in the fall class will go to another individual on the waiting list.

P/N Grading Policy. All courses required for Dental Hygiene must be taken for a letter grade and a letter grade of “C” or higher must be achieved. A grade of “D” or “F” in a Dental Hygiene course will result in academic suspension from the program. Completion of didactic course numbers DHYG 326 forward requires successful completion of previous Dental Hygiene courses obtaining a “C” or better in order to continue in the Dental Hygiene program. Students must achieve a “C” or higher in DHYG 219 and DHYG 225. A grade of “D” or “F” in either of these courses will result in academic suspension from the program and the student’s position in the fall class will go to another individual on the waiting list.

Costs. A student in the dental hygiene program should be prepared to spend about $375 each semester for books and supplies. At the beginning of the program students will purchase scrubs and lab coats (@$200) and optional dental loupes/light ($@1,000). Students are responsible for purchasing two kits of instruments and supplies during the program. The first kit fee of $1,200 is attached to DHYG 313 in the fall of the junior year. The second kit fee of $1,700 is attached to DHYG 331 in the spring of the junior year. Upon acceptance to the program a deposit of $500 towards the first kit fee is required.

Dental hygienists are at risk for exposure to blood borne pathogens (BBP). Accepted students will be required to be vaccinated against Hepatitis B and will also be required to have their blood tested following any exposures to BBP through needle sticks, cuts or splashes that occur at the Minnesota State Mankato Dental Clinic or any off-site clinical sites. Currently the vaccine series costs approximately $150. Students must successfully complete a CPR course prior to enrolling fall semester.

The American Heart Association Healthcare Provider or the American Red Cross Professional Rescuer are the only CPR courses accepted.
The Dental Hygiene BS degree completion option is considered a broad major and does not require a minor. Each student will develop an individual plan of study with the Degree Completion Coordinator to meet the general education and upper division requirements. Contact Julie Dittrich at julie.dittrich@mnsu.edu for more information.

### Required for Major

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>DHYG 441</td>
<td>Advanced Dental Hygiene Practice</td>
<td>3</td>
</tr>
<tr>
<td>DHYG 442</td>
<td>Current Issues in Dental Hygiene</td>
<td>3</td>
</tr>
<tr>
<td>DHYG 443</td>
<td>Technology in Oral Health</td>
<td>3</td>
</tr>
<tr>
<td>DHYG 444</td>
<td>Principles of Oral Health Promotion</td>
<td>3</td>
</tr>
<tr>
<td>DHYG 445</td>
<td>Educational Methods in Dental Hygiene</td>
<td>3</td>
</tr>
<tr>
<td>DHYG 451</td>
<td>Dental Hygiene Care Planning</td>
<td>3</td>
</tr>
<tr>
<td>DHYG 452</td>
<td>Decision Making in Periodontology</td>
<td>3</td>
</tr>
<tr>
<td>DHYG 453</td>
<td>Research Methods in Dental Hygiene</td>
<td>3</td>
</tr>
<tr>
<td>DHYG 454</td>
<td>Oral Health Promotion Practice</td>
<td>3</td>
</tr>
<tr>
<td>DHYG 455</td>
<td>Educational Practice in Dental Hygiene</td>
<td>3</td>
</tr>
<tr>
<td>DHYG 456</td>
<td>Oral Medicine and Treatment Planning</td>
<td>2</td>
</tr>
</tbody>
</table>

### Pre-requisites to the Major

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 220</td>
<td>Human Anatomy</td>
<td>4</td>
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<tr>
<td>BIOL 330</td>
<td>Principles of Human Physiology</td>
<td>4</td>
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<tr>
<td>DHYG 100</td>
<td>Perspectives in Dental Hygiene</td>
<td>1</td>
</tr>
<tr>
<td>DHYG 219</td>
<td>Head and Neck Anatomy and Histology</td>
<td>2</td>
</tr>
<tr>
<td>DHYG 223</td>
<td>Pharmacology</td>
<td>3</td>
</tr>
<tr>
<td>DHYG 225</td>
<td>Oral Anatomy</td>
<td>2</td>
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<tr>
<td>CHEM 106</td>
<td>Chemistry of Life Process Part I (General)</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 111</td>
<td>Chemistry of Life Processes (5)</td>
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</table>

### Major Common Core

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>DHYG 311</td>
<td>Preclinical Orientation</td>
<td>3</td>
</tr>
<tr>
<td>DHYG 313</td>
<td>Clinical Skills Development</td>
<td>3</td>
</tr>
<tr>
<td>DHYG 321</td>
<td>Radiography I</td>
<td>3</td>
</tr>
<tr>
<td>DHYG 322</td>
<td>Biomaterials I</td>
<td>2</td>
</tr>
<tr>
<td>DHYG 326</td>
<td>Biomaterials II</td>
<td>2</td>
</tr>
<tr>
<td>DHYG 327</td>
<td>Periodontology I</td>
<td>2</td>
</tr>
<tr>
<td>DHYG 328</td>
<td>Radiography Interpretation</td>
<td>2</td>
</tr>
<tr>
<td>DHYG 329</td>
<td>Oral Embryology and Pathology</td>
<td>3</td>
</tr>
<tr>
<td>DHYG 331</td>
<td>Clinical Dental Hygiene I</td>
<td>2</td>
</tr>
<tr>
<td>DHYG 332</td>
<td>Clinical Seminar I</td>
<td>2</td>
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<tr>
<td>DHYG 333</td>
<td>Clinical Dental Hygiene IS</td>
<td>2</td>
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<tr>
<td>DHYG 334</td>
<td>Dental Computer Software Management</td>
<td>1</td>
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<tr>
<td>DHYG 420</td>
<td>Local Anesthesia</td>
<td>1</td>
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<tr>
<td>DHYG 421</td>
<td>Clinical Dental Hygiene II</td>
<td>3</td>
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<tr>
<td>DHYG 422</td>
<td>Clinical Seminar II</td>
<td>1</td>
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<tr>
<td>DHYG 424</td>
<td>Nitrous Oxide Sedation</td>
<td>1</td>
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<tr>
<td>DHYG 425W</td>
<td>Community Dental Health</td>
<td>2</td>
</tr>
<tr>
<td>DHYG 426</td>
<td>Dental Hygiene Jurisprudence and Ethics</td>
<td>1</td>
</tr>
<tr>
<td>DHYG 427</td>
<td>Periodontology II</td>
<td>2</td>
</tr>
<tr>
<td>DHYG 428</td>
<td>Technology in Dentistry</td>
<td>1</td>
</tr>
<tr>
<td>DHYG 431</td>
<td>Clinical Dental Hygiene III</td>
<td>3</td>
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<tr>
<td>DHYG 432</td>
<td>Clinical Seminar III</td>
<td>2</td>
</tr>
<tr>
<td>DHYG 435</td>
<td>Community Practicum</td>
<td>2</td>
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<tr>
<td>DHYG 437</td>
<td>Dental Management of the Medically Compromised Patient</td>
<td>2</td>
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<tr>
<td>DHYG 438</td>
<td>Advanced Community Practice I</td>
<td>1</td>
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<tr>
<td>DHYG 439</td>
<td>Advanced Community Practice II</td>
<td>1</td>
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<tr>
<td>DHYG 440</td>
<td>Restorative Functions</td>
<td>4</td>
</tr>
</tbody>
</table>

### Required Minor: None
DHYG 313 (3) Clinical Skills Development  
This course will teach the operative techniques needed to perform oral prophylactic procedures and health education through laboratory/clinical practice.  
Pre: Admission into Dental Hygiene Program  
Fall,  
Variable

DHYG 321 (3) Radiography I  
This course includes production of dental radiographs, physics of x-radiation, biologic effects, interpretation, processing, mounting, and laboratory practice on mannequins and patients. Special attention is given to infection control, safety precautions, and patient selection.  
Pre: Admission into Dental Hygiene Program  
Fall

DHYG 322 (2) Biomaterials I  
This course is the first of two courses that studies the fundamental elements, purposes and uses of dental materials in the modern dental office. In addition it will give the dental hygiene student a fundamental understanding and skill level of basic dental assisting techniques utilized in the dental office.  
Pre: Admission into Dental Hygiene Program  
Fall

DHYG 326 (2) Biomaterials II  
This course is the second of two courses that studies the fundamental elements, purposes and uses of the materials used in the modern dental office. The student will develop laboratory or clinical competency in functions using dental materials that are legal duties for Minnesota dental hygienists.  
Spring

DHYG 327 (2) Periodontology I  
This course will include a study of supporting tooth structures, identification, classification, etiology, progression and treatment of periodontal diseases.  
Fall

DHYG 328 (2) Radiography Interpretation  
This course will study the normal anatomical features from intraoral and extraoral radiographs. Students will then use this knowledge to interpret what is seen on radiographs to discern normal from abnormal. Interpretation of dental caries, periodontal disease and pathology are among the topics this course will cover.  
Spring

DHYG 329 (3) Oral Embryology and Pathology  
Oral Embryology encompasses development of human body from conception through birth, with a focus on development of the face and hard and soft tissues of the oral cavity. Oral Pathology addresses the causes and mechanisms of disease with special emphasis on common oral lesions and neoplasms, stressing their etiology and clinical manifestations.  
Spring

DHYG 331 (2) Clinical Dental Hygiene I  
This course provides an opportunity for dental hygiene students to develop their roles as educators, clinicians, consumer advocates, change agents, researchers, and administrators in a clinical setting.  
Spring,  
Variable

DHYG 332 (2) Clinical Seminar I  
This course is designed to reinforce topics covered in DHYG 311 through the use of advanced case studies. Emphasis will be placed on evidence-based decision making. Also designed to collaborate with clinic needs as identified in DHYG 331.  
Spring

DHYG 333 (2) Clinical Dental Hygiene II  
This course offers the student continued practice of dental hygiene treatment procedures in the Minnesota State Mankato Dental Clinic.  
Summer  
Variable

DHYG 334 (1) Dental Computer Software Management  
This course is designed to equip the dental hygiene students with the skills necessary to manage a dental computer software program. A focus on networking, dental resource codes and insurance protocol will also be covered.  
Spring

DHYG 336 (3) Cultural Awareness through the Lens of Health  
Concepts of “Global Citizenship” and “Intercultural Competency” are desired attributes of future health care professionals. Students will self-assess their cultural knowledge in preparation for international travel. Interacting with individuals from different cultural backgrounds will provide the opportunity for students to become aware of their own cultural understanding and improve critical thinking and interpersonal skills. Through travel and experiential learning, the students will begin to develop the capacity to identify, discuss and reflect upon the ethical challenges presented in political, social, and personal lives to understand diverse world views of social justice and common good.  
Spring  
Diverse Cultures - Gold

DHYG 420 (1) Local Anesthesia  
This course is designed to be a study of the fundamental elements, purposes, and uses of local anesthesia for the dental hygienist.  
Spring

DHYG 421 (3) Clinical Dental Hygiene II  
This course offers the student continued practice of dental hygiene treatment procedures in the Minnesota State Mankato Dental Clinic. It includes several mandatory off-campus experiences.  
Fall

DHYG 422 (1) Clinical Seminar II  
This course focuses on clinical procedures, educational techniques and legal and ethical issues as they apply to the patient-dental hygiene provider relationship.  
Fall

DHYG 424 (1) Nitrous Oxide Sedation  
The course is designed to be a study of the fundamental elements, purposes and uses of nitrous oxide sedation in the practice of dental hygiene. This course meets the educational criteria established by the Minnesota Board of Dentistry.  
Fall

DHYG 425 (3) Community Dental Health  
This course introduces second year dental hygiene students to the disciplines and basic principles of community dental health, epidemiologic methods and biostatistical measurement analysis. Preventive oral health measures and program development is included to provide a background for the practical application of dental public health methods to the community.  
Fall

DHYG 425W (3) Community Dental Health  
This course introduces second year dental hygiene students to the disciplines and basic principles of community dental health, epidemiologic methods and biostatistical measurement analysis. Preventive oral health measures and program development is included to provide a background for the practical application of dental public health methods to the community. This course is an upper division writing intensive course for the traditional dental hygiene program.  
W1

DHYG 426 (1) Dental Hygiene Jurisprudence and Ethics  
This course focuses on legal and ethical issues as applied to the patient dental hygiene provider relationship.  
Fall

DHYG 427 (2) Periodontology II  
Didactic and clinical study of etiology, diagnosis, preventive and therapeutic procedures involved with periodontal disease.  
Spring

DHYG 428 (1) Technology in Dentistry  
This course is designed to prepare the dental hygiene student in the use of new technologies in the modern dental office. Students will learn to integrate these new technologies into the teledentistry model.  
Fall

DHYG 431 (3) Clinical Dental Hygiene III  
This course offers the student continued practice of dental hygiene treatment procedures in the Minnesota State Mankato Dental Clinic. It includes several mandatory off-campus experiences.  
Fall  
Variable
DHYG 432 (2) Clinical Seminar III
This course focuses on the development of a personal sense of responsibility for the well-being and development of one’s workplace from an employee perspective.
Spring

DHYG 435 (2) Community Practicum
This course focuses on the role of dental hygiene practitioners in promoting optimal oral health at the individual level and in the community.
Fall

DHYG 437 (2) Dental Mgmt. of the Medically Compromised Patient
The course is designed to provide the dental hygiene practitioner with a survey of common medical disorders that may be encountered in a dental practice. The medical problems are organized to provide a brief overview of the basic disease process, etiology, incidence, prevalence, behavior characteristics, medications and oral manifestations commonly presented by the dental patients. As a result of the accumulation of evidence based research, the dental hygiene practitioner will be provided with an understanding of the disease, recognize the severity of the common medical disorders and make a dental management decision providing the patient with the highest possible level of oral health.

DHYG 438 (1) Advanced Community Practice I
The first of two clinical courses designed to utilize the assessment, planning, implementation and evaluation process in a community based setting. This course will address efforts to reduce incidence and severity of oral diseases resulting in improved access to community oral health in complex cases.
Fall

DHYG 439 (1) Advanced Community Practice II
This is the second of two clinical courses designed to utilize the assessment, planning, implementation and evaluation process in a community based setting. This course will address efforts to reduce incidence and severity of oral diseases resulting in improved access to community oral health in complex cases.
Spring

DHYG 440 (4) Restorative Functions
This course meets the requirements of the Minnesota Board of Dentistry for dental hygienists and assistants to legally perform new expanded duties including the placement, contouring and adjustment of amalgam, glass ionomer and composite restorations and the placement and adjustment of stainless steel crowns.
Spring

DHYG 441 (3) Advanced Dental Hygiene Practice
Identify clinical skills and knowledge needed to improve effectiveness as a dental hygienist. Areas addressed: ultrasonic implementation using multiple types of devices, risk factor analysis, comprehensive treatment planning, Periscope (endoscope), carbide/diamond files, advanced instrumentation techniques, patient management, case presentation.
Spring, Summer (On-Demand)

DHYG 442 (3) Current Issues in Dental Hygiene
Topics included but not limited to: advanced practice models to expand oral health services, including restorative procedures; counseling regarding smoking cessation; recent medical advances in the field of dentistry and legal and policy issues currently impacting dental hygiene.
Fall, Summer (On-Demand)

DHYG 443 (3) Technology in Oral Health
Assessment, planning, implementation and evaluation of the impact of emerging dental technology. Topics include dental practice software management, digital radiography, intra-oral cameras, patient education software, lasers in dentistry, and internet information sources for both practitioners and patients.
Fall (On-Demand), Spring

DHYG 444 (3) Principles of Oral Health Promotion
Leadership preparation in the delivery of oral health care in the public health model. Emphasis will be placed on defining oral health problems and solutions, community planning, implementation and evaluation based on the oral health objectives of Healthy People 2010.
Fall, Spring (On-Demand)

DHYG 445 (3) Educational Methods in Dental Hygiene
Examines educational methods needed for effective dental hygiene instruction. Topics addressed within this course will include learner and context analysis, performance objectives, assessment instruments, instructional strategies, formative and summative evaluations. Emphasis will be placed on competency based instruction.
Fall, Spring (On-Demand)

DHYG 447 (3) Dental Health Study Abroad in Belize
The purpose of this course is to introduce students to first hand experience in providing dental hygiene services through a study abroad opportunity. This course centers on an international week long service learning project to San Pedro, Belize. Most of our time and effort will be spent providing dental hygiene treatment for children attending Holy Cross Anglican School. This course will also address ethics, cultural issues, standard of care issues, as well as challenges in providing dental hygiene care in a third world country.
Spring
Diverse Cultures - Gold

DHYG 451 (3) Dental Hygiene Care Planning
This course will address efforts to reduce incidence and severity of oral diseases resulting in improved access to community oral health in complex cases.
Fall

DHYG 452 (3) Decision Making in Periodontology
Demonstration of oral health delivery in community based clinics embracing oral health promotion efforts as a methodology. Increasing demand for care, dental services and prevention resulting in reduction of oral diseases and improved community oral health.
Fall (On-Demand), Spring

DHYG 453 (3) Research Methods in Dental Hygiene
This course focuses on the development of a personal sense of responsibility for the well-being and development of one’s workplace from an employee perspective.

DHYG 454 (3) Oral Health Promotion Practice
Demonstration of oral health delivery in community based clinics embracing oral health promotion efforts as a methodology. Increasing demand for care, dental services and prevention resulting in reduction of oral diseases and improved community oral health.
Pre: DHYG 444
Fall (On-Demand), Spring

DHYG 455 (3) Educational Practice in Dental Hygiene
Provides student awareness of the American Dental Hygienists’ Research Agenda and prepares students on the methodology of research. Includes strengths and limitations of quantitative and qualitative research methods while developing methodological skills and proficiencies related to research.
Fall (On-Demand), Spring

DHYG 456 (2) Oral Medicine and Treatment Planning
This course is designed to facilitate critical thinking skills related to drugs used in dentistry and medicine with emphasis placed on the impact of the dental hygiene diagnosis.
Spring, Summer (On-Demand)

DHYG 499 (1-6) Individual Study
Earth Science

College of Social & Behavioral Sciences
Department of Geography
206 Morris Hall • 507-389-2617
Website: www.http://sbs.mnsu.edu/geography
http://cset.mnsu.edu/chemgeol/programs/geol

Director: Phillip Larson, Ph.D.
Bryce Hoppie, Ph.D.

Earth Science studies the Earth’s interrelated physical systems of atmosphere, biosphere, geosphere, hydrosphere, and outer space. Fundamental to Earth Science are the impacts of people and the interactions of chemical, physical, and biological processes at all spatial scales ranging from submicroscopic to planetary, and over time scales from the immediate to billions of years. Thus, courses in Astronomy, Biology, Chemistry, Geography, Geology, and Physics are required to fulfill degree requirements. Majors may choose to earn the BA or BS in the broadly based program or a more focused Geology “option” (BS only) is available. For secondary teacher licensure see the “Science Teaching” program and major. An Earth Science minor is available.

POLICIES/INFORMATION

Admission to Major is granted by the department. Minimum university admission requirements are:
- a minimum of 32 earned semester credit hours.
- a minimum cumulative GPA of 2.00 (“C”).

Contact the department for application procedures.

GPA Policy. A GPA of 2.0 or higher in a major or minor is required for graduation.

Refer to the College regarding required advising for students on academic probation.

P/N Grading Policy. All courses in earth science must be taken for a letter grade.

EARTH SCIENCE BA

Degree completion = 120 credits

Major Common Core
AST 101 Introduction to Astronomy (3)
AST 102 Introduction to the Planets (3)
BIOL 100 Our Natural World (4)
CHEM 201 General Chemistry I (5)
GEOG 101 Introductory Physical Geography (3)
GEOG 217 Weather (3)
GEOG 315 Geomorphology (3)
GEOG 410 Climatic Environments (3)
GEOL 121 Physical Geology (4)
GEOL 122 Earth History (4)
GEOL 201 Elements of Mineralogy (4)
PHYS 211 Principles of Physics I (4)

Major Restricted Electives (choose 6 credits)
AST 125 Observational Astronomy (3)
BIOL 432 Lake Ecology (4)
GEOG 313 Natural Disasters (3)
GEOG 370 Cartographic Techniques (4)
GEOG 373 Introduction to Geographic Information Systems (4)
GEOG 411 Soils Geomorphology (3)
GEOG 412 Advanced Weather (4)
GEOG 414 Biogeography (3)
GEOG 415 Earth Surface Processes (4)
GEOG 416 Fluvial Geomorphology and Hydrology (4)
GEOG 420 Conservation of Natural Resources (3)
GEOG 440 Field Studies (1-4)
GEOG 471 Digital Field Mapping with GPS (4)
GEOG 474 Introduction to Remote Sensing (4)
GEOG 480 Seminar (1-4)
GEOL 320 Sedimentology and Stratigraphy (4)
GEOL 330 Structural Geology (4)
GEOL 350 Environmental Geology (4)
GEOL 370 Geotectonics (2)
GEOL 450 Hydrogeology (3)

Required for Bachelor of Arts (BA) degree ONLY: Language (8 credits)

Minor Required: None.

EARTH SCIENCE BS

Degree completion = 120 credits

Major Common Core
AST 101 Introduction to Astronomy (3)
AST 102 Introduction to the Planets (3)
BIOL 100 Our Natural World (4)
CHEM 201 General Chemistry I (5)
GEOG 101 Introductory Physical Geography (3)
GEOG 217 Weather (4)
GEOG 315 Geomorphology (3)
GEOG 410 Climatic Environments (3)
GEOL 121 Physical Geology (4)
GEOL 122 Earth History (4)
GEOL 201 Elements of Mineralogy (4)
PHYS 211 Principles of Physics I (4)

Major Restricted Electives (choose 6 credits)
AST 125 Observational Astronomy (3)
BIOL 432 Lake Ecology (4)
GEOG 313 Natural Disasters (3)
GEOG 370 Cartographic Techniques (4)
GEOG 373 Introduction to Geographic Information Systems (4)
GEOG 411 Soils Geomorphology (3)
GEOG 412 Advanced Weather (4)
GEOG 414 Biogeography (3)
GEOG 415 Earth Surface Processes (4)
GEOG 416 Fluvial Geomorphology and Hydrology (4)
GEOG 420 Conservation of Natural Resources (3)
GEOG 440 Field Studies (1-4)
GEOG 471 Digital Field Mapping with GPS (4)
GEOG 474 Introduction to Remote Sensing (4)
GEOL 320W Sedimentology and Stratigraphy (4)
GEOL 330 Structural Geology (4)
GEOL 350 Environmental Geology (4)
GEOL 370 Geotectonics (2)
GEOL 450 Hydrogeology (3)

Minor Required: None.

EARTH SCIENCE BS GEOLOGY OPTION

Geology is the study of the Earth, its materials, and its processes. It concerns itself with solving basic scientific problems and utilizing knowledge of the Earth for the benefit of humankind. Its concerns include but are not limited to soil preservation, water production and quality, hazards mitigation, resource exploration and production, engineering of structures large and small, climate change, and the history of life on Earth and the search for life on other planets.

Major Common Core
CHEM 201 General Chemistry I (5)
GEOL 121 Physical Geology (4)
GEOL 122 Earth History (4)
GEOL 201  Elements of Mineralogy (4)
GEOL 302  Petrology (4)
GEOL 320  Sedimentology and Stratigraphy (4)
GEOL 330  Structural Geology (4)
MATH 121  Calculus I (4)
PHYS 211  Principles of Physics I (4)

**Major Restricted Electives** (choose 6-8 credits)

GEOG 315  Geomorphology (3)
GEOG 373  Introduction to Geographic Information Systems (4)
GEOG 420  Conservation of Natural Resources (3)
GEOG 471  Digital Field Mapping with GPS (4)
GEOG 474  Introduction to Remote Sensing (4)

(choose 4-10 credits)

GEOG 440  Geology Field Camp (4-8)
GEOG 497  Internship (1-10)
GEOL 499  Individual Study (1-5)

(choose 7-8 credits)

GEOL 350  Environmental Geology (4)
GEOL 401  Field Studies (1-3)
GEOL 430  Petroleum and Ore Deposit Geology (3)
GEOL 450  Hydrogeology (3)

Other Graduation Requirements
Successful completion of Research Experience for Undergraduates (REU) can be substituted for GEOL 499 as the capstone experience subject to Department approval.

Minor Required: None.

**EARTH SCIENCE BS TEACHING (5-12)**

Requirements for the Earth Science, Teaching major can be found in the SCIENCE TEACHING section of this catalog.

**GEOARCHAEOLOGY CERTIFICATE**

This certificate cross-trains students in archeology, geography, and geology to emphasize the necessity of understanding physical processes in places and regions as important vectors in shaping human habitation and resource use over time. The certificate prepares students to be highly competitive in either further education or the job market.

Economics

*College of Social & Behavioral Sciences, Department of Economics*

150 Morris Hall • 507-389-2969
Website: www.mnsu.edu/dept/economics

Chair: Phillip Miller

Kwang-IL Choe, Ashok Chowdhury, Atrayee Ghosh Roy, Saleheen Khan, I shuan Li, Phillip Miller, Ved Sharma, Robert Simonson, Michael Spencer, Kwang Woo Park

Economics aims to provide the student with the basic materials and tools of analysis used to understand our present economic system, and to organize data for decision-making purposes in both short and long-range planning. It is designed to help those contemplating business or other careers as well as those who are preparing to teach in the social studies.

**Policies/Information**

**Admission to Major.** Students enrolling in 300-400 level courses must be admitted to the program. Admission is granted by the department. Minimum university admission requirements are:
- a minimum of 32 earned semester credit hours.
- a minimum cumulative GPA of 2.00 (“C”).
Contact the department for application procedures.

**P/N Grading Policy.** Up to six credit hours of electives in the major may be taken as P/N grading. ECON 481 and ECON 498 must be taken as P/N grading.

**GPA Policy.** A minimum cumulative grade point average of 2.0 is required for all courses taken in the required economics core courses and required economics electives for the economics BS or BA major. Furthermore, a minimum of a “C” grade is required in each of the five courses that are prerequisites for ECON 482, ECON 207, ECON 301, ECON 355, ECON 356, and ECON 462.

**Center for Economic Education - Dr. Ashok Chowdhury, Director.** The Center for Economic Education seeks to improve the teaching of economics in elementary and secondary schools. Working in close cooperation with the Minnesota Council on Economic Education and the National Council on Economic Education, the center provides teacher instruction, research, library lending and other services to area schools.
ECONOMICS CONTINUED

ECONOMICS BA
Degree completion = 120 credits

Major Common Core
ECON 201 Principles of Macroeconomics (3)
ECON 202 Principles of Microeconomics (3)
ECON 207 Business Statistics (4)
ECON 301 Quantitative Methods in Economics (3)
ECON 355 Intermediate Microeconomics (3)
ECON 356 Intermediate Macroeconomics (3)
ECON 462 Econometrics (3)
ECON 482 Senior Research Seminar (3)

Major Unrestricted Electives
(choose at least 12 credits from the list of offered economics courses)
ECON 305 Money and Banking (3)
ECON 314W Current Economic Issues (3)
ECON 403 Labor Economics (3)
ECON 405 Central Banking (3)
ECON 406 Economics of Unions (3)
ECON 411 Urban Economics (3)
ECON 412 Resource and Environmental Economics (3)
ECON 416 Sports Economics (3)
ECON 420 International Economics (3)
ECON 429 Economic Education (3)
ECON 440 Public Finance (3)
ECON 450 Economic Development (3)
ECON 463 Applied Econometrics of Financial Markets (3)
ECON 472 Industrial Organization (3)
ECON 480 Seminar in Economics (1-3)
ECON 481 Readings in Economics (1-3)
ECON 491 In-Service (1-3)
ECON 498 Internship (1-3)
ECON 499 Individual Study (1-3)

Major Emphasis
Labor Economics Emphasis
Emphasis is not required in Major. Emphasis used only as an advising tool. See your advisor for guidance.
ECON 403 Labor Economics (3)
ECON 406 Economics of Unions (3)
MGMT 380 Human Behavior in Organizations (3)
MGMT 440 Human Resource Management (3)
MGMT 442 Compensation Management (3)
MGMT 444 Organization Design, Development, and Change (3)

Economics of the Public Sector Emphasis
Emphasis is not required in Major. Emphasis used only as an advising tool. See your advisor for guidance.
ECON 412 Resource and Environmental Economics (3)
ECON 420 International Economics (3)
ECON 429 Economic Education (3)
ECON 429 Economic Education (3)
ECON 429 Economic Education (3)
ECON 429 Economic Education (3)

Financial Economics Emphasis
Emphasis is not required in Major. Emphasis used only as an advising tool. See your advisor for guidance.
BLAW 455 Legal Aspects of Banking and Finance (3)
ECON 305 Money and Banking (3)
ECON 405 Central Banking (3)
ECON 420 International Economics (3)
ECON 463 Applied Econometrics of Financial Markets (3)
FINA 464 Financial Institutions and Markets (3)
FINA 482 Commercial Bank Management (3)
Graduate School Preparation
These courses are recommended for students wanting to attend graduate school in economics. (ECON 301, MATH 121-2, MATH 247, ECON 462 and MATH 354 are most important.) Emphasis is not required in Major. Emphasis used only as an advising tool. See your advisor for guidance.
ECON 301 Quantitative Methods in Economics (3)
ECON 462 Econometrics (3)

MATH 121 Calculus I (4)
MATH 122 Calculus II (4)
MATH 223 Calculus III (4)
MATH 247 Linear Algebra I (4)
MATH 321 Ordinary Differential Equations (4)
MATH 354 Concepts of Probability & Statistics (3)
MATH 417 Real Analysis I (4)

Other Graduation Requirements
Required for Bachelor of Arts (BA) degree ONLY - Language (8 credits)

Required Minor: Yes, Any.

ECONOMICS BS
Degree completion = 120 credits

Major Common Core
ECON 201 Principles of Macroeconomics (3)
ECON 202 Principles of Microeconomics (3)
ECON 207 Business Statistics (4)
ECON 301 Quantitative Methods in Economics (3)
ECON 355 Intermediate Microeconomics (3)
ECON 356 Intermediate Macroeconomics (3)
ECON 420 International Economics (3)
ECON 429 Economic Education (3)
ECON 482 Senior Research Seminar (3)

Required Non-Economics Core Courses
Business Foundation Requirements
BLAW 200 Legal, Political, and Regulatory Environment of Business (3)
FINA 362 Business Finance (3)
IT 101 Introduction to Information Systems (3)
MATH 112 College Algebra (4)
MGMT 200 Introduction to MIS (3)
MGMT 330 Principles of Management (3)
MGMT 346 Production & Operations Management (3)
MRKT 310 Principles of Marketing (3)
ACCT 217 Survey of Financial and Managerial Accounting (4)

Major Emphasis
Labor Economics Emphasis
Emphasis is not required in Major. Emphasis used only as an advising tool. See your advisor for guidance.
ECON 403 Labor Economics (3)
ECON 406 Economics of Unions (3)
MGMT 380 Human Behavior in Organizations (3)
MGMT 440 Human Resource Management (3)
MGMT 442 Compensation Management (3)
MGMT 444 Organization Design, Development, and Change (3)

Economics of the Public Sector Emphasis
Emphasis is not required in Major. Emphasis used only as an advising tool. See your advisor for guidance.
ECON 412 Resource and Environmental Economics (3)
ECON 420 International Economics (3)
ECON 429 Economic Education (3)
ECON 429 Economic Education (3)
ECON 429 Economic Education (3)

Financial Economics Emphasis
Emphasis is not required in Major. Emphasis used only as an advising tool. See your advisor for guidance.
BLAW 455 Legal Aspects of Banking and Finance (3)
ECON 305 Money and Banking (3)
ECON 405 Central Banking (3)
ECON 420 International Economics (3)
ECON 463 Applied Econometrics of Financial Markets (3)
FINA 464 Financial Institutions and Markets (3)
FINA 482 Commercial Bank Management (3)
Graduate School Preparation
These courses are recommended for students wanting to attend graduate school in economics. (ECON 301, MATH 121-2, MATH 247, ECON 462 and MATH 354 are most important.) Emphasis is not required in Major. Emphasis used only as an advising tool. See your advisor for guidance.
ECON 301 Quantitative Methods in Economics (3)
ECON 462 Econometrics (3)
ECON 403 Labor Economics (3)
ECON 412 Resource and Environmental Economics (3)
ECON 420 International Economics (3)
ECON 440 Public Finance (3)
ECON 462 Econometrics (3)
ECON 472 Industrial Organization (3)

Financial Economics Emphasis
Emphasis is not required in Major. Emphasis used only as a advising tool. See your advisor for guidance.

BLAW 455 Legal Aspects of Banking and Finance (3)
ECON 305 Money and Banking (3)
ECON 405 Central Banking (3)
ECON 420 International Economics (3)
ECON 463 Applied Econometrics of Financial Markets (3)
FINA 464 Financial Institutions and Markets (3)
FINA 482 Commercial Bank Management (3)

Graduate School Preparation
These courses are recommendation for students wishing to attend graduate school in economics. (ECON 301, MATH 121, MATH 122, MATH 247, ECON 462 and MATH 354 are most important.) Emphasis is not required in Major. Emphasis used only as a advising tool. See your advisor for guidance.

ECON 301 Quantitative Methods in Economics (3)
ECON 462 Econometrics (3)
MATH 121 Calculus I (4)
MATH 122 Calculus II (4)
MATH 223 Calculus III (4)
MATH 247 Linear Algebra I (4)
MATH 321 Ordinary Differential Equations (4)
MATH 354 Concepts of Probability & Statistics (3)
MATH 417 Real Analysis I (4)

Required Minor: None.

ECONOMICS MINOR

Required for Minor
ECON 201 Principles of Macroeconomics (3)
ECON 202 Principles of Microeconomics (3)

Required Electives for Minor (12 credits)
ECON xxx ECON xxx ECON xxx ECON xxx

COURSE DESCRIPTIONS

ECON 100 (3) An Introduction to the U.S. Economy
Brief description of the operation of the US economic system illustrated by a discussion of current economic policies, issues, and problems. No credit toward a major, minor, or area with economics as a core, or if credit has been earned in ECON 201 and/or ECON 202, or equivalent.
Fall, Spring
GE-5

ECON 103W (3) The Economics of Women’s Issues and Public Policy in the United States
This course will examine the gendered nature of public policy using standard microeconomic tools. It examines the impact of public policy on employment discrimination, reproductive rights, and sexual orientation.
Variable
WI, GE-2, GE-5
Diverse Cultures - Purple

ECON 199 (1) CLEP Economics

ECON 201 (3) Principles of Macroeconomics
Emphasis on forces influencing employment and inflation. Current problems of the economy are stressed along with tools government has to cope with them.
Fall, Spring
GE-5

ECON 202 (3) Principles of Microeconomics
Examines decision making by the individual firm, the determination of prices and wages, and current problems facing business firms.
Fall, Spring
GE-5

ECON 207 (4) Business Statistics
Basic statistical methods including measures of central tendency and dispersion, probability distributions, sampling, problems of estimation and hypothesis testing in the case of one and two sample means and proportions. Chi-Square, one-way analysis of variance, simple regression and correlation analysis, and brief introduction to multiple regression analysis. Use of computer statistical packages required.
Pre: MATH 112 or equivalent
Fall, Spring
GE-2, GE-4

ECON 301 (3) Quantitative Methods in Economics
This course will introduce the student to the use of mathematics in economic analysis. Topics include optimization methods, comparative statics, and linear algebra.
Pre: ECON 201, ECON 202, ECON 207, MATH 112 or equivalent
Fall, Spring

ECON 305 (3) Money and Banking
A descriptive and analytical study of the basic principles of money, banking, and finance as they are related to business and public policy.
Pre: ECON 201 and ECON 202
Fall, Spring

ECON 314W (3) Current Economic Issues
Elementary economic background and analysis of housing, medical care, inflation, unemployment dilemma, pollution, poverty and affluence, balance between public and private sectors, transportation, urban problems, and other issues will be covered in this course.
Fall
WI, GE-5, GE-8

ECON 320W (3) Gender Issues and Economic Globalization
This course will provide tools for analyzing the effects of economic globalization on employment, distribution of income, economic development and socio-economic issues from a gender perspective.
Spring (On-Demand), Summer (On-Demand)
WI
Diverse Cultures - Purple

ECON 355 (3) Intermediate Microeconomics
A survey of imperfect competition, multiple-product firms, multiple-plant firms, and interest theory, designed to develop a system of economic thought.
Pre: ECON 201, ECON 202 and ECON 301
Fall, Spring

ECON 356 (3) Intermediate Macroeconomics
Study of factors determining aggregate level of production, employment, inflation, and implications of monetary and fiscal policies.
Pre: ECON 201, ECON 202 and ECON 301
Fall, Spring

ECON 403 (3) Labor Economics
Employment, wages, and economic security. The structure and impact of labor organizations and labor legislation.
Pre: ECON 201 and ECON 202
Fall, Spring

ECON 405 (3) Central Banking
A detailed examination of the Federal Reserve System and monetary policy. The topics will include a history of the Federal Reserve and its monetary tools and strategies: Monetarism, the demand for money, the money supply process, and the impact of financial deregulation on federal policy.
Pre: ECON 305
Spring
ECON 406 (3) Economics of Unions
Students examine the economics of unions, including the history of union activity, the development and impact of labor laws on labor markets, the economics of strikes and alternative dispute resolution systems, and the impact of unions on wages and price levels.
Pre: ECON 201 and ECON 202
Spring

ECON 411 (3) Urban Economics
Economic forces which account for the development of cities and application of principles to some of the major problems of the modern urban community.
Pre: ECON 201 and ECON 202
Variable

ECON 412 (3) Resource and Environmental Economics
Concepts and techniques for evaluating the alternative uses, management and development of natural resources.
Pre: ECON 201 and ECON 202
Fall

ECON 416 (3) Sports Economics
This course examines the economics of professional and collegiate sports and sports institutions. Students examine the market for sports competitions, the labor market for player talent, and the role government plays in the business of sports.
Pre: ECON 202
Fall

ECON 420 (3) International Economics
The economic rationale for interregional trade: emphasis on current problems.
Pre: ECON 201 and ECON 202
Fall, Spring

ECON 429 (3) Economic Education
Fundamental ideas and structure of economics with emphasis on the application of such ideas in the K-12 school curriculum.
Variable

ECON 440 (3) Public Finance
Public expenditures, taxes and other revenues, debts and financial administration at federal, state, and local levels.
Pre: ECON 201 and ECON 202
Fall

ECON 450 (3) Economic Development
Economic underdevelopment and the relationships between mature economies and developing nations.
Pre: ECON 201 and ECON 202
Fall

ECON 462 (3) Econometrics
The study of methods and techniques for building econometric models with the goal of forecasting and measurement of the economic relationships by integrating economic theory and statistics in it.
Pre: ECON 201, ECON 202, and ECON 207

ECON 463 (3) Applied Econometrics of Financial Markets
This course is designed to cover basic tools in time series analysis and to equip students with quantitative skills to analyze the financial market.
Pre: ECON 207
Fall

ECON 472 (3) Industrial Organization
This course is an introduction to non-competitive markets using economic models and game theory.
Pre: ECON 201, ECON 202 and ECON 207
Fall, Spring

ECON 480 (1-3) Seminar in Economics
Pre: ECON 201 and ECON 202
Variable

ECON 481 (1-3) Readings in Economics
Fall, Spring

ECON 482W (3) Senior Research Seminar
This course will be required of all economics majors and is intended to facilitate the synthesis of the economics concepts learned in other courses. Students will undertake a semester-long research assignment using skills from the economics core requirements.
Pre: ECON, 207, ECON 301, ECON 355, ECON 356, ECON 462
Fall, Spring
WI

ECON 485W (4) Seminar In Applied Econometrics
Students learn how to conduct research projects in economics and related fields by using modern econometric tools and undertake a semester-long research assignment. In addition a student must get a minimum of a “C” grade in each prerequisite.
Pre: ECON 355, ECON 356, ECON 301, and ECON 462
Fall, Spring, Summer (On-Demand)
WI

ECON 491 (1-3) In-Service
Pre: ECON 201 and ECON 202
Fall, Spring

ECON 499 (1-3) Individual Study
Pre: ECON 201 and ECON 202
Fall, Spring

Educational Leadership

Educational Leadership
College of Education
Department of Educational Leadership
115 Armstrong Hall • 507-389-1116
Website: http://ed.mnsu.edu/edleadership/

Chair: Dr. Julie Carlson

The Department of Educational Leadership prepares professionals to enter leadership and administration roles in a variety of educational settings and positions. The department does not offer an undergraduate program, but undergraduate courses are offered on a limited basis for Experiential Education. Please contact the department or the website for more information.
Electrical Engineering

College of Science, Engineering and Technology
Department of Electrical & Computer Engineering and Technology
242 Trafton Science Center N • 507-389-5747
Website: www.cset.mnsu.edu/ecet
Chair: Vincent Winstead, P.E., Ph.D.
Program Coordinator: Vincent Winstead, P.E., Ph.D.

Gale Allen, Nanan He, Tom Hendrickson, Han-Way Huang, Harry Jones, Muhammad Khalil, Julio Mandojana, Puteri Megat-Hamari, Vincent Winstead, Xuenhui Wu, Qun Zhang

Accreditation. The Electrical Engineering program is accredited by the Engineering Accreditation Commission of ABET, www.ABET.org.

Electrical Engineering (EE) encompasses research, development, design and operation of electrical and electronic systems and their components. This program leads to a Bachelor of Science in Electrical Engineering (BSEE). The primary objective of the Electrical Engineering program is to educate engineering professionals who possess a sound design and analytical background coupled with a strong laboratory experience. This means that the department prepares its Electrical Engineering graduates for:
1. Entry into the engineering work environment with well-developed design and laboratory skills.
2. Further study toward advanced degrees in engineering and other related disciplines.
3. Advancement into managerial ranks and/or entrepreneurial endeavors.

The educational objectives for our Bachelor of Science in Electrical Engineering degree are to prepare our graduates to:
1. Function as responsible members of society with an awareness of the social, ethical, and economic ramifications of their work.
2. Become successful practitioners in engineering and other diverse careers.
3. Succeed in full time graduate and professional studies.
4. Pursue continuing and life-long learning opportunities.
5. Pursue professional registration.
6. Provide foundational education that allows for personal growth and flexibility through their career.

Our metrics for determining success in meeting these objectives will include:
1. Assessment of societal, economic awareness, and ethical performance of our graduates by the graduate and employer.
2. Monitoring of the success of our graduates in the work force.
3. Monitoring of the success of our graduates in graduate and professional programs.
4. Assessment of continuing and life-long learning by the graduate (and their employer as applicable).
5. Reviewing the number and success of our students completing professional registration to advance their careers.

The Electrical Engineering degree curriculum includes the following components:
1. A strong background in the physical sciences, mathematics, and the engineering sciences including extensive hands-on laboratory instruction.
2. An integrated design component including instruction in basic practices and procedures, creativity, control, economics, and synthesis. The process begins with basic instruction during the first year and concludes with a capstone design project.
3. A choice of several sub-disciplines in their senior level elective offerings (digital, controls, communications, microelectronics design and fabrication).
4. Opportunities for students to develop sensitivity to the social and humanistic implications of technology and motivate them to make worth while contributions to the profession and society, while upholding the highest standards of professional ethics.
5. Courses in business and economics to promote awareness of management and the economic aspects of engineering.
6. Preparation for continuing study and professional development.

The curriculum offers students the opportunity to emphasize a number of specialized areas including digital systems, communications, controls, and microelectronic design and fabrication.

During the senior year, students must take the first step toward registration as a professional engineer by taking the Fundamentals of Engineering (FE) examination as described in the GPA Policy below.

Minnesota State Mankato offers a 3/2 program with regional Liberal Arts colleges. Contact the department for more information.

Recommended high school preparation is two years of algebra, one year of geometry, one-half year of trigonometry, one-half year of college algebra, and a year each of physics and chemistry. Without this background it may take longer than four years to earn the degree. The first two years students take science and mathematics courses common to all branches of engineering (pre-engineering), as well as supporting work in English, humanities and social sciences. Second-year electrical engineering students complete physics, mathematics and 200-level engineering science courses. Some specialization for a particular engineering major occurs in the second year.

POLICIES/INFO MATION

Admission to Major. Admission to the college is necessary before enrolling in 300- and 400-level courses. Minimum college requirements are:
- a minimum of 32 earned semester credit hours.
- a minimum cumulative GPA of 2.00 (“C”).

Please contact the department for application procedures.

Before being accepted into the program and admitted to 300-level engineering courses (typically in the fall semester), a student must complete a minimum of 62 semester credits including the following:
- General Physics (calculus-based) (12 credits)
- Calculus and Differential Equations (16 credits)
- Electrical Engineering Circuit Analysis I and II (including lab) (7 credits)
- Chemistry (3 credits)
- English Composition (4 credits)
- Statics (3 credits)
- Introduction to Electrical and Computer Engineering (6 credits)
- Technical Communication (4 credits)
- Microprocessor course and lab (3 credits)
- Digital Systems and Test (including lab) (4 credits)

A cumulative GPA of 2.5 for all science and math courses must have been achieved for program admittance. Grades must be 1.65 (“C-”) or better for courses to be accepted.

GPA Policy. Students graduating with a degree in Electrical Engineering must have:
1. completed a minimum of 20 semester credit hours of upper division EE coursework;
2. have a cumulative GPA of 2.25 or higher in all upper division Minnesota State Mankato EE coursework;
3. have completed their senior design sequence at Minnesota State Mankato; and
4. have taken the FE exam and achieved the competency level set by the department.
5. Grades must be 1.65 (“C-”) or better for courses taken at Minnesota State Mankato to be accepted

Petition to evaluate transfer credits must occur no later than the first semester the student is enrolled at Minnesota State Mankato.

All international students wishing to have transfer credits granted from non-U.S. schools will be required to use the ECE evaluation service to be completed no later than first semester at Minnesota State Mankato.

P/N Grading Policy. A student who majors in EE must elect the grade option for all courses even if offered by another department.
For a complete listing of approved Humanities and Social Science courses, please choose 3 credits from Humanities (6 credits) and Social Sciences (6 credits) courses. Choose seven (7) credits from Major Restricted Electives. Choose a minimum of twelve (12) credits from Humanities (6 credits) and Social Sciences (6 credits) courses.

Other Graduation Requirements
Choose seven (7) credits from Major Restricted Electives. Choose a minimum of twelve (12) credits from Humanities (6 credits) and Social Sciences (6 credits) courses. For a complete listing of approved Humanities and Social Science courses, please consult the department website. In general, graduation credit toward the Humanities requirement is not allowed for any course in subject areas such as communication studies, writing, art, music, or theatre that involve performance or practice of basic skills. At least three (3) credits of the courses selected to complete the above requirements must be 300-level or above. At least one 300-level course must follow a lower level course in the same subject area.

Analysis/Probability & Statistics (choose 3 credits)
- MATH 354 Concepts of Probability & Statistics (3)
- ME 291 Engineering Analysis (3)

Required Minor: None.
No minor or other major accepted toward degree.

COURSE DESCRIPTIONS

EE 100 (1) Explorarions in Engineering
This course offers an introduction to the various disciplines of engineering and their relationship to the principles of physics and mathematics. Students are prepared for academic success and the transition into an engineering program.
Fall
GE-12

EE 106 (3) Introduction to Electrical/Computer Engineering I
This introductory course covers digital systems topics including binary numbers, logic gates, Boolean algebra, circuit simplification using Karnaugh maps, flip-flops, counters, shift registers and arithmetic circuits. Problem solving methods, study skills and professional development will be addressed throughout the course.
Pre: MATH 112
Fall Spring

EE 106 (3) Introduction to Electrical/Computer Engineering II
This course presents algorithmic approaches to problem solving and computer program design using the C language. Student will explore Boolean expressions, implement programs using control structures, modular code and file input/output, and interface with external hardware using robots and sensors.
Pre: EE 106
Coreq: EE 106
EE 107 (3) Introduction to Electrical/Computer Engineering III
The course presents algorithmic approaches to problem solving and computer program design using the C language. Student will explore Boolean expressions, implement programs using control structures, modular code and file input/output, and interface with external hardware using robots and sensors.
Pre: EE 106
Coreq: EE 106
Spring

EE 230 (3) Circuit Analysis I
This course is meant to develop Electrical Engineering Circuit Analysis skills in DC and AC circuits. It includes circuit laws and theorems, mesh and node analysis. Natural and step response of RL, RC, and RLC circuits.
Pre: PHYS 222 or concurrent, MATH 321 or concurrent
Fall

EE 231 (3) Circuit Analysis II
Continuation of Circuit Analysis I to include special topics in circuit analysis.
Pre: EE 230 and EE 240, MATH 321, PHYS 222
Spring

EE 234 (3) Microprocessor Engineering I
A course that teaches how to write computer assembly language programs, make subroutine calls, perform I/O operations, handle interrupts and resets, interface with a wide variety of peripheral chips to meet the requirements of applications.
Pre: EE 106, EE 107
Coreq: EE 235
Fall

EE 235 (1) Microprocessor Engineering Laboratory I
Use of development boards and assembly language programming to handle interrupts, interface with parallel I/O ports, memory, and timers. Experiments will involve signal and frequency measurements, data conversions, and interface design.
Pre: EE 106, EE 107
Coreq: EE 234
EE 240 (1) Evaluation of Circuits

EE 244 (2) Introduction to Digital Systems
Simple coding schemes, Boolean algebra fundamentals, elements of digital building blocks such as gates, flip-flops, shift registers, memories, etc.; basic engineering aspects of computer architecture.

EE 253 (1) Logic Circuits Lab
Laboratory support to complement EE 244. Use of laboratory instrumentation to measure characteristics of various logic circuits and digital subsystems. Experimental evaluation of digital logic devices and circuits including logic gates, flip-flops, and sequential machines. Pre: EE 230 and concurrent with EE 244. Spring

EE 254 (1) Digital and Circuits Lab
Laboratory support for EE 231 and EE 244. Experimental evaluation of AC and transient circuits, digital logic devices including logic gates, flip-flops, and sequential machines. Pre: EE 230, EE 240 and concurrently with EE 231 and EE 244 Spring

EE 281 (3) Digital System Design with Testability
Introduction to representing digital hardware using a hardware description language. Introduction to implementation technologies such as PAL’s, PLA’s, FPGA’s and Memories. Analysis, synthesis and design of sequential machines; synchronous, pulse mode, asynchronous and incompletely specified logic. Pre: EE 106, EE 107 Variable

EE 282 (1) Digital System Design with Testability Lab
Laboratory support for EE 282 practical aspects of design and analysis of different types of sequential machines will be presented through laboratory experience. Coreq: EE 281

EE 298 (1-4) Topics
Varied topics in Electrical and Computer Engineering. May be repeated as topics change. Pre: to be determined by course topic

EE 303 (3) Introduction to Solid State Devices
Introduction to crystal structure, energy band theory, conduction and optical phenomena in semiconductors, metals and insulators. Study of equilibrium and non-equilibrium charge distribution, generation, injection, and recombination. Analysis and design of PN-junctions, (bipolar transistor, junction) and MOS field-effect transistors. Introduction to transferred electron devices and semiconductor diode laser. Pre: PHYS 222, and MATH 321 Fall

EE 304 (1) Lab: Introduction to Solid State Devices
Laboratory support for EE 303. Experiments include resistivity and sheet resistance measurements of semiconductor material, probing material, probing of IC chips, PN-junction IV and CV measurements, BJT testing to extract its parameters, MOSFET testing and evaluating its parameters, cv-measurements of MOS structure, and familiarization with surface analysis tools. Fall

EE 332 (3) Electronics I
Introduction to discrete and microelectronics circuits including analog and digital electronics. Device characteristics including diodes, BJT’s, JFET’s, and MOSFET’s will be studied. DC bias circuits, small and large signal SPICE modeling and analysis and amplifier design and analysis will be discussed. Pre: EE 231 Fall

EE 333 (3) Electronics II
The second course of the electronics sequence presenting concepts of feedback, oscillators, filters, amplifiers, operational amplifiers, hysteresis, bi-stability, and non-linear functional circuits. MOS and bipolar digital electronic circuits, memory, electronic noise, and power switching devices will be studied. Pre: EE 332 Spring

EE 334 (3) Microprocessor Engineering II
A more advanced study of microprocessors and microcontrollers in embedded system design. Use of C language in programming, interrupt interfaces such as SPI, I2C, and CAN. External memory design and on-chip program memory protection are also studied. Pre: EE 334 Fall

EE 336 (1) Principles of Engineering Design I
Electrical and computer engineering project and program management and evaluation techniques will be studied. Emphasis will be placed on the use of appropriate tools for planning, evaluation, and reporting on electrical and computer engineering projects. Pre: Junior Standing Fall

EE 337 (1) Principles of Engineering Design II
Application of the design techniques in the engineering profession. Electrical engineering project and program management and evaluation including computer assisted tools for planning and reporting, design-to-specification techniques and economic constraints. Pre: EE 336 Spring

EE 341 (3) Signals & Systems
Analysis of linear systems and signals in the time and frequency domain. Laplace and Fourier transforms. Z-transform and discrete Fourier transforms. Pre: EE 230, MATH 321 and PHYS 222 Fall

EE 342 (1) Electronics Laboratory
This lab is designed to accompany EE 332. The lab covers the experimental measurement and evaluation of diode, BJT, and MOS characteristics; various feedback topologies; oscillator and op-amp circuits; and rectifiers and filter circuits. Pre: EE 231 and EE 332 taken concurrently. Fall

EE 344 (1) Microprocessor II Laboratory
Laboratory support for EE 334. Use of development boards and C Programming language to handle I/O devices, interrupts, and all peripheral functions. Multiple functions such as timers, A/D converters, I/O devices, interrupts, and serial modules will be used together to perform desired operations. Pre: Concurrent with EE 334 Fall

EE 350 (3) Engineering Electromagnetics

EE 353 (3) Communications Systems Engineering

EE 358 (3) Control Systems
EE 363 (1) Communication Systems Laboratory
Spring

EE 368 (1) Control Systems Laboratory
Laboratory support for EE 358. Experimental evaluation of control system concepts including transient response and steady state performance. Analog and digital computers. Pre: EE 341 and concurrent with EE 358
Spring

EE 395 (3) Computer Hardware and Organization
High-level language constructs using a selected assembly language, design alternatives of computer processor datapath, control, memory hierarchy, management unit, use of HDL in describing and verifying combinational and sequential circuits. Design of Computer processor and memory system. Pre: EE 234, EE 235, EE 281
Spring

EE 398 (0) CPT: Co-Operative Experience
Curricular Practical Training: Co-Operative Experience is a zero-credit full-time practical training experience for one summer and on adjacent fall or spring term. Pre: EE 235. At least 60 credits earned; in good standing; instructor permission; co-op contract; other prerequisites may also apply. Fall, Spring, Summer

EE 450 (3) Engineering Economics
Overview of accounting and finance and their interactions with engineering. Lectures include the development and analysis of financial statements, time value of money, decision making tools, cost of capital, depreciation, project analysis and payback, replacement analysis, and other engineering decision making tools. Pre: Advanced standing in the program Fall

EE 453 (3) Advanced Communications Systems Engineering
Behavior of analog systems and digital systems in the presence of noise, principles of digital data transmission, baseband digital modulation, baseband demodulation/ detection, bandpass modulation and demodulation of digital signals. Channel coding, modulation and coding trade-offs, spread spectrum techniques, probability and information theory. Pre: EE 353 and EE 363
Fall

EE 463 (3) Advanced Digital System Design
Design of combinational and sequential systems and peripheral interfaces. Design techniques using MSI and LSI components in an algorithmic state machine; implementation will be stresses. Rigorous timing analysis transmission-line effects and metastability of digital systems will be studied. Pre: EE 244

EE 467W (1) Principles of Engineering Design III
The design and organization of engineering projects. Project proposals, reporting, feasibility studies, and interpretation. Specification preparation, interpretation, and control. Issues involving creativity, project planning and control, and intellectual property rights. Students enrolled in this course must initiate and complete a design project in a small team format. Pre: EE 337 and senior standing Fall WI

EE 471 (3) Advanced Control Systems
This course is a continuation of EE 358. Techniques for the analysis of continuous and discrete systems are developed. These techniques include pole placement, state estimation, and optimal control. Pre: EE 358 and EE 368
Fall

EE 472 (3) Digital Signal Processing
Develop design and analysis techniques for discrete signals and systems via Z-transforms, Discrete Fourier Transforms, implementation of FIR and IIR filters. The various concepts will be introduced by the use of general and special purpose hardware and software for digital signal processing. Pre: EE 341
Spring

EE 473 (3) Electrical Power Systems Analysis and Design
Power generation, transmission and consumption concepts, electrical grid modeling, transmission line modeling, electric network power flow and stability, fault tolerance and fault recovery, economic dispatch, synchronous machines, renewable energy sources and grid interfacing. Pre: EE 231 or via permission from instructor Variable

EE 474 (4) Power Electronics
This course is designed to provide students with knowledge of the design and analysis of static power conversion and control systems. The course will cover the electrical characteristics and properties of power semiconductor switching devices, converter power circuit topologies, and the control techniques used in the applications of power electronic systems. Laboratories consist of computer-based modeling and simulation exercises, as well as hands-on laboratory experiments on basic converter circuits and control schemes. Pre: EE 333
Fall

EE 475 (3) Integrated Circuit Engineering
Introduction to theory and techniques of integrated circuit fabrication processes, oxidation, photolithography, etching, diffusion of impurities, ion implantation, epitaxy, metallization, material characterization techniques, and VLSI process integration, their design and simulation by SUPREM. Pre: EE 303 and EE 332
Fall

EE 476 (3) Antennas, Propagation, & Microwave Engineering
Principles of electromagnetic radiation, antenna parameters, dipoles, antenna arrays, long wire antennas, microwave antennas, mechanisms of radiowave propagation, scattering by rain, sea water propagation, guided wave propagation, periodic structures, transmission lines, microwave/millimeter wave amplifiers and oscillators, MIC & MMIC technology. Pre: EE 350 Variable

EE 477W (1) Principles of Engineering Design IV
Completion of design projects and reports. Lectures on ethics, issues in contracting and liability, concurrent engineering, ergonomics and environmental issues, economics and manufacturability, reliability and product lifetimes. Lectures by faculty and practicing engineers. Pre: EE 467 and Senior Standing Spring WI

EE 479 (3) Superconductive Devices
Magnetic and superconducting properties of materials, microscopic theory of superconductivity and tunneling phenomenon. Josephson and SQUID devices, survey of computer memories, memory cell and shift register, A/D converters and microwave amplifiers. Integrated circuit technology and high temperature superconductors. Pre: EE 303 Variable

EE 480 (1) Integrated Circuit Fabrication Lab
Introduction to integrated circuit fabrication processes, device layout, mask design, and experiments related to wafer cleaning, etching, thermal oxidation, thermal diffusion, photolithography, and metallization. Fabrication of basic integrated circuit elements pn junction, resistors, MOS capacitors, BJT and MOSFET in integrated form. Use of analytic tools for in process characterization and simulation of the fabrication process by SUPREM. Pre: Concurrent with EE 475
Fall
Electronic Engineering Technology

College of Science, Engineering & Technology
Department of Electrical & Computer Engineering and Technology
242 Trafalgar Science Center N • 507-389-5747
Website: www.cset.mnsu.edu/ecet

Chair: Vincent Winstead, P.E., Ph.D.
Program Coordinator: Vincent Winstead, P.E., Ph.D.

Gale Allen, Nannan He, Tom Hendrickson, Han-Way Huang, Harry Jones, Muhammad Khalig, Julio Mandojana, Puteri Megat-Hamari, Vincent Winstead, Xuanhui Wu, Qun Zhang

Accreditation. The Electronic Engineering Technology program is accredited by the Engineering Technology Accreditation Commission of ABET, 415 N. Charles Street, Baltimore, MD 21201, 410.347.7700, www.ABET.org

Electronic Engineering Technology is a technological field requiring the application of scientific and engineering knowledge and methods, combined with technical skills, in support of engineering activities. An electronic engineering technologist is a person who is knowledgeable in electronics theory and design and who understands state-of-the-art practices in digital and analog circuits and systems. Computers, controls/automation, robotics, instrumentation, and communications are just a few fields open to engineering technologists.

Overall the program strives to prepare students for entry into the technical workforce with well-developed skills. In particular, the department strives to ensure that its graduates have an ability to:

1. Apply knowledge of science, mathematics, and engineering
2. Design, and conduct experiments as well as analyze and interpret data
3. Design a system, component, or process to meet specified needs
4. Function effectively in teams
5. Identify, formulate, and solve engineering problems
6. Have an understanding of professional and ethical responsibilities
7. Communicate effectively

The Educational Objectives for our Bachelors Degree in Electronic Engineering Technology program area:
1. Function as responsible members of society with an awareness of the social, ethical, and economic ramifications of their work.
2. Become successful practitioners in electronic engineering technology and other diverse careers.
3. Pursue continuing and life-long learning opportunities.
4. Provide necessary skills to advance technically and/or managerially
5. Provide foundational education that allows for personal growth and flexibility through their career.

Our metrics for determining success in meeting these objectives will include:
1. Assessment of societal, economic awareness, and ethical performance of our graduates by the graduate and employer.
2. Monitoring of the success of our graduates in the work force.
3. Assessment of continuing and life-long learning by the graduate (and their employer as applicable).
4. Ongoing contact with graduates to determine career paths and challenges confronted.
Admission to Major is granted by the department. Minimum program admission requirements are:
- a minimum of 32 earned semester credit hours.
- a minimum cumulative GPA of 2.00 (“C”).
Contact the department for application procedures.

Graduation Policy. Students graduating with a degree in Electronic Engineering Technology must have:
1) completed a minimum of 20 semester credit hours of upper division EET courses;
2) have a cumulative GPA of 2.0 or higher for all Minnesota State Mankato EET coursework; and
3) have completed their senior design sequence (EET 461 and EET 462) at Minnesota State Mankato.

P/N Grading Policy. A student who majors or minors in EET must elect the grade option for all required courses including general education courses listed by number even if offered by another department.

If the credits earned for composition, technical writing and communication studies courses equal less than 9 credits, either an advanced communication studies course or a course in English language literature must be selected as a general elective.

In addition to the transfer of credit policy described in this catalog for students transferring to Minnesota State Mankato from other schools, the electronic engineering technology program has additional policies:
1. All transfer student must take EET 221.
2. For courses taken at technical colleges/vocational technical schools and pertinent courses taken in the military the student may receive up to 8 credits upon review of course materials, grades and written approval by the program coordinator. The credit can be used for EET 112, EET 113 and EET 114. The student may also attempt to test out of EET 114, EET 222, and EET 223.
3. For courses taken at community colleges and four-year colleges, up to 25 credits may be accepted if the transcript is from an ABET-accredited program. If the program is not accredited by ABET, up to 20 credits may be accepted. Grades of transfer credits must be “C” or better to be acceptable for substitution for required courses.
4. Grades must be “C-” (1.67) or better for courses taken at Minnesota State Mankato.

Petition to evaluate transfer credits must occur no later than the first semester the student is enrolled in or declared a major housed in the Department of Electrical and Computer Engineering and Technology.

Testing for course credit will be available via prior application made with the program coordinator. Students may not apply for credit by examination for an EET course in which they were previously enrolled at Minnesota State Mankato.

In addition to the transfer of credit policy described in this catalog for students transferring to Minnesota State Mankato from other schools, the electronic engineering technology program has additional policies:
1. All transfer student must take EET 221.
2. For courses taken at technical colleges/vocational technical schools and pertinent courses taken in the military the student may receive up to 8 credits upon review of course materials, grades and written approval by the program coordinator. The credit can be used for EET 112, EET 113 and EET 114. The student may also attempt to test out of EET 114, EET 222, and EET 223.
3. For courses taken at community colleges and four-year colleges, up to 25 credits may be accepted if the transcript is from an ABET-accredited program. If the program is not accredited by ABET, up to 20 credits may be accepted. Grades of transfer credits must be “C” or better to be acceptable for substitution for required courses.
4. Grades must be “C-” (1.67) or better for courses taken at Minnesota State Mankato.

Petition to evaluate transfer credits must occur no later than the first semester the student is enrolled in or declared a major housed in the Department of Electrical and Computer Engineering and Technology.

All international students wishing to have transfer credits granted from non-U.S. schools will be required to use the ECE evaluation service to be completed no later than first semester at Minnesota State Mankato.

Testing for course credit will be available via prior application made with the program coordinator. Students may not apply for credit by examination for an EET course in which they were previously enrolled at Minnesota State Mankato or for any EET course above EET 223.

Grades must be 1.65 “C-” or better for courses taken at Minnesota State Mankato to be accepted.

**ELECTRONIC ENGINEERING TECHNOLOGY BS**
Degree completion = 128 credits

Students who do not have the required background for MATH 115 may have to take additional preparatory coursework as well. Consult with your major advisor to plan your general education and major requirements.

All students must complete a minimum of 12 semester credits of mathematics starting with Precalculus math and a minimum of 24 semester credits of combined mathematics and science courses.

**Required General Education**
Students in this degree program must complete 21 additional general education course credit hours to meet university general education and diverse cultures requirements.
CMST 102 Public Speaking (3)
ENG 101 Composition (4)

**Pre-requisites to the Major**
EET 113 DC Circuits (3)
EET 114 AC Circuits (3)
EET 141 Integrated Computer Technology I (4)
EET 142 Integrated Computer Technology II (4)
EET 143 Integrated Computer Technology III (4)
EET 221 Electronic CAD (3)
EET 222 Electronics I (4)
EET 223 Electronics II (4)
EET 254 Microprocessors I (4)
MATH 115 Precalculus Mathematics (4)
MATH 121 Calculus I (4)
MATH 127 Calculus II for Engineering Technology: Integration (2)
PHYS 211 Principles of Physics I (4)
PHYS 212 Principles of Physics II (4)

**Major Common Core**
Three (3) credits of EET 497 may be used to satisfy common core requirements.
CHEM 104 Introduction to Chemistry (3)
EET 340 Programmable Hardware Technology (4)
EET 341 Electronic Shop Practices (2)
EET 355 Electrical Power Systems (3)
EET 452 Operational Amplifier Applications (3)
EET 456 Analog Communications (4)
EET 461 Industrial Automation I (4)
EET 462 Industrial Automation II (4)
EET 484 Microprocessors II (4)
EET 497 Internship (3)
MET 427 Quality Management Systems (3)

**Major Restricted Electives**
(choose a minimum of 6 credits from 300-level and 400-level courses with advisor’s approval.)

**Major Unrestricted Electives**
(choose one of the following)
STAT 154 Elementary Statistics (3)
STAT 354 Concepts of Probability and Statistics (3)

**Other Graduation Requirements**
EE 450 Engineering Economics (3)

**Required Minor: None.**

**RENEWABLE ENERGY CERTIFICATE PROGRAM**
Renewable Energy certificate includes targeted courses in power systems, instrumentation and fluid power intended to supplement the contents of a technical Associate of Science (AS) degree or Technician program in Wind Turbine Technology or AS/BS degree in Renewable Energy. The certificate includes three courses for a total of nine credits.

**Common Core**
AET 334 Fluid Power (3)
EET 315 Programmable Instrumentation (3)
EET 355 Electrical Power Systems (3)

**ELECTRONIC ENGINEERING TECHNOLOGY MINOR**

**Required for Minor**
EET 112 Elementary Electricity and Electronics (3)
EET 113 DC Circuits (3)
EET 114 AC Circuits (3)
EET 222 Electronics I (4)

Required for Minor (Elective Options, 7-8 credits)

Digital Option
EET 254 Microprocessors I (4)
EET 141 Integrated Computer Technology I (4)

Electronics Option
EET 223 Electronics II (4)
(choose one of the following)
EET 452 Operational Amplifier Applications (3)
EET 455 Power Electronics (3)
EET 492 Integrated Circuit Technology (4)

Networking Option
EET 254 Microprocessors I (4)
EET 430 Computer Networking I (4)

Communications Options
EET 223 Electronics II (4)
EET 456 Analog Communications (4)

Power Option
EET 223 Electronics II (4)
EET 355 Electrical Power Systems (3)

COURSE DESCRIPTIONS

EET 112 (3) Elementary Electricity and Electronics
The basic elements of electricity and electronics are explored in an internet enabled, self paced course. Laboratories make use of a Virtual Laboratory environment to provide experience with wires, power, circuits, and digital electronics.
Fall, Spring
GE-3

EET 113 (3) DC Circuits
A study of DC electrical circuits, Kirchhoff’s laws, series and parallel circuits, inductors, capacitors, circuit response to RL, RC and RLC circuits. Thevenin’s equivalent circuit theorem, and other network analysis theorems. Use of dependent sources in DC circuits.
Pre: MATH 115, or concurrent
Fall, Spring

EET 114 (3) AC Circuits
Pre: EET 113
Fall, Spring

EET 115 (3) Understanding Computers
A self-paced, interactive, multi-media course, for nonengineering students, exploring the basics of computer hardware. The course will cover concepts behind computer design and operation, including issues such as the need for RAM, hard drive, memory, ROM, etc.
Fall, Spring
GE-13

EET 116 (3) Communications-Past, Present & Future
This is an introductory course in the use of technology for communication. During the semester students will study the evolution of communications technology from early days to the present. This course will cover wireless, analog, and digital techniques including telephony, the internet, and mobile formats. The student will study theory and principles involved in the different types of communications. Modern techniques in digital communications will be discussed and demonstrated through simulation. A consumer example of digital communication will be given.
Variable
GE-13

EET 117 (3) Introduction to Digital Electronics
Hands-on experiences in the use of digital integrated circuits and logic families. Students will study logic gates, number systems, flip flops, latches, registers, computer arithmetic and memory. A self paced format with an open laboratory format.
Variable

EET 118 (3) Electricity - Generation, Usage & Green Alternatives
This course covers the development and status of electrical power as a global resource. This includes usage, generation, and impact on societies through out the world. Finally, the course will examine the many renewable generation options.
Variable
GE-3, GE-8

EET 125 (3) Perspective on Technology
Historical, cultural, ethical, philosophical, developmental, and creative aspects of engineering and technology as a discipline are explored. The course also examines concepts and events leading to important innovations of recent times; microwave ovens, FAX machines, personal computers, traffic signals, and video games. Available for general education and cultural diversity offered as self-paced online format.
Fall
GE-6, GE-8
Diverse Cultures - Purple

EET 141 (4) Integrated Computer Technology I
Digital circuit, logic, and C programming skills needed for electronic and computer engineering technology. Covers binary arithmetic, clock distribution, timing, TTL, CMOS, logic gates, Boolean algebra, multiplexer, counter, adder, logic simulation, C language elements, C programming techniques and use of digital test equipment. Students design and build an Arithmetic Logic Unit (ALU) from small-scale logic components and simulate each block in C.
Coreq: EET 113
Fall

EET 142 (4) Integrated Computer Technology II
Continues building digital circuit, logic, and C programming skills needed for electronic and computer engineering technology. Covers comparators, decoding, encoding, multiplexers, flip-flops, Schmitt Trigger, C functions, arrays, variables, recursive functions, structures, and strings. Students design, build and test a microprocessor using TTL gates and simulate each block in C.
Pre: EET 141
Spring

EET 143 (4) Integrated Computer Technology III
Sequential circuits, logic timing, clock distribution, counter, LED display, shift register, transceiver, 555 timer, 555 oscillator, D/A converter, RAM, ROM, mass memory, synchronous logic, asynchronous logic, microprocessor-interfacing, testability, and simulation.
Pre: EET 142
Fall

EET 221 (3) Electronic CAD
Drafting principles involving use of computer electronic CAD software in laying out block diagrams, schematic diagrams, production drawings, graphical presentation of data, and printed circuit board layout and construction.
Pre: EET 113
Fall

EET 222 (4) Electronics I
An introduction to semiconductor theory and circuits: includes characteristics curves, biasing techniques and small signal analysis of FETs and MOSFETs, feedback concept, BJT and FETs frequency response.
Pre: EET 113
Fall

EET 223 (4) Electronics II
An introduction to differential amplifier, linear and nonlinear operational amplifiers, power amplifiers, linear digital ICs, oscillators, power supplies, D/A, A/D conversion, four layered devices and their applications.
Pre: EET 222
Coreq: EET 114
Spring
**EET 254 (4) Microprocessors I**
A study of microcomputer hardware and software fundamentals, the instruction set and the addressing modes of a microprocessor/microcontroller, assembly programming, basic I/O concepts, parallel I/O methods, asynchronous serial I/O methods, synchronous serial I/O methods, A/D conversion, and timer applications. 
Pre: EET 143 
Spring

**EET 298 (1-4) Topics**
Varied topics in Electronic and Computer Engineering Technology. May be repeated as topics change. 
Pre: to be determined by course topic

**EET 310 (4) Programming Tools**
Several programming tools and their use in creating electronic hardware systems are covered in this course. Creating special-purpose hardware using numerical analysis programs written in C. Creating hardware utilizing Visual applications written in C. Use of scripting languages in hardware applications. Using Excel for input-output functions. 
Pre: EET 143, EET 222 and EET 254

**EET 315 (3) Programmable Instrumentation**
Instrumentation system design and integration with sensors, actuators and other electronic indicator components. Programming in a block diagram environment and with embedded C to interface different hardware components. 
Pre: MATH 113 or MATH 115
Variable

**EET 340 (4) Programmable Hardware Technology**
Create working programmable hardware using FPGA, GAL and other logic technology. Use industry standard tools such as Verilog, Xilinx, Orcad and Multisim along with development kits and extension boards to implement programmable systems. Interface LED displays, switches and I/O devices with programmable logic to create processing systems. Evolution of programmable logic and analog circuits. 
Pre: EET 143 
Spring

**EET 341 (2) Electronic Shop Practices**
An introduction to tools, equipment, materials, and techniques used in fabrication of electronic projects and printed circuit boards. 
Pre: EET 142 
Spring

**EET 355 (3) Electrical Power Systems**
Electrical power and magnetic circuit concepts, transformers, generators and motors (DC, synchronous, induction), special purpose motors, power-electronic motor drivers, prime movers/alternatives, generation, transmission/distribution, system stability/protection. 
Pre: PHYS 212 
Fall

**EET 393 (1-4) Practicum**
Elective credit for approved experience in off-campus work related to EET major. Permission required. 
Fall, Spring

**EET 398 (0) CPT: Co-Operative Experience**
Curricular Practical Training: Co-Operative Experience is a zero-credit full-time practical training experience for one summer and on adjacent fall or spring term. Special rules apply to preserve full-time student status. Please contact an advisor in your program for complete information. 
Pre: EET 223. At least 60 credits earned; in good standing; instructor permission; co-op contract; other prerequisites may also apply. 
Fall, Spring, Summer

**EET 430 (4) Computer Networking I**
An introduction to the basic foundations of computer networking. The course will encompass telecommunications, local area networks, wide area networks and wireless communication. Topics covered include OSI model, the TCP/IP MODEL, different network topologies and associated hardware, error detection and correction, protocols, and security. 
Pre: EET 143, EET 223, EET 254 
Fall

**EET 431 (4) Computer Networking II**
Pre: EET 430 
Spring

**EET 441 (4) Embedded Systems**
Design and prototyping of embedded systems including both hardware and software components. A variety of hardware, software, sensors and displays will be used depending on the embedded system requirements. Issues related to hardware and software specifications will be studied as well as appropriate documentation standards. 
Pre: EET 143 
Spring

**EET 452 (3) Operational Amplifier Applications**
Operational amplifier circuits utilized in filters, sensors, comparators, voltage regulators, device testing, measurement systems, multipliers, phase-locked loops, and A/D converters. Differential amplifier basics. Linear integrated circuit processing. 
Pre: EET 223 and MATH 121 
Fall

**EET 455 (3) Power Electronics**
Use of solid-state switching devices in the conversion and control of electrical energy for low power and high power applications such as switched-mode regulated DC power supplies, motor speed control, lighting control, uninterruptible power supplies and HVDC transmission. 
Pre: EET 143 
Variable

**EET 456 (4) Analog Communications**
Communications principles and systems. Practical engineering aspects involved in modulation-demodulation, receivers, transmitters and filters. Also included are radiation and antennas, guided waves, microwaves, and microwave systems. 
Pre: EET 222 
Spring

**EET 458 (1) Advanced Instrumentation**
Experiences with electronic equipment and instrumentation including maintenance, repair, calibration, safety and component identification. 
Pre: 25 hours of EET courses, or consent 
Spring

**EET 461 (4) Industrial Automation I**
Automation components and subsystems involving sensors, transistors, logic, amplifiers, software, microprocessors, PLCs, actuators, encoders, stages, motors, controllers, and drives. Students design, simulate, build, test and document automation systems for Capstone projects. 
Pre: EET 223 and EET 254 
Fall

**EET 462 (4) Industrial Automation II**
Continues building skills in automation components and subsystems involving sensors, transistors, logic, amplifiers, software, microprocessors, PLCs, actuators, encoders, stages, motors, controllers and drives. Students design, simulate, build, test and document automation systems for Capstone projects. 
Pre: EET 461 
Spring
EET 484 (4) Microprocessors II
A study of a high performance microprocessor architecture. Applications of a microprocessor for monitoring and controlling systems will be studied. Optimal utilization of a microprocessors resources will be stressed. PC programming in assembly and a high level language.
Pre: EET 143
Fall

EET 486 (3) Digital Communications
Pre: EET 142, EET 222
Variable

EET 487 (3) RF Systems Technology
Pre: EET 223
Variable

EET 491 (1-4) In-Service

EET 492 (4) Integrated Circuit Technology
Semiconductor industry and overview of integrated circuit manufacturing, integrated circuit types, crystal growth and wafer manufacturing, physics of semiconductor materials, detail of major IC fabrication steps, process yield, semiconductor devices and integrated circuit formation, packaging, and semiconductor measurements, introduction to layout tools.
Pre: EET 223
Spring

EET 494 (1) Global Experience in Engineering and Technology
This class provides students pursuing a minor in “Global Solutions in Engineering and Technology” with an opportunity to explore a set of topics related to achieving success in advance of and following an international experience (internship, study abroad, etc.). Speakers will include faculty, graduate students, visiting researchers and industry members as well as student participants. Returning students will be required to participate in mentoring of students preparing for their international experience and provide written and/or oral presentations of various topics during the semester. This course is required both before and after participation in the international experience (min. 2 cr.)
Variable

EET 497 (1-6) Internship
Should be taken at end of junior year. Permission required.
Pre: 40 hrs EET credits or written permission from program coordinator.
Fall, Spring

EET 498 (1-4) Topics
Varied topics in Electronic and Computer Engineering Technology. May be repeated as topics change.
Pre: to be determined by course topic

EET 499 (1-4) Individual Study
Fall, Spring

Elementary Education

The Department of Education Studies: Elementary and Early Childhood has a major responsibility to provide professional education for early childhood and elementary teachers. The general goals of this program are to develop the dispositions, knowledge, and skills of candidates for licensure; to make available pre-professional field experiences in order to introduce students to the total school context; to provide the direct experience of classroom teaching under supervision; and to develop understanding of curriculum design in its theory and process of formulation. Emphasis shall be on the acquiring of knowledge, professional skills and learning environment awareness.

Note: Requirements related to teaching majors of professional education coursework are subject to change as new rules governing program approval are adopted by the Board of Teaching.

POLICIES/INFORMATION

Admission to the Major.
1. Completion of 30 credits.
2. Minimum grade of “B” in ENG 101 and CMST 100 or CMST 102.
3. Cumulative grade point average of 3.00 or better.

Admission to Professional Education.
1. Minimum grade of “B” (ENG 101, CMST 100 or CMST 102)
2. MATH 201; EEC 215 and EEC 222W
3. Cumulative GPA of 3.00 or higher
4. Completion of 40 credits
5. Completion of or registration for Minnesota Teacher Licensing Examination Basic Skills
6. Successful completion of Writing Lab
7. Completion of National Criminal Background Check
8. Proof of liability insurance

Admission to Blocks. Admission to Blocks is based upon an application process and is competitive based upon cumulative GPA. While in Blocks students will be monitored for:
1. Successful completion of coursework
2. Successful completion of field experiences
3. A cumulative GPA of 3.00 or higher
4. Evaluation of professional dispositions
5. Completion and validation of application materials one year prior to student teaching semester.
6. Completion of National Criminal Background Check

Admission to Student Teaching (119 Armstrong Hall)
Director of Office of Field and International Experience: Elizabeth Finnessy, Ph.D.
Student teaching at Minnesota State Mankato is a results-oriented, performance based 16-week program requiring the demonstration of an acceptable level of teaching performance in the areas of planning and preparation, enhancing the learning environment, teaching for student learning, and professionalism. Multiple methods of assessment are used and evidence collected to provide a view of the teacher candidate’s skills and dispositions. These methods include direct observations of teaching activities by public school and university faculty, the use of videotaped lessons and activities for self-assessment, use of logs, participation in learning communities, and participation in activities reflective of the professional responsibilities of teachers (e.g., parent conferences). The Director of the Office of Field and International Experience requests placements for all teacher candidates in partner districts, especially our Professional Development Schools. Teacher candidates should not contact schools regarding their placement.
Admission to the student teaching experience is contingent upon completion of:
1. Completion of all coursework in major and General Education requirements.
2. A cumulative GPA of 3.00 or higher; grades of “C” or higher in all program requirements.
3. Admittance to Professional Education.
4. Completion of all professional education course work.
5. Completion and validation of formal application materials one year prior to student teaching semester.
6. Attendance at all preliminary student teaching meeting(s).
7. Recommendation of advisor.
8. Approval of placement by school district administration, a mentor teacher, and Director of the Office of Field and International Experience, and completion of Minnesota State Police Background check materials.

Application material and specific deadline dates are available online at [http://ed.mnsu.edu/filed/studentteaching/applications.html](http://ed.mnsu.edu/filed/studentteaching/applications.html)

The majority of Block 3 and Block 4 (Student Teaching) field experiences will be long-term placements. Long-term placements are consecutive placements during the last two semesters in one setting. These typically take place in our professional development schools.

Study abroad experiences may be available during student teaching. Selection is based on personal interview, faculty recommendation, and grade point average. Students develop interpersonal communication skills and dispositions for living in a global society. Student participating in study abroad opportunities will be required to complete course requirements in a shorter timeframe, thus long-term placements for Block 3 field experiences and student teaching will be highly recommended. Additional fees will be incurred with participation in student teaching abroad programs.

**Teacher Licensure (118 Armstrong Hall)**

**Coordinator: Gail Orcutt.**

The University recommends licensure to a state upon satisfactory completion of a licensure program. However, licensure does not occur automatically through graduation and the awarding of a diploma. Students need to make application for a Minnesota teaching license at the close of the term in which they graduate. The College of Education, 118 Armstrong Hall, coordinates the licensure process. In addition to meeting all program requirements, the MTLE Basic Skills examination in reading, writing, and mathematics needs to be successfully completed, as well as the Elementary Pedagogy and Content examinations. Minnesota State Law requires that all candidates applying for initial licensure in this state be fingerprinted for national background checks. A conduct review statement will also need to be completed and signed. There is a $31 fee for the criminal background check. The fee for the issuance of a Minnesota teaching license is $57.

**GPA Policy.** All coursework listed in the elementary Education degree requires a cumulative GPA of 3.00 and a grade of “C” or higher. Students must achieve at least a 3.00 GPA in Professional Education courses.

**Admission to major and Professional Education** is granted by the academic department.

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**ELEMENTARY EDUCATION BS, TEACHING**

Degree completion = 120 credits

**Required General Education**

HIST 190-US History to 1877 is required of all Elementary Education majors beginning Fall 2014.

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 100</td>
<td>Elements and Principles of Art (3)</td>
</tr>
<tr>
<td>AST 101</td>
<td>Introduction to Astronomy (3)</td>
</tr>
<tr>
<td>CHEM 100</td>
<td>Chemistry in Society (4)</td>
</tr>
<tr>
<td>EEC 222W</td>
<td>Human Relations in a Multicultural Society (3)</td>
</tr>
<tr>
<td>ENG 101</td>
<td>Composition (4)</td>
</tr>
<tr>
<td>GEOG 100</td>
<td>Elements of Geography (3)</td>
</tr>
<tr>
<td>GEOL 100</td>
<td>Our Geologic Environment (3)</td>
</tr>
<tr>
<td>HLTH 240</td>
<td>Drug Education (3)</td>
</tr>
<tr>
<td>MATH 201</td>
<td>Elements of Mathematics I (3)</td>
</tr>
<tr>
<td>THEA 101</td>
<td>Acting for Everyone (3)</td>
</tr>
</tbody>
</table>

**Communication Studies (choose 1 course- 3 credits)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMST 100</td>
<td>Fundamentals of Communication (3)</td>
</tr>
<tr>
<td>CMST 102</td>
<td>Public Speaking (3)</td>
</tr>
</tbody>
</table>

**Major Common Core (choose 28 credits)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 421</td>
<td>Art Methods Elementary School (2)</td>
</tr>
<tr>
<td>BIOL 480</td>
<td>Biological Lab. Experiences for Elementary Teachers (3)</td>
</tr>
<tr>
<td>EEC 215</td>
<td>Introduction to Educational Psychology and Instruction for the Elementary Classroom (4)</td>
</tr>
<tr>
<td>ENG 325</td>
<td>Children’s Literature (3)</td>
</tr>
<tr>
<td>HP 323</td>
<td>Elementary Physical Education Methods (2)</td>
</tr>
<tr>
<td>KSP 417</td>
<td>Materials for Children (3)</td>
</tr>
<tr>
<td>MATH 202</td>
<td>Elements of Mathematics II (3)</td>
</tr>
<tr>
<td>MATH 203</td>
<td>Elements of Math III (3)</td>
</tr>
<tr>
<td>MUS 340</td>
<td>Materials and Methods of Teaching Music (2)</td>
</tr>
<tr>
<td>PHYS 480</td>
<td>Lab Experience in Physical Science (3)</td>
</tr>
</tbody>
</table>

**Block I (choose 12 credits)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EEC 312</td>
<td>Literacy Field Experience (1)</td>
</tr>
<tr>
<td>EEC 325</td>
<td>Classroom Management I (1)</td>
</tr>
<tr>
<td>EEC 355</td>
<td>Assessment in the Elementary School (3)</td>
</tr>
<tr>
<td>EEC 412</td>
<td>Kindergarten Methods and Materials (3)</td>
</tr>
<tr>
<td>EEC 422</td>
<td>Reading Fundamentals (4)</td>
</tr>
</tbody>
</table>

**Block II (choose 15 credits)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EEC 320</td>
<td>Social Studies in Elementary School (3)</td>
</tr>
<tr>
<td>EEC 322</td>
<td>Science/Health in the Elementary School (3)</td>
</tr>
<tr>
<td>EEC 323</td>
<td>Block 2 Field Experience (1)</td>
</tr>
<tr>
<td>EEC 324</td>
<td>Teaching Elementary School Mathematics (3)</td>
</tr>
<tr>
<td>EEC 326</td>
<td>Classroom Management II (1)</td>
</tr>
<tr>
<td>EEC 334</td>
<td>Reading and Language Arts Methods (4)</td>
</tr>
</tbody>
</table>

**Block III (choose 12 credits)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EEC 421</td>
<td>Reading Interventions (4)</td>
</tr>
<tr>
<td>EEC 423</td>
<td>Field Experience in Reading (1)</td>
</tr>
<tr>
<td>EEC 424</td>
<td>Special Education and Behavioral Needs in Elementary Education (3)</td>
</tr>
<tr>
<td>ENG 491</td>
<td>Teaching English Language Learners in the Mainstream Classroom (4)</td>
</tr>
</tbody>
</table>

**Block IV (choose 12 credits)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EEC 473</td>
<td>Student Teaching Elementary (12)</td>
</tr>
</tbody>
</table>

**FIELD EXPERIENCES.** A major component of professional education coursework involves field experiences in area schools. These experiences are sequential in development, time commitment, and skills practice. Field experiences are required for EEC 215 and EEC 222W. During blocks students will have extensive field experience, Monday through Friday. Multiple methods of assessment are used to document competencies. These methods include direct observations of teaching activities by public school and University faculty, the use of videotaped lessons and activities for self-assessment, use of logs, participation in on-line activities, and participation in activities reflective of the professional responsibilities of teachers.

The successful completion of each clinical experience is necessary for progression in the program. All field placements are initiated by the Office of Field Experience.

**Background Checks.** All field placements are initiated by the Office of Field Experience. Students involved in any field experience need to undergo a national criminal background check prior to admittance to professional education and prior to student teaching. Students are responsible for the fees associated with the background checks. This information is provided to districts for their determination of suitability for placement. The Office of Field Experience coordinates the background check process.

**Middle School Math Minor**

**Minor Core**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EEC 342</td>
<td>Teaching Science, Technology and Social Studies in the Middle School (2)</td>
</tr>
<tr>
<td>EEC 410</td>
<td>Philosophy &amp; Practices in the Middle School (3)</td>
</tr>
<tr>
<td>EEC 428</td>
<td>Teaching Reading and Writing in the Content Areas (3)</td>
</tr>
<tr>
<td>EEC 494</td>
<td>Student Teaching Middle School (4)</td>
</tr>
<tr>
<td>MATH 112</td>
<td>College Algebra (4)</td>
</tr>
<tr>
<td>MATH 181</td>
<td>Intuitive Calculus (3)</td>
</tr>
<tr>
<td>MATH 203</td>
<td>Elements of Math III (3)</td>
</tr>
<tr>
<td>STAT 154</td>
<td>Elementary Statistics (3)</td>
</tr>
</tbody>
</table>
Elementary Education continued

Middle School Science Minor

| Minor Core | \(101\) Introduction to Astronomy (3) |
| BIOL 100 | Our Natural World (4) |
| CHEM 201 | General Chemistry I (5) |
| EEC 342 | Teaching Science, Technology and Social Studies in the Middle School (2) |
| EEC 410 | Philosophy & Practices in the Middle School (3) |
| EEC 428 | Teaching Reading and Writing in the Content Areas (3) |
| EEC 494 | Student Teaching Middle School (4) |
| GEOL 121 | Physical Geology (4) |
| GEOL 310 | Earth and Space Systems (3) |

Middle School Communication Arts & Literature Minor

| Minor Core | EEC 410 Philosophy & Practices in the Middle School (3) |
| EEC 428 | Teaching Reading and Writing in the Content Areas (3) |
| EEC 494 | Student Teaching Middle School (4) |
| ENG 242W | Introduction To Creative Writing (4) |
| ENG 285 | Practical Grammar (2) |
| ENG 425 | Topics in Children’s Literature (2-4) |
| ENG 464 | Teaching Literature in the Middle School (3) |

Modern Language: French (15 credits)

Pre-requisites:
1. FREN 101, FREN 102, FREN 201, FREN 202 or equivalent. Students may demonstrate their language proficiency level through coursework or through credit by examination. Credit by examination for FREN 101, FREN 102, FREN 201, and FREN 202 can be arranged with a faculty member in the French program.
2. Students must demonstrate a level of Intermediate-Mid on the Proficiency Interview before they are admitted to WLC 462 and WLC 463. Contact the Department of World Languages & Cultures or a member of the French faculty for details.

Required Language Courses (11-12 credits)
Language credits may be completed on the Minnesota State Mankato campus or, in part, while on the Minnesota State Mankato program in La Rochelle, France.

Minnesota State Mankato Campus

| FREN 302W | Composition (2-4) |
| FREN 305 | France Today (1-4) OR FREN 402 | French Civilization (3-4) |
| FREN 323 | French Phonetics and Applied Linguistics (2-4) |
| FREN 366 | Oral Communication (1-3) |

Minnesota State Mankato in La Rochelle, France

| FREN 315 | Composition (1-3) |
| FREN 316 | Conversation (1-3) |
| FREN 317 | Modern France (1-3) |

Required Methods (4 credits)

WLC 462 | FLES Methods (3) |
WLC 463 | Applied FLES Methods (1) |

Required Cultural Experience. Students must demonstrate that they have had firsthand experience with the culture(s) represented by the French language. The La Rochelle program provides students with this firsthand experience. When study-abroad is not possible for students, Elementary Education students will need to conduct their practicum in a school setting and interact with a community that has a significant number of French speakers.

Students who complete the “Specialization” meet the MN BOT requirements for World Language Teachers in French at the K-8 level.

Modern Language: German (15 credits)

Pre-requisites:
1. GER 101, GER 102, GER 201, GER 202 or equivalent. Students may demonstrate their language proficiency level through coursework or through credit by examination. Credit by exam for GER 101, GER 102, GER 201, GER 202 can be arranged with a faculty member in the German program.
2. Students must demonstrate a level of Intermediate-Mid on the Proficiency Interview before they will be admitted to WLC 462 and WLC 463. Contact the Department of World Languages & Cultures for details at 507-389-2116.

Required Language Courses (11-12 credits)
Language credit may be completed on Minnesota State Mankato campus or may be transferred from a study abroad experience with prior approval by the German program. The following courses are offered on the Minnesota State Mankato campus.

| GER 340 | Topics in Language (1-4 credits) |
| GER 341 | Composition and Conversation (4 credits) |
| GER 343 | German Civilization (1-4 credits) |

Required Methods

WLC 462 | FLES Methods (3) |
WLC 463 | Applied FLES Methods (1) |

Required Cultural Experience. Students must demonstrate that they have had firsthand experience with the culture(s) represented by the Spanish language. Study abroad provides students with this firsthand experience. When study-abroad is not possible for the student, Elementary and Early Childhood students will need to conduct their practicum in a school setting and interact with a community that has a significant number of heritage Spanish speakers.

Students who complete the “Specialization” meet the MN BOT requirements for World Language Teachers in Spanish at the K-8 level.

Modern Language: Spanish (15 credits)

Pre-requisites:
1. SPAN 101, SPAN 102, SPAN 201, SPAN 202, or equivalent. Students may demonstrate their language proficiency level through coursework or through credit by examination. Credit by exam for SPAN 101, SPAN 102, SPAN 201, SPAN 202 is conducted one time each Fall and Spring semester. Contact the Department of World Languages & Cultures for details at 507-389-2116.
2. Students must demonstrate a level of Intermediate-Mid on the Proficiency Interview before they will be admitted to WLC 462 and WLC 463. Contact the Department of World Languages & Cultures for details at 507-389-2116.

Required Language Courses (11-12 credits)
Language credits may be completed on Minnesota State Mankato campus or while on Minnesota State Mankato program in Mexico.

Minnesota State Mankato Campus

| SPAN 310 | Advanced Conversation and Composition (1-4) |
| SPAN 356 | Latin American Civilization (4) |
| SPAN 365 | Selected Readings (1-4) |

Minnesota State Mankato in Mexico campus

| SPAN 394 | Supervised Study in Mexico: Advanced Spanish (1-6) |
| SPAN 494 | Supervised Study in Mexico: Themes in Hispanic Culture (1-6) |
| SPAN 494 | Supervised Study in Mexico: Themes in Spanish American Literature (1-6) |

Required Methods

WLC 462 | FLES Methods (3) |
WLC 463 | Applied FLES Methods (1) |

Required Cultural Experience. Students must demonstrate that they have had firsthand experience with the culture(s) represented by the Spanish language. Study abroad provides students with this firsthand experience. When study-abroad is not possible for the student, Elementary and Early Childhood students will need to conduct their practicum in a school setting and interact with a community that has a significant number of heritage Spanish speakers.

Students who complete the “Specialization” meet the MN BOT requirements for World Language Teachers in Spanish at the K-8 level.

Elementary Education STEM Certificate
The Elementary Education STEM Certificate will provide teacher candidates with preparation needed to become effective STEM teachers.
Major Emphasis: Elementary Education STEM Certificate

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Prerequisites</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 480</td>
<td>Biological Laboratory Experiences for Elementary Teachers</td>
<td>3</td>
<td>EEC 280, EEC 344</td>
<td>Variable</td>
</tr>
<tr>
<td>EEC 280</td>
<td>Engineering for Elementary Teachers</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EEC 344</td>
<td>Educational Technology-STEM</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EEC 360</td>
<td>Special Topics: STEM for Elementary Teachers</td>
<td>1</td>
<td>EEC 280</td>
<td></td>
</tr>
<tr>
<td>EEC 408</td>
<td>Integrating Science, Technology, Engineering, and Math for Elementary Teachers</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EEC 429</td>
<td>Field Experience in Reading and STEM</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MATH 203</td>
<td>Elements of Math III</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PHYS 480</td>
<td>Lab Experiences in Physical Science</td>
<td>3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

COURSE DESCRIPTIONS

ELEMENTARY EDUCATION

EEC 092 (2) Reading Strategies
This course is designed to assist students in the development of specific reading strategies necessary for success with the literacy demands of the university classroom and beyond.

Fall, Spring

EEC 200 (3) Early Clinical Experience: Elementary School
A first course for elementary education majors. Experience in elementary classrooms, understanding children as learners, levels of instruction, general methods, and the teaching role.

Fall, Spring

EEC 205 (3) Service Learning: Society and the Environment
Community-based field experience to increase understanding for elementary education teachers about today's complex environmental challenges. Students examine the interrelatedness of human society and the natural environment through a service learning experience at an area public school.

GE-10

EEC 210 (1-4) Seminar
An early course for elementary education majors. Exploration of the career field, introduction to the role of standards in education, overview of general methodology for the elementary classroom.

Variable

EEC 215 (4) Introduction to Educational Psychology and Instruction in the Elementary
This course provides students opportunities to: 1, understand the theories and contributions of major educational psychologist and theorists; 2, develop and demonstrate skills in educational technologies; 3, develop context for the knowledge and skills described above through activities/field experience.

Fall, Spring

EEC 220 (1-4) Field Study
This experience is designed jointly between student, advisor and a classroom teacher for the student to gain insight into the workings of the elementary classroom.

Variable

EEC 222W (3) Human Relations in a Multicultural Society
Study of interpersonal skills, motivation and group skills. Applied to educational settings. Meets State of Minnesota human relations requirement for teacher licensure.

Fall, Spring

WI, GE-7, GE-11

Diverse Cultures - Gold

EEC 225 (2) Technology Applications in Education
Provides the necessary knowledge base and instructional applications for using technology in the classroom.

EEC 230 (1-4) Individual Study
An experience/project designed by the student and advisor to provide for further study of a topic or component within the realm of elementary education. Could be exploratory in nature.

Variable

EEC 235 (1-4) Independent Study
Student directed learning; project jointly determined between student and advisor.

Variable

EEC 240 (1-4) Research
An opportunity to truly research an area within elementary education to provide a more in depth understanding.

Variable

EEC 250 (1-4) Internship
An opportunity to work in an elementary classroom under the direction of the classroom teacher.

Variable

EEC 280 (3) Engineering for Elementary Teachers
This course provides hands-on experiences through which students learn the basics of engineering. Topics include the engineering design process, reverse engineering, and engineering fields/professions. The course focuses on the engineering strand of the K-6 Minnesota State Science Standards.

Summer

EEC 300 (1-4) Seminar: Children’s Literature
Introduction to children’s literature, both current and classic works. Exploration of authors, genres, and illustrations. Selection, evaluation, and use with K-6 children.

Variable

EEC 301 (1-2) September School Experience

EEC 302 (1) Extended School Experience
Individually-designed field experience in an elementary education classroom. Variable credits for 30 hours of practical experience in consultation with academic advisor and cooperating classroom teachers.

EEC 303 (1) Classroom Methods
Presentation and experience of creative, active learning methods for teaching in the elementary education classroom.

EEC 310 (1-4) Individual Studies: Health for Elementary Teachers
The course is designed to prepare the elementary classroom teacher with methods and materials for teaching health.

Variable

EEC 315 (1-4) Individual Study: Drug/Alcohol Education
This is a course jointly designed by the student and advisor to address the State of Minnesota requirements concerning drug/alcohol education for licensure.

Variable

EEC 316 (1-4) Field Study: Math for Elementary Students
The purpose of this course is to prepare elementary level mathematics teachers to use appropriate content, materials, and methods in teaching.

Variable

EEC 317 (1-4) Field Study: Math Grades 1-6
This course is designed to provide students with the necessary math content for successful math instruction in the elementary classroom.

Variable

EEC 318 (1-4) Field Studies: Math Grades 7-8
This course is designed to provide math content to assist the middle school level math educator.

Variable

EEC 320 (3) Social Studies in Elementary School
Selection and organization of content, materials, activities, and procedures for the elementary classroom.

Pre: Admission to Professional Education, EEC 333
Coreq: EEC 321, EEC 334, EEC 335, EEC 355

Fall, Spring
EEE 321 (1) Literacy Field Experience
Experiences in elementary classrooms.
Coreq: EEC 320, EEC 334, EEC 355
Fall, Spring

EEE 322 (3) Science/Health in the Elementary School
Designed to help future teachers understand the role of science education in the
school curriculum and to become familiar with some of the trends, issues and
problems associated with it.
Pre: EEC 333
Coreq: EEC 323, EEC 324, EEC 407, EEC 421, EEC 444
Fall, Spring

EEE 323 (1) Block 2 Field Experience
Science/health/math experience in elementary classrooms.
Coreq: EEC 322, EEC 324, EEC 407, EEC 421, EEC 444
Fall, Spring

EEE 324 (3) Teaching Elementary School Mathematics
To prepare elementary level mathematics teachers to use appropriate content,
materials and methods in teaching.
Pre: EEC 320, EEC 333
Coreq: EEC 322, EEC 323, EEC 407, EEC 421
Fall, Spring

EEE 325 (1) Classroom Management I
Basic methods and approaches for organizing the classroom for instruction and
for addressing minor misbehaviors.
Fall, Spring

EEE 330 (1-4) Individual Study: Social Studies in the Elementary School
This course is designed to prepare the elementary classroom teacher to select and
organize content, materials, activities, procedures for effective instruction
in the area of social studies.
Variable

EEE 331 (1-4) Individual Study: History for Elementary Teachers
This course is designed to prepare the elementary classroom teacher with the
necessary content to teach American History.
Variable

EEE 332 (2) Developmental Reading
Principles and organization of the reading program. Instructional materials and
procedures. This course does not meet requirement for elementary education.
Fall

EEE 333 (2) Classroom Learning Theory
Focus on principles of psychology and techniques of learning—behavioristic,
cognitive, and humanistic.
Fall, Spring

EEE 334 (4) Reading and Language Arts Methods
Curriculum and methods for teaching literacy in elementary schools, K-6.
Pre: EEC 333
Coreq: EEC 320, EEC 321, EEC 355
Fall, Spring

EEE 336 (1-4) Individual Study: Geography for Elementary Teachers
This course is designed to prepare students with the necessary content knowledge
to teach geography in the elementary classroom.
Variable

EEE 340 (1-4) Research: Science Elementary Teaching
This course is designed to prepare the elementary classroom teacher to use ap-
propriate content, materials, and methods in teaching.
Variable

EEE 341 (1-4) Experiences in Biology for Elementary Teachers
This course is designed to provide students with a variety of experiences within
the biological science realm to apply in the elementary classroom.
Pre: BIOL 100
Variable

EEE 342 (2) Teaching Science, Technology and Social Studies in the Middle
School
Project-based interdisciplinary instruction, infusing technology in middle school
mathematics, social studies, and science classrooms.
Fall, Spring

EEE 343 (1-4) Experiences in Physics for Elementary Teachers
This course is designed to provide the student with a variety of experiences within
the physical science realm to apply in the elementary classroom.
Pre: PHYS 101
Variable

EEE 344 (1-4) Educational Technology-STEM
Elementary education teacher candidates will study the technology skills needed
in order to become effective STEM teachers.
Variable

EEE 350 (1-4) Internship: Trends/Issues in Education
An opportunity to explore in an extended manner many of the current trends and
issues within the elementary school setting to gain a more in-depth understanding.
Variable

EEE 352 (2) Reading in the Middle School
Development and definition of literacy in the middle school.
Pre: EEC 333
Variable

EEE 355 (3) Assessment in the Elementary School
Students will develop the knowledge they need to understand the difference be-
tween assessment and evaluation; what validity, reliability and bias mean; the uses,
advantages and limitations of different types of assessments and how to interpret
their results. Students will also design assessments and scoring instruments.
Pre: EEC 333
Coreq: EEC 320, EEC 321, EEC 334, EEC 355
Fall, Spring

EEE 360 (1) Special Topics: STEM for Elementary Teachers
This course provides students with familiarity in regard to emerging topics of
importance in elementary STEM education.
Variable

EEE 368 (4) Preprimary Methods and Materials
Instructional strategies, theories of curriculum and development, integrated cur-
riculum for 3, 4, and 5 year olds.
Coreq: EEC 369
Fall, Spring

EEE 369 (1) Preprimary Field Experience
Clinical experience to accompany EEC 368.
Coreq: EEC 368
Fall, Spring

EEE 400 (1-4) Seminar: Music Fundamentals
To provide the background content necessary for the elementary classroom
teacher.
Variable

EEE 401 (1-4) Seminar: Music Elementary Teaching
To provide the methods and materials necessary to teach music in the elementary
classroom.

EEE 402 (3) Introduction to Teaching the LEP Student
For teachers of students whose dominant language is other than English.
Variable

EEE 405 (1-4) Individual Studies: Art for Elementary Teachers
This course is designed to provide necessary methods and materials for use in
teaching art in the elementary classroom.
Variable
EEC 408 (3) Integrating Science, Technology, Engineering, and Math for Elementary Teachers
In this pedagogy course, elementary teachers will learn to integrate the four disciplines of STEM: science, technology, engineering, and math.
Pre: EEC 280
Variable

EEC 410 (3) Philosophy & Practices in the Middle School
The middle school concept, curriculum, and teaching methods.
Pre: EEC 333
Fall, Spring

EEC 412 (3) Kindergarten Methods and Materials
Instructional strategies, theories of curriculum and development, integrated curriculum for kindergarten children.
Coreq: EEC 413 for early childhood education major only.
Fall, Spring

EEC 413 (1) Kindergarten Methods and Materials: Lab
Clinical experience to accompany EEC 412.
Coreq: EEC 413 for early childhood education majors only.
Fall

EEC 414 (2-4) Diagnosis and Corrective Instruction in Elementary Mathematics
Diagnostic teaching, evaluating deficiencies, skill analysis, use of case studies and tools of diagnosis.
Pre: EEC 324
Variable

EEC 415 (1-4) Field Study: Physical Education for Elementary Teachers
This course is designed to prepare the elementary classroom teacher with methods and materials for teaching physical education.
Variable

EEC 417 (3) Teaching Reading to ESL Students
This course presents the theoretical base for the reading process, strategies for vocabulary development, and methods for content area learning as applied to second language learners.
Spring

EEC 418 (2) Elementary School Science Activities
Identification of appropriate science equipment, process skills, concepts and instructional attitudes for science in the elementary school.
Pre: EEC 322
Variable

EEC 420 (3) Reading Difficulties
Foundation level of knowledge concerning the characteristics, causes, diagnosis and treatment of reading difficulties.
Pre: EEC 332 or EEC 334
Variable

EEC 421 (4) Reading Interventions
Assessment and strategies for helping struggling readers and English language learners be successful with text. Provides strategies for assisting all students in comprehending content topics through reading and writing.
Coreq: EEC 322, EEC 323, EEC 324, EEC 407, EEC 444
Fall, Spring

EEC 422 (4) Reading Fundamentals
This course explores young children’s (birth to age 8) development of emergent literacy skills related to reading, writing, visual representation, speaking, listening, and viewing. The role of parents and early childhood learning environments are included. Observation, assessment, and strategies to promote emergent literacy are discussed. The use of appropriate children’s literature is promoted.
Fall, Spring

EEC 423 (1) Field Experience in Reading
A field experience focused on diagnosis and remediation of the struggling reader.
Fall, Spring

EEC 424 (3) Special Education and Behavioral Needs in Elementary Education
Provides elementary education majors with information about special needs students in the regular classroom. Includes strategies for effectively teaching and managing behavior of these students.
Fall, Spring

EEC 425 (1-4) Individual Study: Reading for Elementary
This course is designed to prepare the elementary classroom teacher with the methods and materials for teaching reading to the K-6 student.
Variable

EEC 426 (1-4) Research: Utilizing Media for Teaching
This course is designed to prepare the elementary classroom teacher to use media effectively for instruction.
Variable

EEC 428 (3) Teaching Reading and Writing in the Content Areas
Presents strategies for teaching reading and writing knowledge, attitudes and skills in the various teaching content areas.
Fall

EEC 429 (1) Field Experience in Reading and STEM
Field experience focusing on the struggling reader and instruction in an integrated approach to teaching science, technology, engineering, and math (STEM).
Fall, Spring
Coreq: EEC 421, EEC 424, EEC 491

EEC 430 (2) The Elementary Classroom
Historical foundations, influencing factors, issues. Projects in curricular organization. Deals with educational values. Awareness of current elementary school issues.
Pre: Admission to Professional Education
Variable

EEC 443 (1) Primary Grade Mathematics and Science Lab
Clinical field experience to accompany EEC 442. Students will observe and teach primary age children. Requires 30 contact hours in an primary grade classroom.
Pre: EEC 370 and EEC 473, and admission to student teaching
Full responsibility of classroom with university supervision.
Pre: EEC 370 and EEC 473, and admission to student teaching
Fall

EEC 445 (1-14) Internship: Elementary Student Teaching
Student teaching in the elementary school. Includes weekly seminar.
Variable

EEC 449 (1) Field Experience in Reading and STEM
Field experience focusing on the struggling reader and instruction in an integrated approach to teaching science, technology, engineering, and math (STEM).
Fall, Spring
Coreq: EEC 421, EEC 424, EEC 491

EEC 450 (1-14) Internship: Elementary Student Teaching
Student teaching in the elementary school. Includes weekly seminar.
Variable

EEC 451 (2) Middle School Experience
Middle school visitations, observations, participation; understanding characteristics of students.
Variable

EEC 471 (6) Kindergarten Student Teaching and Seminar
Full responsibility of classroom with university supervision.
Pre: EEC 370 and EEC 473, and admission to student teaching
Fall, Spring

EEC 472 (11) Student Teaching: Moderately/Severely Mentally Handicapped
Student teaching in special education. (TMH)
Pre: Special Ed. Methods
Fall, Spring

EEC 473 (12) Student Teaching Elementary
Student teaching in the elementary school. Includes weekly seminar.
Pre: Methods Courses; admission to student teaching.
Coreq: EEC 466, EEC 494
Fall, Spring
The department's undergraduate programs prepare graduates for a wide variety of careers, including middle and high school English teaching, free-lance writing, literary publishing and editing, and technical and professional writing, publishing, and editing. Some English majors choose to go on for master’s or doctoral degrees that will qualify them to teach at the college level. Others find careers in a wide range of fields in business, government, and nonprofit organizations. Still others find that their English degrees are ideal gateways into training for professions such as law.

### POLICIES/INFORMATION

**Admission to Major** is granted by the department. ENG 101: Composition must be completed before admission to the major.

**GPA Policy.** Candidates for the major degrees in the department must maintain a 2.5 grade-point average in all coursework in the major field, in addition to the 2.0 overall average required by the university for graduation. Students must earn a “C” or better for a course to apply to their major or minor.

**P/N Grading Policy.** Courses leading to a major or minor in English may not be taken on a P/N basis, except where P/N is mandatory.

**Supporting Coursework.** Since the different programs in English complement a wide range of different fields of study, English majors should consult regularly with their faculty advisors regarding choice of a minor and other elective courses beyond the major or minor. In consultation with faculty advisors, students may choose a second major instead of a minor.

**English Majors and Minors.** Students majoring in English may also elect one of the following minors: film studies, linguistics, and technical communication. However, a course used to meet the requirements of an English major, minor, or certificate cannot also be used to meet the requirements of another English major, minor, or certificate. Consequently, because the technical communications programs share so many required courses, students may elect only one of them: BA English Studies Technical Communications Emphasis, BS English Technical Communications Option, the Certificate in Technical Communications, or the Technical Communications Minor.
### ENGLISH BA Program Options

Required for Bachelor of Arts (BA) degree: Language (8 credits)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 275W</td>
<td>Introduction to Literary Studies (4)</td>
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</table>

#### 1. CREATIVE WRITING BA OPTION

**Major Common Core**

<table>
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<tr>
<td>ENG 275W</td>
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<tr>
<td>ENG 320</td>
<td>British Literature to 1785 (4)</td>
</tr>
<tr>
<td>ENG 321</td>
<td>British Literature: 1785 to Present (4)</td>
</tr>
</tbody>
</table>

**American Survey** (choose 4 credits)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>ENG 327</td>
<td>American Literature to 1865 (4)</td>
</tr>
<tr>
<td>ENG 328</td>
<td>American Literature: 1865 to Present (4)</td>
</tr>
</tbody>
</table>

**Major Authors** (choose 4 credits)

ENG 403 must focus on three or fewer authors. Some sections of ENG 449 may be acceptable for this requirement. See program director.

<table>
<thead>
<tr>
<th>Course Code</th>
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</tr>
</thead>
<tbody>
<tr>
<td>ENG 403</td>
<td>Selected Authors (2-4)</td>
</tr>
<tr>
<td>ENG 405</td>
<td>Shakespeare: comedies and histories (2)</td>
</tr>
<tr>
<td>ENG 406</td>
<td>Shakespeare: Tragedies (2)</td>
</tr>
<tr>
<td>ENG 449</td>
<td>Topics in Creative Writing Form and Technique (2-4)</td>
</tr>
</tbody>
</table>

**Creative Writing and Linguistics** (choose 4 credits)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>ENG 381</td>
<td>Introduction to English Linguistics (4)</td>
</tr>
<tr>
<td>FILM 416</td>
<td>Film Theory and Criticism (4)</td>
</tr>
<tr>
<td>ENG 441</td>
<td>Literary Theory and Criticism (4)</td>
</tr>
<tr>
<td>ENG 481</td>
<td>History of the English Language (4)</td>
</tr>
<tr>
<td>ENG 482</td>
<td>English Structures and Pedagogical Grammar (4)</td>
</tr>
</tbody>
</table>

**Major Emphasis:** Required Creative Writing Courses

**Form and Technique** (choose 4 credits)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 448</td>
<td>Contemporary Writers (4)</td>
</tr>
<tr>
<td>ENG 430</td>
<td>Form and Technique in Prose (4)</td>
</tr>
<tr>
<td>ENG 341</td>
<td>Form and Technique in Poetry (4)</td>
</tr>
</tbody>
</table>

**Genre** (choose 12 credits)

Choose two in a primary genre (poetry or prose) and one in a secondary genre (poetry or prose)

<table>
<thead>
<tr>
<th>Course Code</th>
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</tr>
</thead>
<tbody>
<tr>
<td>ENG 342</td>
<td>Beginning Creative Nonfiction Workshop (4)</td>
</tr>
<tr>
<td>ENG 343</td>
<td>Beginning Fiction Workshop (4)</td>
</tr>
<tr>
<td>ENG 344</td>
<td>Beginning Poetry Workshop (4)</td>
</tr>
<tr>
<td>ENG 442</td>
<td>Advanced Creative Nonfiction Workshop (4)</td>
</tr>
<tr>
<td>ENG 443</td>
<td>Advanced Fiction Workshop (4)</td>
</tr>
<tr>
<td>ENG 444</td>
<td>Advanced Poetry Workshop (4)</td>
</tr>
<tr>
<td>ENG 445</td>
<td>Advanced Critical Writing Workshop (4)</td>
</tr>
<tr>
<td>ENG 446</td>
<td>Screenwriting Workshop (4)</td>
</tr>
<tr>
<td>ENG 494</td>
<td>English Workshop (selected sections, 1-6)</td>
</tr>
</tbody>
</table>

**Other Graduation Requirements** - Language (8 credits)

Required Minor: Yes. See faculty advisor.

#### 2. ENGLISH STUDIES BA OPTION

**Major Common Core**

48 total credits required for this degree. If you select 4 credits in the Foundation Category, you must select 40 credits in the Content Areas Category.

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>ENG 275W</td>
<td>Introduction to Literary Studies (4)</td>
</tr>
</tbody>
</table>

**Major Restricted Electives**

**FOUNDATION** (choose 4-8 credits total in the Foundation Category)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 242W</td>
<td>Introduction to Creative Writing (4)</td>
</tr>
<tr>
<td>ENG 381</td>
<td>Introduction to English Linguistics (4)</td>
</tr>
<tr>
<td>ENG 271W</td>
<td>Technical Communication (4)</td>
</tr>
<tr>
<td>ENG 272W</td>
<td>Business Communication (4)</td>
</tr>
</tbody>
</table>

**Creative Writing and Linguistics** (choose 0-8 credits)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 242W</td>
<td>Introduction to Creative Writing (4)</td>
</tr>
<tr>
<td>ENG 381</td>
<td>Introduction to English Linguistics (4)</td>
</tr>
<tr>
<td>ENG 382</td>
<td>Language and Culture in TESL (4)</td>
</tr>
</tbody>
</table>

**Technical Communication** (choose 0-4 credits)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>ENG 271W</td>
<td>Technical Communication (4)</td>
</tr>
<tr>
<td>ENG 272W</td>
<td>Business Communication (4)</td>
</tr>
</tbody>
</table>

**Content-Area Electives** (choose 8-12 credits)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 240</td>
<td>Form and Technique in Prose (4)</td>
</tr>
<tr>
<td>ENG 241</td>
<td>Form and Technique in Poetry (4)</td>
</tr>
<tr>
<td>ENG 342</td>
<td>Beginning Creative Nonfiction Workshop (4)</td>
</tr>
<tr>
<td>ENG 343</td>
<td>Beginning Fiction Workshop (4)</td>
</tr>
<tr>
<td>ENG 344</td>
<td>Beginning Poetry Workshop (4)</td>
</tr>
<tr>
<td>ENG 345</td>
<td>Advanced Creative Nonfiction Workshop (4)</td>
</tr>
<tr>
<td>ENG 346</td>
<td>Advanced Fiction Workshop (4)</td>
</tr>
<tr>
<td>ENG 347</td>
<td>Advanced Poetry Workshop (4)</td>
</tr>
<tr>
<td>ENG 348</td>
<td>Advanced Critical Writing Workshop (4)</td>
</tr>
<tr>
<td>ENG 349</td>
<td>Screenwriting Workshop (4)</td>
</tr>
</tbody>
</table>

**Other Graduation Requirements**

Required for Bachelor of Arts (BA) degree: Language (8 credits)

48 total credits required for this degree.

Required Minor: None.

#### 3. ENGLISH LITERATURE BA OPTION

**Major Common Core**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 275W</td>
<td>Introduction to Literary Studies (4)</td>
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</tbody>
</table>

**Major Restricted Electives**

**Surveys** (choose 12-16 credits)

Must include at least one British and one American literature course.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 320</td>
<td>British Literature to 1785 (4)</td>
</tr>
<tr>
<td>ENG 321</td>
<td>British Literature: 1785 to Present (4)</td>
</tr>
<tr>
<td>ENG 327</td>
<td>American Literature to 1865 (4)</td>
</tr>
<tr>
<td>ENG 328</td>
<td>American Literature: 1865 to Present (4)</td>
</tr>
<tr>
<td>ENG 433</td>
<td>Selected Studies in World Literature (4)</td>
</tr>
</tbody>
</table>

**Theory** (choose 4 credits)

<table>
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<th>Course Code</th>
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<tr>
<td>FILM 416</td>
<td>Film Theory and Criticism (4)</td>
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<tr>
<td>ENG 441</td>
<td>Literary Theory and Criticism (4)</td>
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<td>ENG 442</td>
<td>Shakespeare: comedies and histories (2)</td>
</tr>
<tr>
<td>ENG 443</td>
<td>Shakespeare: Tragedies (2)</td>
</tr>
<tr>
<td>ENG 318</td>
<td>Multicultural Literature (2-4)</td>
</tr>
<tr>
<td>ENG 436</td>
<td>Native American Literature (2-4)</td>
</tr>
<tr>
<td>ENG 438</td>
<td>African American Literature (2-4)</td>
</tr>
</tbody>
</table>

**Electives** (10-16 credits). Choose from any 300- or 400-level literature or linguistics course in consultation with an advisor.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 300</td>
<td>Selected in consultation with an advisor.</td>
</tr>
<tr>
<td>FILM 300</td>
<td>Selected in consultation with an advisor.</td>
</tr>
</tbody>
</table>

**Required Minor**

#### Required Minor: None.

**Other Graduation Requirements**

Required for Bachelor of Arts (BA) degree: Language (8 credits)

48 total credits required for this degree.

Required Minor: Yes. See faculty advisor.
ENGLISH CONTINUED

BFA CREATIVE WRITING

Major Common Core

ENG 275W Introduction to Literary Studies (4)
ENG 320 British Literature to 1785 (4)
ENG 321 British Literature: 1785 to Present (4)
ENG 327 American Literature to 1865 (4)
ENG 328 American Literature: 1865 to Present (4)
ENG 340 Form and Technique in Prose (4)
ENG 341 Form and Technique in Poetry (4)
ENG 405 Shakespeare: Comedies and Histories (2)
ENG 406 Shakespeare: Tragedies (2)
ENG 448 Contemporary Writers (4)

Major Restricted Electives
(choose 4 credits)
ENG 433 Selected Studies in World Literature (4)
ENG 435 The World Novel (2-4)
(choose 4 credits)
Emphasis must be on three or fewer authors
ENG 403 Selected Authors (4)
ENG 449 Topics in Creative Writing Form and Technique (2-4)
(choose 4 credits)
ENG 381 Introduction to English Linguistics (4)
FILM 416 Film Theory and Criticism (4)
ENG 441 Literary Theory and Criticism (4)
ENG 481 History of the English Language (4)
ENG 482 English Structure and Pedagogical Grammar (4)
ENG 485 Language and Culture in TESL (4)
(choose 4 credits)
Must be literature, theory, or linguistics course
ENG 300-ENG 499
(choose 12 credits)
ENG 344 or ENG 444 cannot be double-counted
ENG 342 Beginning Creative Nonfiction Workshop (4)
ENG 343 Beginning Fiction Workshop (4)
ENG 344 Beginning Poetry Workshop (4)
ENG 442 Advanced Creative Nonfiction Workshop (4)
ENG 443 Advanced Fiction Workshop (4)
ENG 444 Advanced Poetry Workshop (4)
ENG 446 Screenwriting Workshop (4)
(choose 4 credits)
ENG 344 or ENG 444 cannot be double-counted
ENG 344 Beginning Poetry Workshop (4)
ENG 444 Advanced Poetry Workshop (4)

Other Graduation Requirements

Required for Bachelor of Arts (BA) degree: Language (8 credits)

Required Minor: None.

ENGLISH BS PROGRAM OPTIONS

Degree completion = 120 credits

Choose Communication Arts and Literature or Technical Communication option.
1. Communication Arts and Literature Education
2. Technical Communication

1. COMMUNICATION ARTS AND LITERATURE EDUCATION BS

Required General Education
CMST 102 Public Speaking (3)
CMST 310 Performance of Literature (4)
HLTH 240 Drug Education (3)
KSP 220W Human Relations in a Multicultural Society (3)
MASS 110 Introduction to Mass Media (4)

Literature, Humanities, Film (choose 4 credits)
Choose one course in literature, or in humanities, or in film from the following list.
ENG 110 Introduction to Literature (4)
ENG 112W Introduction to Poetry and Drama (4)

ENG 113W Introduction to Prose Literature (4)
ENG 118 Diverse Cultures in Literature and Film (4)
ENG 125 International Children’s Literature (4)
ENG 146 Perspectives in Literature and Human Diversity (4)
ENG 211W Introduction to Shakespeare (4)
ENG 212W Perspectives in World Literature (4)
ENG 213W Perspectives: Ethics and Civic Responsibility in Literature (4)
ENG 215 Topics in Literature (2-4)
ENG 242W Introduction To Creative Writing (4)

Any 100-200 Film course. Any 100-200 Humanities course.

Major Common Core

Only two credits of CMST 201 are required. Total Major Common Core credits: 38. Total Major Restricted Elective credits: 9. Total credits in program: 47.

CMST 101W Interpersonal Communication (4)
CMST 201 Small Group Communication (2-4)
CMST 215 Effective Listening (2)
CMST 420 Methods: Teaching Communication Arts (2)
CMST 425 Methods: Directing and Coaching Forensics (2)
ENG 273W Introduction to Literary Studies (4)
ENG 285 Practical Grammar (2)
ENG 327 American Literature to 1865 (4)
ENG 328 American Literature: 1865 to the Present (4)
ENG 361 Teaching Literature, Grades 5-12 (4)
ENG 362 Teaching English, Writing, Grades 5-12 (4)
ENG 381 Introduction to English Linguistics (4)

Major Restricted Electives

British Literature (choose 4 credits)
ENG 320 British Literature to 1785 (4)
ENG 321 British Literature: 1785-Present (4)

World Literature (choose 2 credits)
(choose 2 credits)
Only two credits of world literature are required.
ENG 433 Selected Studies in World Literature (4)
ENG 435 The World Novel (2-4)
ENG 461 World Literature for Children and Young Adults (2-4)

Young Adult Literature (choose 3 credits)
(choose 3 credits)
Only three credits of young adult literature are required.
ENG 463 Adolescent Literature (3)
ENG 464 Teaching Literature in the Middle School (3)

Other Graduation Requirements

See the Secondary 5-12 & K-12 Professional Education section of the bulletin for admission requirements for professional education and for a list of required professional education courses. Students will take two credits of general electives to meet the 120-credit degree requirement.

Required Minor: None.

2. TECHNICAL COMMUNICATION BS OPTION

Major Common Core

Required Introductory Course (choose 4 credits)
ENG 271W Technical Communication (4)
ENG 272W Business Communication (4)

Required Courses
ENG 474W Research and Writing Technical Reports (4)
ENG 475W Editing Technical Publications (4)
ENG 498W Internship (3-4)
Documentation (choose 4 credits)
ENG 476 Online Documentation (4)
ENG 477W Technical Documentation, Policies, and Procedures (4)

Major Restricted Electives (18-19 credits)
Major Common Core and Electives must total 37 credits.
ENG 462 Document Design (4)
ENG 466 Usability (4)
ENG 467 International Technical Communications (1-4)
ENG 469 Project Management in Technical Communication (4)
ENGLISH CONTINUED

ENG 471 Visual Technical Communication (4)
ENG 472 Topics in Technical Communication (1-4)
ENG 473 Desktop Publishing (4)
ENG 474W Research and Writing Technical Reports (4)
ENG 476 Online Documentation (4)
ENG 477W Technical Documentation, Policies, and Procedures (4)
ENG 478 Technical and Scientific Literature (4)
ENG 479 Rhetorical Theory Applied to Technical Documents (4)
ENG 480 Proposals (4)
ENG 494 English Workshop (selected sections, 1-6)

Other Graduation Requirements. English Department policy does not permit double-counting of courses for any English major or minor.

Minor. Choose a technical minor from the list below: Automotive Engineering Technology, Civil Engineering, Electronic Engineering Technology, Manufacturing Engineering Technology, Biology, Chemistry, Community Health, Computer Information Science, Computer Technology, Environmental Science, Geography, Geology, Math, Physics, Psychology, or others with approval. Contact your advisor or the program director.

CERTIFICATE IN TECHNICAL COMMUNICATION
This certificate program prepares participants for careers in technical communication, emphasizing current industry practice in the researching, writing, editing, and publishing of print or online technical documents. Required coursework emphasizes the development of student skills in audience analysis, problem solving, and collaboration within the workplace as well as the production of text and graphics for print and online publication. Special topics courses focus on industry practice in standards and documentation, document design, web development, usability testing, international communication, and other topics of importance to technical communicators.

Major Common Core
ENG 471 Visual Technical Communication (4)
ENG 475 Editing Technical Publications (4)
ENG 476 Online Documentation (4)
ENG 477W Technical Documentation, Policies, and Procedures (4)

Major Restricted Electives (choose 12 credits)
ENG 462 Document Design (4)
ENG 466 Usability (4)
ENG 469 Project Management in Technical Communications (4)
ENG 472 Topics in Technical Communication (1-4)
ENG 473 Desktop Publishing (4)
ENG 474W Research and Writing Technical Reports (4)
ENG 476 Online Documentation (4)
ENG 477W Technical Documentation, Policies, and Procedures (4)
ENG 480 Proposals (4)

Other Graduation Requirements
English Department policy does not permit double-counting of courses for any English major or minor.

ENGLISH GENERAL MINOR

Required for Minor (Core 12 credits)
ENG 275W Introduction to Literary Studies (4)
ENG 320 British Literature to 1785 (4)
ENG 321 British Literature: 1785 to Present (4)
ENG 327 American Literature to 1865 (4)
ENG 328 American Literature: 1865 to Present (4)

Required Electives for Minor (8 credits)
Choose 8 credits from any 300 or 400-level English courses (except ENG 325, ENG 362, ENG 463, or ENG 464)

ENGLISH CREATIVE WRITING MINOR

Required for Minor (Core 8 credits)
ENG 342 Beginning Creative Nonfiction Workshop (4)
ENG 343 Beginning Fiction Workshop (4)
ENG 344 Beginning Poetry Workshop (4)
ENG 442 Advanced Creative Nonfiction Workshop (4)
ENG 443 Advanced Fiction Workshop (4)
ENG 444 Advanced Poetry Workshop (4)
ENG 445 Advanced Critical Writing Workshop (4)
ENG 446 Screenwriting Workshop (4)
ENG 494 may be chosen when topic is appropriate.

Required Electives for Minor
Choose an additional 8 credits from any 300/400 English courses (except ENG 362, ENG 470)

LINGUISTICS MINOR

Required for Minor
(choose 8 credits from the following)
ENG 381 Introduction to English Linguistics (4)
ENG 482 English Structure and Pedagogical Grammar (4)
ENG 485 Language and Culture in TESL (4)
ENG 494 English Workshop (selected sections, 1-6)
ENG 495 Special Studies (1-4)
ENG 494 or ENG 495 may be chosen when topic is appropriate (see advisor).

Electives (0-8 credits)
(choose up to 8 credits from the following courses)
CDIS 201 Observation of Human Communication (3)
CDIS 290 Introduction to Communication Disorders (3)
CDIS 312 Speech and Language Development (3)
CDIS 392 Phonetics (3)
CDIS 402 Child Language Disorders (2)
CDIS 403 Child Language Disorders Lab (1)
CDIS 438 Speech Sound Disorders (3)
GER 445 Topics in German Linguistics (1-4)
FREN 323 French Phonetics & Applied Linguistics (2-4)
FREN 404 French Syntax (2-4)
SPAN 301 Topics in Language (1-4)
SPAN 401 Topics in Linguistics (1-4)

TEACHING ENGLISH AS A SECOND LANGUAGE, NON-LICENSED MINOR

Minor Core
ENG 381 Introduction to English Linguistics (4)
ENG 482 English Structure and Pedagogical Grammar (4)
ENG 484 Pedagogical Grammar & Academic English (4)
ENG 485 Language and Culture in TESL (4)
ENG 486 Theories of Teaching ESL (4)
ENG 487 Methods of Teaching ESL (4)

TEACHING ENGLISH AS A SECOND LANGUAGE MINOR

Minor Core
ENG 381 Introduction to English Linguistics (4)
ENG 482 English Structure and Pedagogical Grammar (4)
ENG 484 Pedagogical Grammar & Academic English (4)
ENG 485 Language and Culture in TESL (4)
ENG 487 Methods of Teaching ESL (4)
ENG 489 Policies and Programs in ESL (4)

Required for Minor (Required for a state of Minnesota teaching license, an additional 30 credits of professional education courses.). See the SECOND-ARY 5-12 AND K-12 PROFESSIONAL EDUCATION section for admission requirements to Professional Education and a list of required professional education courses. This 30 credit requirement includes 11 credits of student teaching. Students must satisfactorily complete a student teaching component of full-day experiences for one academic semester, or its equivalent, including both elementary and secondary education levels with students of limited English proficiency.

TECHNICAL COMMUNICATION MINOR

Minor Core
Required introductory course for minor (choose 4 credits)
ENG 271W Technical Communication (4)
ENG 272W Business Communication (4)

Required advanced course for minor (choose 4 credits)
ENG 474W Research and Writing Technical Reports (4)
ENG 475 Editing Technical Publications (4)
ENG 476 Online Documentation (4)
ENG 477W Technical Documentation, Policies, and Procedures (4)

Electives for Minor
(Choose 8 credits, may not include the advanced course chosen above.)
ENG 462 Document Design (4)
ENG 466 Usability (4)
ENG 469 Project Management in Technical Communication (4)
ENG 471 Visual Technical Communication (4)
ENG 472 Topics in Technical Communication (1-4)
ENG 473 Desktop Publishing (4)
ENG 474W Research and Writing Technical Reports (4)
ENG 475 Editing Technical Publications (4)
ENG 476 Online Documentation (4)
ENG 477W Technical Documentation, Policies, and Procedures (4)
ENG 478 Technical and Scientific Literature (4)
ENG 479 Rhetorical Theory Applied to Technical Documents (4)
ENG 480 Proposals (4)

INTERDISCIPLINARY MINOR IN COMMUNICATIONS
This interdisciplinary minor is for students who wish to enhance their communication
skills for use in business and other professional settings. Students completing
this minor will develop an understanding of contexts and rhetorical strategies for
oral and written communication among professionals. Students will also develop
their own ability to communicate through written texts, oral communication, and
electronic formats. These skills are highly desired by employers in a wide range
of business, government, and nonprofit organizations. Students may major in any
of the programs affiliated with this minor, but the courses taken for the minor
will not count toward the major. Students must earn a “C” or better in English
courses in order to apply them to the minor.

Minor Core
CMST 212 Professional Communication & Interviewing (4)
CMST 412 Organizational Communication (4)
ENG 271W Technical Communication (4)
ENG 474 Research and Writing Technical Reports (4)

Minor Electives
Choose 11 credits from the following programs. At least one course must be at the
3/400 level.
CMST 22S Communicating With/Through Technology (4)
CMST 30S Communication & Community (4)
CMST 33S Advanced Public Communication (4)
CMST 44S Conflict Management (4)
ECON 201 Principles of Microeconomics (3)
ECON 202 Principles of Microeconomics (3)
ENG 301W Advanced Writing (4)
ENG 454 Persuasive Writing on Public Issues (4)
ENG 455 Advanced Writing Workshop (4)
ENG 471 Visual Technical Communication (4)
ENG 473 Desktop Publishing (4)
ENG 474 Research and Writing Technical Reports (4)
ENG 475 Editing Technical Publications (4)
IT 100 Introduction to Computing and Applications (4)
RPLS 377 Public Relations (3)
RPLS 465 Event Management (3)
URBS 150 Sustainable Communities (3)
URBS 230 Community Leadership (3)
URBS 412 Public Information and Involvement (3)

WRITING STUDIES MINOR

Minor Common Core
ENG 201W Intermediate Writing (4)
ENG 301W Advanced Writing (4)

Minor Electives
(choose 12 credits from the following courses)
ENG 285 Practical Grammar (2)
ENG 430 Independent Reading (1-4)
ENG 442 Advanced Creative Nonfiction Workshop (4)
ENG 453 Topics in Rhetoric and Composition (4)
ENG 454 Persuasive Writing on Public Issues (4)
ENG 455 Advanced Writing Workshop (4)

COURSE DESCRIPTIONS
ENG 098 (2-4) Integrated Reading and Writing (P/N Only)
This course offers instruction in, and practice with, critical reading and writing
strategies. Credit does not apply toward graduation. P/N only.

ENG 100 (4) Introduction to Composition
A writing course that progresses from personal writing to writing about readings
and the use of sources. Does not fulfill general education requirement 1A.

ENG 101 (4) Composition
This course helps students develop a flexible writing process, practice rhetorical
awareness, read critically to support their writing, research effectively, represent oth-
ers’ ideas in multiple ways, reflect on their writing practices, and polish their work.
GE-1A

ENG 103 (4) Stretch Composition I
This course helps students develop a flexible writing process, increase their
rhetorical awareness, acquire critical reading skills to support their writing,
represent others’ ideas in multiple ways, reflect on their writing development,
and polish their work.
Fall

ENG 104 (4) Stretch Composition II
This course helps students gain greater facility with the writing process, expand
their rhetorical awareness, research effectively, compose argument-driven texts,
represent others’ ideas in multiple ways, reflect on their writing development,
and polish their work.
Spring
GE-1A

ENG 107 (1-4) English Writing for Academic Purposes
This writing course focuses on the processes and products of writing for academic
purposes in the American context, with particular interest in the structural varia-
tion among academic genres. This course is intended for non-native speakers of
English. This course does not meet General Education requirements.
Pre: TOEFL IBT score of 89 or above, or completed ESL 136 with a “C” or
higher, or the equivalent.
Fall (On-Demand), Spring (On-Demand), Summer (On-Demand)

ENG 110 (4) Introduction to Literature
Study and analysis of elements of prose, poetry and drama in English from
earlier periods through contemporary. Emphasizes critical reading of literature.
May include such genres as short story, novel, memoir, nonfiction, biography,
autobiography, poem, play, screenplay.
GE-6

ENG 112W (4) Introduction to Poetry and Drama
Study and analysis of elements of poetic and dramatic literature in English,
including translations, from earlier periods through contemporary. Emphasizes
critical reading of and writing about literature.
Pre: ENG 101
WI, GE-6

ENG 113W (4) Introduction to Prose Literature
Study and analysis of prose literature in English from earlier periods through
contemporary. Works will be chosen from the following forms: short stories,
short stories, novellas, novels, memoirs, autobiographies, and other long forms.
Emphasizes critical reading of and writing about literature.
Pre: ENG 101
WI, GE-6
ENG 118 (4) Diverse Cultures in Literature and Film
Students in this course learn about diverse peoples and societies by reading and writing about novels, non-fiction, poetry, and/or films.
Variable
GE-6, GE-7
Diverse Cultures - Purple

ENG 125 (4) International Children’s Literature
The course purpose is to increase students’ knowledge of international children’s literature that is written in English or translated into English. Students will be introduced to individual books, authors, and methods of responding to literature. This course studies children’s literature set in countries such as Afghanistan, WWII Germany, and the Dominican Republic.
Variable
GE-6, GE-8
Diverse Cultures - Purple

ENG 146 (4) Introduction to Shakespeare
This course will introduce students to Shakespeare’s plays (histories, tragedies, and comedies) and sonnets. Students will read, analyze, and develop interpretations of these works, learning about Shakespeare’s language, historical situations, and world views.
Variable
GE-6, GE-8

ENG 201W (4) Intermediate Writing
Work on developing mastery of the rhetorical principles of planning, executing, and revising written texts. Emphasis on strengthening analytical writing, both expository and argumentative; valuable for writing on the job.
Pre: ENG 101
WI, GE-2

ENG 211W (4) Perspectives in Literature and Human Diversity
Courses will explore various specialized topics in literature to increase understanding of literary contributions made by under-represented peoples, to develop critical thinking, reading, and writing skills, and to increase appreciation of the diversity of human experience. Typical courses include: Multicultural Literature, Women’s Literature. May be repeated as topics change.
Pre: ENG 101
WI, GE-6, GE-7
Diverse Cultures - Purple

ENG 212W (4) Perspectives in World Literature
Courses will introduce students to works of literature from a variety of world cultures. Designed to increase knowledge of world cultures and appreciation and understanding of cultural differences in representation, and in seeing, believing, and being. Emphasizes critical thinking, reading, and writing. May be repeated with different topics.
Pre: ENG 101
WI, GE-6, GE-8

ENG 213W (4) Perspectives: Ethics and Civic Responsibility
Courses will focus on some characteristic ways in which literature addresses and explores the ethical dimensions of citizenship and the relationships between works and their cultural contexts. Emphasizes critical thinking, reading and writing. Typical courses include: War and Peace; Utopias and Dystopias. May be repeated as topics change.
Pre: ENG 101
WI, GE-6, GE-9

ENG 215 (2-4) Topics in Literature
Course will explore specialized topics in literature; may be repeated under a different topic.
GE-6

ENG 219 (1) Visiting Writers Series
This course operates as an independent study of those writers visiting campus for the Good Thunder Reading Series.

ENG 220W (4) Čechov and Chekhov
This course explores the works of Anton Chekhov, including a survey of his life and career, his plays, and a selection of his short stories.
Variable
GE-2, GE-6

ENG 221W (4) Shakespeare's England
This course explores the context of Shakespeare's England, including the political, social, and cultural forces that shaped his work.
Variable
GE-2

ENG 222W (4) Shakespeare's Poetry
This course focuses on the poetry of Shakespeare, including his sonnets and other poems.
Variable
GE-2

ENG 223W (4) Shakespeare's Tragedies
This course examines Shakespeare's tragic plays, including "Romeo and Juliet" and "Hamlet.
Variable
GE-2

ENG 224W (4) Shakespeare's Comedies
This course explores Shakespeare's comedies, including "Much Ado About Nothing" and "Twelfth Night.
Variable
GE-2

ENG 225W (4) Shakespeare's History Plays
This course examines Shakespeare's history plays, including "Henry V" and "Richard III.
Variable
GE-2

ENG 226W (4) Shakespeare's Sonnets
This course focuses on the sonnets of Shakespeare, including their themes and styles.
Variable
GE-2

ENG 227W (4) Shakespeare's Romances
This course explores Shakespeare's romances, including "The Winter's Tale" and "The Two Noble Kinsmen.
Variable
GE-2

ENG 228W (4) Shakespeare's Plays for the Stage
This course examines Shakespeare's plays as performed on the stage, including director's choices and staging techniques.
Variable
GE-2

ENG 229W (4) Shakespeare's Plays for the Screen
This course explores the adaptation of Shakespeare's plays to the screen, including the film industry's impact on Shakespeare's works.
Variable
GE-2

ENG 230W (4) Shakespeare's Tragedies
This course examines Shakespeare's tragedies, including "Romeo and Juliet" and "Hamlet.
Variable
GE-2

ENG 231W (4) Shakespeare's Comedy
This course explores Shakespeare's comedies, including "Much Ado About Nothing" and "Twelfth Night.
Variable
GE-2

ENG 232W (4) Shakespeare's History Plays
This course examines Shakespeare's history plays, including "Henry V" and "Richard III.
Variable
GE-2

ENG 233W (4) Shakespeare's Sonnets
This course focuses on the sonnets of Shakespeare, including their themes and styles.
Variable
GE-2

ENG 234W (4) Shakespeare's Romances
This course explores Shakespeare's romances, including "The Winter's Tale" and "The Two Noble Kinsmen.
Variable
GE-2

ENG 235W (4) Shakespeare's Plays for the Stage
This course examines Shakespeare's plays as performed on the stage, including director's choices and staging techniques.
Variable
GE-2

ENG 236W (4) Shakespeare's Plays for the Screen
This course explores the adaptation of Shakespeare's plays to the screen, including the film industry's impact on Shakespeare's works.
Variable
GE-2

ENG 237W (4) Shakespeare's Tragedies
This course examines Shakespeare's tragedies, including "Romeo and Juliet" and "Hamlet.
Variable
GE-2

ENG 238W (4) Shakespeare's Comedy
This course explores Shakespeare's comedies, including "Much Ado About Nothing" and "Twelfth Night.
Variable
GE-2

ENG 239W (4) Shakespeare's History Plays
This course examines Shakespeare's history plays, including "Henry V" and "Richard III.
Variable
GE-2

ENG 240W (4) Shakespeare's Sonnets
This course focuses on the sonnets of Shakespeare, including their themes and styles.
Variable
GE-2

ENG 241W (4) Shakespeare's Romances
This course explores Shakespeare's romances, including "The Winter's Tale" and "The Two Noble Kinsmen.
Variable
GE-2

ENG 242W (4) Introduction To Creative Writing
An introduction to writing poetry and short prose. This course does not assume previous creative writing experience on the part of the student.
Pre: ENG 101
WI, GE-11

ENG 271W (4) Technical Communication
Introduction to learning the written and oral communication of technical information. Assignments include writing and presenting proposals, reports, and documentation. Emphasis on use of rhetorical analysis, computer applications, collaborative writing, and usability testing to complete technical communication tasks in the workplace.
Pre: ENG 101
WI, GE-2, GE-13

ENG 272W (4) Business Communication
Introduction to business communications. Assignments include writing and presenting proposals, reports, and documentation typical to a business/industry setting. Emphasis on use of rhetorical analysis, software applications, collaboration, and usability testing to complete business communication tasks.
Fall, Spring
WI, GE-2, GE-13

ENG 275W (4) Introduction to Literary Studies
An introduction to literary genres and to the techniques of writing about literature.
Pre: ENG 101
WI

ENG 285 (2) Practical Grammar
A review of traditional grammar designed to prepare students for advanced work in language and grammar. This course will run for a half-semester.

ENG 301W (4) Advanced Writing
Expressive expository and argumentative writing. For anyone interested in developing advanced rhetorical skills such as invention, arrangement, and style in discourse. Especially recommended for students who plan to write as part of their careers or pursue graduate study.
Pre: ENG 101 and permission of instructor
WI, GE-2

ENG 307W (4) Shakespeare's Sonnets
This course focuses on the sonnets of Shakespeare, including their themes and styles.
Variable
GE-2

ENG 308W (4) Shakespeare's Plays for the Stage
This course examines Shakespeare's plays as performed on the stage, including director's choices and staging techniques.
Variable
GE-2

ENG 309W (4) Shakespeare's Plays for the Screen
This course explores the adaptation of Shakespeare's plays to the screen, including the film industry's impact on Shakespeare's works.
Variable
GE-2

ENG 310W (4) Shakespeare's Tragedies
This course examines Shakespeare's tragedies, including "Romeo and Juliet" and "Hamlet.
Variable
GE-2

ENG 311W (4) Shakespeare's Comedy
This course explores Shakespeare's comedies, including "Much Ado About Nothing" and "Twelfth Night.
Variable
GE-2

ENG 312W (4) Shakespeare's History Plays
This course examines Shakespeare's history plays, including "Henry V" and "Richard III.
Variable
GE-2

ENG 313W (4) Shakespeare's Sonnets
This course focuses on the sonnets of Shakespeare, including their themes and styles.
Variable
GE-2

ENG 314W (4) Shakespeare's Romances
This course explores Shakespeare's romances, including "The Winter's Tale" and "The Two Noble Kinsmen.
Variable
GE-2

ENG 315W (4) Shakespeare's Plays for the Stage
This course examines Shakespeare's plays as performed on the stage, including director's choices and staging techniques.
Variable
GE-2

ENG 316W (4) Shakespeare's Plays for the Screen
This course explores the adaptation of Shakespeare's plays to the screen, including the film industry's impact on Shakespeare's works.
Variable
GE-2

ENG 317W (4) Shakespeare's Tragedies
This course examines Shakespeare's tragedies, including "Romeo and Juliet" and "Hamlet.
Variable
GE-2

ENG 318W (4) Shakespeare's Comedy
This course explores Shakespeare's comedies, including "Much Ado About Nothing" and "Twelfth Night.
Variable
GE-2

ENG 319W (4) Shakespeare's History Plays
This course examines Shakespeare's history plays, including "Henry V" and "Richard III.
Variable
GE-2

ENG 320W (4) Shakespeare's Sonnets
This course focuses on the sonnets of Shakespeare, including their themes and styles.
Variable
GE-2

ENG 321W (4) Shakespeare's Romances
This course explores Shakespeare's romances, including "The Winter's Tale" and "The Two Noble Kinsmen.
Variable
GE-2

ENG 325W (4) Shakespeare's Plays for the Stage
This course examines Shakespeare's plays as performed on the stage, including director's choices and staging techniques.
Variable
GE-2

ENG 326W (4) Shakespeare's Plays for the Screen
This course explores the adaptation of Shakespeare's plays to the screen, including the film industry's impact on Shakespeare's works.
Variable
GE-2
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
<th>Meeting Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 327</td>
<td>American Literature to 1865</td>
<td>A survey of American Literature from its beginnings to the end of the Civil War. Pre: ENG 275W</td>
<td>Fall</td>
</tr>
<tr>
<td>ENG 328</td>
<td>American Literature: 1865 to the Present</td>
<td>A survey of American Literature from the end of the Civil War to the present. Pre or Coreq: ENG 275W</td>
<td>Spring</td>
</tr>
<tr>
<td>ENG 340</td>
<td>Form and Technique in Prose</td>
<td>Study of the technical underpinnings of fiction and nonfiction genres.</td>
<td>Fall</td>
</tr>
<tr>
<td>ENG 341</td>
<td>Form and Technique in Poetry</td>
<td>Study of the technical underpinnings of poetry.</td>
<td>Spring</td>
</tr>
<tr>
<td>ENG 342</td>
<td>Beginning Creative Nonfiction Workshop</td>
<td>Introduction to writing personal essays and literary journalism.</td>
<td></td>
</tr>
<tr>
<td>ENG 343</td>
<td>Beginning Fiction Workshop</td>
<td>Introduction to writing short stories.</td>
<td>Variable</td>
</tr>
<tr>
<td>ENG 344</td>
<td>Beginning Poetry Workshop</td>
<td>Introduction to writing poems.</td>
<td>Variable</td>
</tr>
<tr>
<td>ENG 359</td>
<td>Topics and Research</td>
<td>Topics and Research is a variable topics course giving students the opportunity to work closely with a professor to study a specific aspect of English and do research in a specialized area.</td>
<td></td>
</tr>
<tr>
<td>ENG 361</td>
<td>Teaching English: Literature, Grades 5-12</td>
<td>Theory, practice, and materials for teaching English language arts in middle school and high school, with particular attention to literature. Fall (On-Demand), Spring (On-Demand)</td>
<td></td>
</tr>
<tr>
<td>ENG 362</td>
<td>Teaching English: Writing, Grades 5-12</td>
<td>Theory, practice and materials for teaching English language arts in middle school and high school, with particular attention to language and writing.</td>
<td>Fall</td>
</tr>
<tr>
<td>ENG 381</td>
<td>Introduction to English Linguistics</td>
<td>The English language considered structurally (phonology, morphology, syntax, semantics) and sociolinguistically (geographical and social dialects, gender issues, acquisition of first and second language, standard and nonstandard forms).</td>
<td>Fall</td>
</tr>
<tr>
<td>ENG 402</td>
<td>Gender in Literature</td>
<td>Selected topics course on literature by and about women. Diverse Cultures - Purple</td>
<td></td>
</tr>
<tr>
<td>ENG 403</td>
<td>Selected Authors</td>
<td>Content changes. May be repeated.</td>
<td></td>
</tr>
<tr>
<td>ENG 405</td>
<td>Shakespeare: Comedies and Histories</td>
<td>A study of Shakespeare’s comedies and histories. This course will run for a half-semester. Spring</td>
<td>Spring</td>
</tr>
<tr>
<td>ENG 406</td>
<td>Shakespeare: Tragedies</td>
<td>A study of Shakespeare’s tragedies. This course will run for a half-semester. Spring</td>
<td></td>
</tr>
<tr>
<td>ENG 410</td>
<td>21st Century Literature</td>
<td>Study of literature from the 21st century, with an emphasis on how these works reflect contemporary concerns. Pre: ENG 275W</td>
<td>Variable</td>
</tr>
<tr>
<td>ENG 425</td>
<td>Topics in Children’s Literature</td>
<td>Topics have included genres such as fantasy or historical fiction and thematic topics such as survival or journeys. Fall</td>
<td></td>
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<tr>
<td>ENG 426</td>
<td>Selected Periods</td>
<td>Selected periods of literary study.</td>
<td></td>
</tr>
<tr>
<td>ENG 430</td>
<td>Independent Reading</td>
<td>Extensive reading in an area for which the student has had basic preparation. Pre: Consent</td>
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<tr>
<td>ENG 432</td>
<td>Selected Studies in the Novel</td>
<td>Content changes. May be repeated.</td>
<td></td>
</tr>
<tr>
<td>ENG 433</td>
<td>Selected Studies in World Literature</td>
<td>Topics on themes, issues and developments in genres of the literatures of the world. Content changes. May be repeated.</td>
<td></td>
</tr>
<tr>
<td>ENG 435</td>
<td>The World Novel</td>
<td>A study of selected novels from a variety of time periods and cultures, including Eastern and Western Europe, Asia, Africa, and Latin America.</td>
<td></td>
</tr>
<tr>
<td>ENG 436</td>
<td>Native American Literature</td>
<td>This course surveys the earliest Native American literary works, from oral tradition and songs to contemporary works and authors, with a particular emphasis on tribal and cultural contexts that identify these works as Native American. Diverse Cultures - Purple</td>
<td></td>
</tr>
<tr>
<td>ENG 438</td>
<td>African American Literature</td>
<td>This course surveys the earliest African American literary works, including slave narratives, poetry, folklore, and oration, through 20th century movements such as the Jazz Age, Harlem Renaissance, and Black Arts Movement of the 1960s, to contemporary works and authors. Diverse Cultures - Purple</td>
<td></td>
</tr>
<tr>
<td>ENG 441</td>
<td>Literary Theory and Criticism</td>
<td>Theories of literature and its production and use. Pre: 6 semester credits in literature</td>
<td>Variable</td>
</tr>
<tr>
<td>ENG 442</td>
<td>Advanced Creative Nonfiction Workshop</td>
<td>Advanced workshop in writing personal essays and literary journalism. May be repeated. Pre: ENG 340 or ENG 342 ALT-Fall</td>
<td></td>
</tr>
<tr>
<td>ENG 443</td>
<td>Advanced Fiction Workshop</td>
<td>An advanced course in writing short stories and novels. May be repeated. Pre: ENG 340 or ENG 343 ALT-Spring</td>
<td></td>
</tr>
<tr>
<td>ENG 444</td>
<td>Advanced Poetry Workshop</td>
<td>An advanced course in writing poems. May be repeated. Pre: ENG 341 or ENG 344 ALT-Spring</td>
<td></td>
</tr>
<tr>
<td>ENG 445</td>
<td>Advanced Critical Writing Workshop</td>
<td>An advanced course in writing critical essays. May be repeated. Pre: Writing course or consent Variable</td>
<td>Variable</td>
</tr>
<tr>
<td>ENG 446</td>
<td>Screenwriting Workshop</td>
<td>Introduction to writing for the screen. May be repeated. Pre: Writing course or consent</td>
<td>Spring</td>
</tr>
</tbody>
</table>
ENG 448 (4) Contemporary Writers
This course approaches works of fiction, poetry, and creative nonfiction from the past 30 years with a special focus on the craft issues that are central components of each work’s success. English 448 is a required course for BA and BFA majors in creative writing.
Spring
Diverse Cultures - Purple

ENG 449 (2-4) Topics in Creative Writing Form and Technique
Topics in Creative Writing Form and Technique will be a variable-title course that explores special topics relating to the technical mastery of one or more creative genres, or the technical achievement of one or more practitioners. May be repeated with different topics.
Fall, Spring, Summer

ENG 453 (4) Topics in Rhetoric and Composition
Topics in Rhetoric and Composition will be a variable title course that explores special topics relating to the theory, history, and practice of one or more areas within rhetoric and composition.
Pre: ENG 201W, ENG 301W
Variable

ENG 454 (4) Persuasive Writing on Public Issues
Advanced writing course emphasizing major contemporary public issues. Practice in and study of: the logic by which writers construct arguments; the various means that writers use to persuade an audience; the conventions of evidence, claims and arguments in persuasive discourses.
Pre: ENG 201W, ENG 301W
Variable

ENG 455 (4) Advanced Writing Workshop
Advanced interdisciplinary writing emphasizes critical reading and thinking, argumentative writing, library research, and documentation of sources in an academic setting. Practice and study of selected rhetorics of inquiry employed in academic disciplines preparing students for different systems of writing.
Pre: ENG 201W, ENG 301W
Variable

ENG 461 (2-4) World Literature for Children and Young Adults
Selected works of literature for students in grades 5-12 from a variety of countries and cultures.
Fall (On-Demand), Spring (On-Demand), Summer (On-Demand)

ENG 462 (4) Document Design
Addresses theories of design and teaches students design strategies in typography, graphics, tables, color, and information architecture that will subsequently be applied to documents.
Pre: ENG 271W or ENG 272W
Variable

ENG 463 (3) Adolescent Literature
A survey of literature for students in grades 5-12, fiction and non-fiction, and methods of teaching this literature.
Fall

ENG 464 (3) Teaching Literature in the Middle School
Survey of books suitable for the middle school classroom, covering a variety of topics and genres.
Spring

ENG 466 (4) Usability
Introduces students to theories of usability and teaches students various methods to evaluate design for usability including heuristic evaluations, card-sorting, task-based evaluations, and fieldwork.
Pre: ENG 271W or ENG 272W
Variable

ENG 467 (1-4) International Technical Communication
Students learn how to research and write technical information for multiple cultures, both locally and internationally.
Variable

ENG 468 (4) Contemporary Writers
This course approaches works of fiction, poetry, and creative nonfiction from the past 30 years with a special focus on the craft issues that are central components of each work’s success. English 448 is a required course for BA and BFA majors in creative writing.
Spring
Diverse Cultures - Purple

ENG 469 (4) Project Management in Technical Communication
This course is designed to introduce students to technical project management. This introduction is achieved through participation in a simulated project management experience. Assignments include standard documentation associated with project management and reflective writing.
Pre: ENG 271W
Fall, Spring

ENG 470 (1-4) Independent Writing
Writing in an area and of a type for which the student has demonstrated ability. May be repeated.
Pre: Consent

ENG 471 (4) Visual Technical Communication
This course provides analysis and training focused on concepts and practices of visual design as they relate to technical and professional communication.

ENG 472 (1-4) Topics in Technical Communication
Overview of technical communication theory with emphasis on contemporary approaches. Hands-on workshop which implements the theories discussed.

ENG 473 (4) Desktop Publishing
Brief history of publishing and typography, conventions of desktop publishing, and hardware and software application tools for desktop publishing. Students need not have prior experience with DTP, but some word processing and microcomputer experience will be helpful.

ENG 474W (4) Research and Writing Technical Reports
Practice in writing various types of reports for a variety of purposes and audiences. Includes primary and secondary research methods, and data analysis of information to be used in reports.
Pre: ENG 271W or ENG 272W
W1

ENG 475 (4) Editing Technical Publications
Editing the content, organization, format, style, and mechanics of documents; managing the production cycle of documents; and discovering and learning computer and software applications for technical editing tasks.
Spring

ENG 476 (4) Online Documentation
This course serves as an introduction to the conventions and strategies for publishing online documentation and for managing online documentation projects. Topics will include:
1. analyzing users and tasks;
2. designing and writing documents to be published online;
3. testing online documents; and
4. managing online documentation projects.

ENG 477W (4) Technical Documentation, Policies, and Procedures
Creating both online and print documentation for products, with emphasis on computer software and hardware documentation for users. Attention also to policies and procedures as written for a range of uses (e.g., employee handbooks, manufacturing processes, usability testing).
Fall
W1

ENG 478 (4) Technical and Scientific Literature
Reading and analysis of stories, novels, poems, essays, and nonfiction accounts that deal with scientific and technological topics. Focus on the role of technology in communication forms and tools.
ALT-Fall

ENG 479 (4) Rhetorical Theory Applied to Technical Documents
Overview of prominent rhetorical theories, from classical to contemporary, which are applicable to technical communication. Practical application and implications of the theories emphasized. Additional attention given to current issues such as risk communication and ethics.
ALT-Spring
English for Non-Native Speakers/ English as a Second Language

College of Arts & Humanities
Department of English
230 Armstrong Hall • 507-389-2117

Chair: Matthew Sewell
Nancy Drescher, Karen Lybeck, Glen Poupore, Stephen Stoynoff

Courses in English for Non-Native Speakers (English as a Second Language) are intended to help international students and other students who are non-native speakers of English. These courses are advanced level second language courses that prepare students to meet the language demands of academic study. Placement into these courses occurs at the beginning of each semester for newly admitted students, including students who have transferred to Minnesota State Mankato from other institutions. International students must register for and complete any required courses as determined by placement exams. Specific information regarding the testing and placement process may be secured from the office of the English Department or the Kearney International Center.

POLICIES/INFORMATION

GPA Policy. A grade of “C” (2.0) or better must be earned in these courses.

COURSE DESCRIPTIONS

ESL 102 (4) Intensive English for Non-Native Speakers: Academic Oracy Skills I
This IELI course focuses on oral skills in content areas. This will provide insights into U.S. culture(s), academic life in the U.S., and discipline specific topics. It will help prepare students for regular entrance to the university.
Fall, Spring

ESL 103 (4) Intensive English for Non-Native Speakers: Academic Oracy Skills II
This IELI course focuses on more advanced oral skills in content areas. This will provide insights into U.S. culture(s), academic life in the U.S., and discipline specific topics. It should prepare students for regular entrance to the university.
Fall, Spring

ESL 112 (4) Intensive English for Non-Native Speakers: Academic Literacy Skills I
This IELI course focuses on academic literacy skills. Students use reading and process-writing strategies for understanding and producing academic texts in a variety of disciplines and purposes. It helps prepare students for regular entrance to the university.
Fall, Spring
ENGLISH FOR NON-NATIVE SPEAKERS/ENGLISH AS A SECOND LANGUAGE CONTINUED

ESL 113 (4) Intensive English for Non-Native Speakers: Academic Literacy Skills II
This IELI course continues to develop academic literacy skills. Students use reading and process-writing strategies for understanding and producing academic texts in a variety of disciplines and purposes. It should prepare students for regular entrance to the university.
Fall, Spring

ESL 125 (4) Advanced Oracy for Non-Native Speakers
In this developmental English class, regularly admitted students continue to develop the oral skills necessary for academic success. These skills include listening to academic lectures and taking notes, participating in small group discussions, study skills, and practice giving oral presentations.
Fall, Spring

ENVIRONMENTAL SCIENCES

Environmental Sciences
College of Science, Engineering & Technology
Department of Biological Sciences
242 Traflon Science Center S • 507-389-5786
Website: www.cset.mnsu.edu/biology/

Program Coordinator: Beth Proctor, Ph.D.
507-389-5697

Environmental science is an applied science designed to study those factors that impact our environment. Major areas of environmental concern include, but are not limited to, water (surface and ground water) quality, air quality, and solid and hazardous waste issues. This program is designed to encourage students to use the resources of all the colleges of Minnesota State Mankato. The program is oriented toward developing the individual for leadership positions in industry, government, and public concern groups, as well as providing a foundation for individual community involvement as an informed citizen.

POLICIES/INFORMATION

Admission to Major is granted by the department. Admission requirements are:
- 32 earned credit hours including BIOL 105 and BIOL 106 with a grade of “C” in both BIOL 105 and BIOL 106 plus a minimum cumulative GPA of 2.00.

P/N Grading Policy. All courses leading to a major or a minor in environmental sciences must be taken for letter grades.

Refer to the College regarding required advising for students on academic probation.

Residency Requirement. At least 20 credits of 300-400 level courses required for the Environmental Science major must be taken at Minnesota State Mankato. Fourteen of these 20 credits must include ENVR 440 (3 credits), ENVR 450 (3 credits), ENVR 460 (4 credits), ENVR 470 (3 credits) and 1 credit for ENVR 498 (internship) OR ENVR 480 (Research).

GPA Policy. A minimum grade of “C” is required in all courses applied to the Environmental Sciences BS degree.

Several scholarships in the Department of Biological Sciences are available for entering first year students and currently enrolled Minnesota State Mankato students who meet the requirements. Application deadline is March 1 of each year.

ENVIRONMENTAL SCIENCES BS
Degree completion = 120 credits

Required General Education
BIOL 105 General Biology I (4)

ESL 135 (4) Introduction to Composition
This writing course focuses on grammar, sentence combining, paraphrase, organization, library work, revising, and discourse structures. It is designed to meet the needs of students who graduated from US schools and whose first language is not English.
Fall, Spring

ESL 136 (4) Introduction to Composition for International Students
This writing course focuses on grammar, sentence combining, paraphrase, organization, library work, revising, and discourse structures. It is designed to meet the needs of students who graduated from high school outside the United States.
Fall, Spring

Select one of the following chemistry classes (choose 3-5 credits)
CHEM 106 Chemistry of Life Process Part I (General) (3)
CHEM 201 General Chemistry I (5)

Major Common Core
BIOL 106 General Biology II (4)
BIOL 215 General Ecology (4)
BIOL 410 Global Change Biology (3)
ENVR 440 Environmental Regulations (3)
ENVR 450 Environmental Pollution & Control (3)
ENVR 460 Analysis of Pollutants (4)
ENVR 470 Environmental Assessment (3)

Select one of the following math classes (choose 4 credits)
MATH 112 College Algebra (4)
MATH 115 Precalculus Mathematics (4)
MATH 121 Calculus I (4)

Select one of the following classes (choose 5 credits)
ENVR 498 Internship (1-6)
ENVR 480 Senior Research (1-6)

Major Restricted Electives
Select one of the following classes (choose 1-6 credits)
ENVR 480 Senior Research (1-6)
ENVR 498 Internship (1-6)
Select One of the Following Classes (choose 3 credits)
HLTH 475 Biostatistics (3)
STAT 154 Elementary Statistics (3)
Select one of the following classes (choose 5 credits)
CHEM 111 Chemistry of Life Process Part II (Organic & Biochemistry) (5)
CHEM 202 General Chemistry II (5)

CHOOSE 1 CLUSTER
Select TWO courses from ONE of the following 6 Areas
Aquatic Ecology
BIOL 402 Stream Ecology (4)
BIOL 404 Wetlands (4)
BIOL 405 Fisheries Biology (3)
BIOL 432 Lake Ecology (4)

Vertebrate Ecology
BIOL 316 Animal Diversity (3)
BIOL 405 Fisheries Biology (3)
BIOL 408 Vertebrate Ecology (4)
BIOL 409 Advanced Field Ecology (4)
BIOL 412 Soil Ecology (4)
BIOL 431 Comparative Animal Physiology (3)
BIOL 436 Animal Behavior (4)

Ecology
BIOL 316 Animal Diversity (3)
BIOL 403 Conservation Biology (3)
BIOL 405 Fisheries Biology (3)
BIOL 412 Soil Ecology (4)
BIOL 421 Entomology (3)
BIOL 443 Plant Ecology (4)
ENVIRONMENTAL SCIENCES MINOR

Minor Core
ENVR 440 Environmental Regulations (3)
ENVR 450 Pollution and Control (3)*
ENVR 460 Analysis of Pollutants (4)
ENVR 470 Environmental Assessment (3)

*Requires 2 semesters of chemistry

Minor Electives
Select one of the following: CHEM 106 and CHEM 111 OR CHEM 201 and CHEM 202

COURSE DESCRIPTION

ENVR 101 (4) Perspectives in Environmental Science
This course is designed to introduce students to the complex field of environmental science. Reading assignments, lectures, discussions and other class assignments will introduce students to the structure and functions of ecosystems, the concept of sustainability, issues in environmental protection with an emphasis on global commons, the interrelationships between environment, culture, government and economics and what individuals or groups can do to influence environmental policy/rules. Fall, Spring
GE-8, GE-10

ENVR 440 (3) Environmental Regulations
This is a lecture course introducing students to major federal environmental laws and regulations. Discussions include the cause(s) that prompted the enactment of various environmental legislation as well as intent and implementation of the legislation. Both Federal and State of MN environmental statutes will be discussed. Fall

ENVR 450 (3) Environmental Pollution & Control
This is a lecture course that introduces students to sources and controls for pollutants in air, water, and soils including hazardous waste. Chemical and biological mechanisms that are important in nature and used to control/treat various types of pollutants are emphasized. Strongly recommended that this course be taken immediately after completing 1 year of Chemistry.
Pre: 1 year CHEM
Fall
ENVR 460 (4) Analysis of Pollutants
The purpose of this lecture/lab class is to introduce students to standard practices and procedures used in sampling and analysis of environmental matrices and to develop an environmental research project. Standard quality control/quality assurance procedures per EPA are emphasized.
Spring

ENVR 470 (3) Environmental Assessment
Introduces students to National Environmental Policy Act and requirements for Environmental Impact Statements and Environmental Assessment Worksheets. Phase I Environmental Assessment of land and buildings, an international perspective on environmental assessments, and economic and social impact assessment are discussed.
Pre: ENVR 440
Spring

ENVR 480 (1-6) Senior Research
Participate in an independent research project with advisory support and with a focus on the student’s career objectives.
Fall, Spring

Ethnic Studies

The Department of Ethnic Studies (ES), is an interdisciplinary program, academically committed to promoting multicultural and ethnic knowledge, skills and values both within and outside the United States and to preparing our students for effective participation in culturally diverse global communities. A major in ethnic studies gives students exposure to and understanding of those historical, economic, social and political forces which have contoured the cross-cultural and ethnic experience in and outside the United States. This program prepares students to identify social injustice issues (e.g., racism, discrimination, oppressing social conflict) effectively and also aims to provide students with multicultural/ethnic knowledge, multicultural/ethnic values and skills (e.g., cultural competency skills and other professional skills). The ES majors is academically strong and competitive on the market. ES majors must take both ES core courses and skill-oriented or applied courses focusing on one of the following areas of emphasis: Governmental/Public, Business/Corporate, local Community and Human Services, International Community and Human Services and Extended Program.

Admission to Major:
Students enrolling in 300-400 level courses must be admitted to the program. Admission to Major is granted by the department. Minimum University admission requirements are: - a minimum of 32 earned semester credit hours. - a minimum cumulative GPA of 2.00 (“C”).
Contact the department for application procedures.

GPA Policy: 2.0 GPA.

P/N Grading Policy: No more than 1/4 of total undergraduate credits may be taken as P/N.

Ethnic Studies BS

Degree completion = 120 credits

Prerequisites to the Major - General Education
(choose one of the following 3 credit courses)
ETHN 100 American Racial Minorities (3)
ETHN 101 Introduction to Multicultural & Ethnic Studies (3)

Major Common Core

Research Methods/Skills Course
(choose one of the following 3 credit courses)
ETHN 401 Applied Cultural Research (3)
ETHN 402W Ethnic Research Methods/Skills (3)

Critical Thinking/Theoretical Course
(choose one of the following 3 credit courses)
ETHN 400 Cultural Pluralism (3)
ETHN 410 Foundations of Oppression (3)

Major Restricted Electives
(choose at least 15 credit(s): Two must be writing intensive “WI” courses and two must be 400 level courses)
ETHN 150 Multi-Cultural/Ethnic Experience (3)
ETHN 201W Perspectives on African Americans (3)
ETHN 202W Perspectives on American Indians (3)
ETHN 203W Perspectives on Asian Americans (3)
ETHN 204W Perspectives on Latinos/Hispanics (3)
ETHN 220W Civil Rights in the United States (3)
ETHN 295 Selected Topics (1-4)
ETHN 300W American Indian Leaders (3)
ETHN 330 Immigration and Ethnicity (3)
ETHN 405 Immigration/Ethnicity (3)
ETHN 420 African American Studies (3)
ETHN 430 American Indian Studies (3)
ETHN 440 Asian American Studies (3)
ETHN 450 Latino/Hispanic Studies (3)
ETHN 460 Urban Minority Problems (3)
ETHN 470 Women of Color (3)
ETHN 480 Social Justice in Ethnicity & Gender (3)
ETHN 482 Civil Rights in the United States (3)
ETHN 486 Racial and Ethnic Politics (3)
ETHN 495 Selected Topics: Black History (3)
ETHN 496 Workshop (1-3)
ETHN 497 Internship (1-10)
ETHN 498 College Teaching Internship (1-6)
Major Unrestricted Electives

**Multicultural Courses:** (choose at least 15 credits)

- ANTH 240 Language and Culture (4)
- GEOG 103 Introductory Cultural Geography (3)
- HIST 434 East Asian History: 1800-1945 (4)
- HIST 437 African History to 1800 (4)
- HIST 442 History of Latin America (4)
- HIST 477 Advanced African-American History (3)
- MUS 125 Pop Music USA: Jazz to Country to Blues (3)
- MUS 126 Pop Music USA: R&B to MTV (3)
- PHIL 115W Philosophy of Race, Class and Gender (3)
- PHIL 205W Culture, Identity, and Diversity (3)
- SOC 101 Introduction to Sociology (3)
- THEA 285W Theatre of Diversity (3)

**MAJOR EMPHASIS: BUSINESS/CORPORATE**

(Students are encouraged to minor in Marketing, Human Resource Management or International Business) (choose at least 15 credits)

- IBUS 380 Principles of International Business (3)
- MGMT 330 Principles of Management (3)
- MGMT 440 Human Resource Management (3)
- MGMT 445 Training & Development (3)
- MRKT 100 Global Business Concepts (3)
- MRKT 310 Principles of Marketing (3)
- PSYC 463 Survey of Industrial/Organizational Psychology (4)

**MAJOR EMPHASIS: INTERNATIONAL COMMUNITY AND HUMAN SERVICES**

(Students are encouraged to minor in International Relations or any foreign language.) (choose at least 15 credits)

- CMST 203 Intercultural Communication (4)
- ECN 450 Economic Development (3)
- ENG 101 Composition (4)
- ETHN 497 Internship (1-10)
- GEOG 341 World Regional Geography (3)
- GEOG 373 Introduction to Geographic Information Systems (4)
- GWS 220 Global Perspectives on Women and Change (4)
- HIST 191 United States Since 1877 (4)
- IBUS 380 Principles of International Business (3)
- POL 106 Politics in the World Community (3)
- POL 431 International Relations (3)
- PSYC 358 Cultural Psychology (4)
- SOWK 255 Global Responses to Human Need (3)
- URBS 150 Sustainable Communities (3)

**MAJOR EMPHASIS: LOCAL COMMUNITY AND HUMAN SERVICES**

(Students are encouraged to minor in Psychology, Social Work, and Counseling/ Education.) (choose at least 15 credits)

- CSP 471 Interpersonal Helping Skills (3)
- ETHN 497 Internship (1-10)
- HLTH 260 Introduction to Health Education (3)
- KSP 235 Human Development (3)
- PSYC 101 Introduction to Psychological Science (4)
- PSYC 358 Cultural Psychology (4)
- URBS 230W Community Leadership (3)

**MAJOR EMPHASIS: PUBLIC/GOVERNMENT**

(Students are encouraged to minor in Political Science, Law Enforcement or Urban Studies.) (choose at least 15 credits)

- CORR 485 Selected Topics (2-6)
- ECN 100 An Introduction to the U.S. Economy (3)
- ETHN 482 Civil Rights in the U.S. (3)
- ETHN 497 Internship (1-10)
- LAWE 234 Policing in a Diverse Society (3)
- POL 101 Introduction to Public Life (3)
- POL 111 United States Government (3)
- POL 260 Introduction to Public Administration (3)
- SOC 417 Program Administration (3)
- URBS 100 Introduction to the City (3)
- URBS 415 Urban Housing Policy (3)

**EXTENDED PROGRAM COURSES (SUBJECT TO AGREEMENT)**

One computer skills course or quantitative/statistical skills course (3)

Four multicultural electives to be taken within or outside Department of Ethnic Studies but subject to the approval of ES advisors.*

* [Example of multicultural electives outside the ES Department may include but are not limited to: the curricula of social/behavioral sciences, arts/humanities, education or other academic areas—e.g., Anthropology (ANTH 240: Language and Culture), Gender and Women’s Studies (GWS 220: Perspectives on Women and Change or GWS 251: Coming Age: Gender and Culture.), Geography (GEOG 103: Introductory Cultural Geography), History (one Advanced African American History—HIST 437 or HIST 477, or Asian History—HIST 434 or Latin American History—HIST 442), Music (MUS 125 or MUS 126: Pop Music USA, Jazz or R&B) Philosophy (PHIL 115W: Race, Class and Gender; or PHIL 205W: Culture, Identity and Diversity), Sociology (SOC 446: Race, Culture and Ethnicity), Theatre (THEA 285W Theatre of Diversity) All these are just examples subject to the approval of ES advisors.]

**Required Minor:** Yes. Any.

**ETHNIC STUDIES MINOR ONLINE**

(18 credits required)

This Online Ethnic Studies Minor Program requires a total of 18 credits—semester hours. Faculty teach courses via the Desire2Learn. The Desire2Learn (D2L) is Minnesota State University’s (MSU) web-based management system, which manages the delivery of the online courses. All registered students have immediate access to D2L via its link on the MSU homepage. Upon completion, students can transfer the coursework to the baccalaureate degree at MSU or other universities.

**Admission requirements.** Students must be admitted to a major at Minnesota State Mankato or other universities and must have a minimum cumulative GPA of 2.00 or higher.

**Pre-requisites to the Minor Core**

(choose at least three credits from the following)

- ETHN 100 American Racial Minorities (3)
- ETHN 101 Introduction to Multicultural & Ethnic Studies (3)

**Minor Core**

Writing Intensive

(choose at least three credits from the following)

- ETHN 201W Perspectives on African Americans (3)
- ETHN 202W Perspectives on American Indians in Ethnic Studies (3)
- ETHN 203W Perspectives on Asian Americans (3)
- ETHN 204W Perspectives on Latinos/Hispanics (3)
- ETHN 220W Civil Rights in the U.S. (3)

**Research Methods/Skills**

(choose at least three credits from the following)

- ETHN 401 Applied Cultural Research (3)
- ETHN 402 Ethnic Research Method/Skills (3)

**Critical Thinking/Theoretical Course**

(choose at least three credits from the following)

- ETHN 400 Cultural Pluralism (3)
- ETHN 410 Foundations of Oppression (3)

**Major Restricted Electives**

(choose at least six credits from the following)

- ETHN 150 Multicultural/Ethnic Experience (3)
- ETHN 200 Interracial/Interethnic Dating/Marriage (3)
- ETHN 300 American Indian Leaders (3)
- ETHN 330 Immigration/Ethnicity (3)
- ETHN 420 African American Studies (3)
- ETHN 430 American Indian Studies (3)
- ETHN 440 Asian American Studies (3)
- ETHN 450 Latino/Hispanic Studies (3)
- ETHN 460 Urban Minority Problems (3)
- ETHN 470 Women of Color (3)
- ETHN 480 Social Justice in Ethnicity and Gender (3)
- ETHN 486 Racial and Ethnic Politics (3)
COURSE DESCRIPTIONS

ETHN 100 (3) American Racial Minorities
A study of American racial/ethnic minorities, especially the histories of Native Americans, African Americans, Hispanic Americans, and Asian Americans. Their roles and contributions to American society will be emphasized.
Fall, Spring
GE-5, GE-7
Diverse Cultures - Purple

ETHN 101 (3) Introduction to Multicultural & Ethnic Studies
This course introduces students to multicultural and ethnic knowledge and values in and outside the United States. Students are exposed to such issues as race, culture, ethnicity, dominance, immigration, stereotypes, discrimination, and intergroup relations through interdisciplinary approaches—anthropological, economic, historical, political, psychological and/or sociological.
Fall, Spring
GE-5, GE-7
Diverse Cultures - Purple

ETHN 150 (3) Multi-Cultural/Ethnic Experience
Students will participate in field trips, activities, and guest discussions that will enable them to interact with people ethnically (race, religion, lifestyle, etc.) different from the students, to understand their perspectives and to appreciate their unique experiences and/or contributions to the U.S. pluralistic society. Students are expected to learn actively in and outside the classroom by experiencing events or people from diverse cultural groups.
Fall
GE-7
Diverse Cultures - Gold

ETHN 200 (3) Interracial/Interethnic Dating/Marriage
This course deals with the history of interracial/interethnic and intergroup (sex, age, religion, etc.) dating and marriage in the U.S. It will explore dating patterns, mate selection theories and impacts on multi-racial children in the area of identity and adjustment.
Variable
GE-7

ETHN 201W (3) Perspectives on African Americans
This course will explore the historical, social, political, and cultural experience of African Americans. It will also examine the contributions of African Americans to the growth and development of the United States.
WI, GE-5, GE-7
Diverse Cultures - Purple

ETHN 202W (3) Perspectives on American Indians in Ethnic Studies
This course is an examination of the historical and contemporary issues and forces affecting American Indian peoples.
WI, GE-5, GE-7

ETHN 203W (3) Perspectives on Asian Americans
Introduction to the history and cultures of the major Asian American ethnic groups with a comparative approach to their similarities and differences.
WI, GE-5, GE-7
Diverse Cultures - Purple

ETHN 204W (3) Perspectives on Latinos/Hispanics
A survey of the history and present status of Hispanics/Latinos in the United States from 1848. Emphasis will be on culture, history, and socio-political patterns.
WI, GE-5, GE-7
Diverse Cultures - Purple

ETHN 220W (3) Civil Rights in the U.S.
This course will focus on the struggle for civil rights by diverse groups in the United States. Emphasis will be on how these struggles have impacted their communities and cultural pluralism in the U.S.
Variable
WI, GE-5
Diverse Cultures - Purple

ETHN 295 (1-4) Selected Topics
The course is offered according to student demand and instructor availability/expertise. A variety of topics related to ethnic and cultural areas will provide curriculum enrichment on an ongoing, but irregular basis.
Variable

ETHN 296 (1-3) Workshop
Courses will employ changing topics from year to year and will deal with cogent issues of current interest to ethnic and minority communities.
Variable

ETHN 299 (1-3) Individual Study
Exploratory independent study and research. Areas of interest not addressed in regular courses are given priority. Maximum three credits toward the major; one credit toward the minor.
Pre: Two other ETHN courses.
Fall, Spring

ETHN 300W(3) American Indian Leaders
The course surveys the social and cultural dimensions of traditional and contemporary American Indian leadership. This leadership is understood through a study of the lives, strategies, and words of American Indian leaders who played significant roles in the history of contact between Euro-American and indigenous North American peoples.
Pre: Consent
Variable
W1

ETHN 330 (3) Immigration and Ethnicity
Examines the history, identity, conflict and ethnic relations related to immigration as explored from an Ethnic Studies perspective as well as from American and global perspectives.

ETHN 400 (3) Cultural Pluralism
This course will examine issues confronted in a multicultural society. It will study ethnic/minority groups not usually included in mainstream society, including their uniqueness and harmonious coexistence with other ethnic groups.
Fall, Spring

ETHN 401 (3) Applied Cultural Research
This course introduces concepts and methods of applying socio-cultural understanding to contemporary problems to bring about the empowerment of affected people. Case/field studies and other research methods in social sciences will be used to illustrate the impact and problems of cultural change with special attention to its affect on disadvantaged groups of people. Students will also design their own applied projects.
Pre: ANTH 101, ANTH 230 or consent; ETHN 100, ETHN 101 or ETHN 150 or consent
Variable
Diverse Cultures - Gold

ETHN 402W (3) Ethnic Research Methods/Skills
This is a comprehensive course, which introduces students to qualitative, quantitative and evaluation social research methods. It provides students with hands-on experience of collecting and analyzing data, from any given diverse ethnic community through participant observation and needs assessment.
Pre: ETHN 100 or ETHN 101 or ETHN 150, or Consent
Variable
W1
Diverse Cultures - Gold

ETHN 403 (3) Chicana Feminisms
This course examines the different forms of Chicana Feminisms produced by Chicana scholars and activists. It demonstrates how Chicana Feminisms challenge social inequalities, and focuses on the construction of Chicana identities regarding the intersections of gender, race/ethnicity, sexuality and culture.
Diverse Cultures - Purple
ETHN 405 (3) Perspectives on New Immigrants
The purpose of this course is to examine the challenges and opportunities of the new immigrants, refugees, families, and specifically their children, in the United States.
Fall

ETHN 410 (3) Foundations of Oppression
Students will examine the forces which create and maintain prejudice, discrimination and racism within global perspectives. Special attention will be given to the work of Paulo Freire.
Pre: ETHN 100 or ATHN 400
Fall
Diverse Cultures - Purple

ETHN 420 (3) African American Studies
This course will provide students with an in-depth examination of the issues affecting present-day Africans, and those of the Black Diaspora. Possible topics are fair representation in the media, education, cross-cultural interactions, economics, politics/law, and racial identity.
Pre: ETHN 110 or ETHN 400 or consent
Variable

ETHN 430 (3) American Indian Studies
This course will provide multiple perspectives about the issues facing American Indian peoples today. Topics to be considered are education, health care, gender, land rights, religious freedom, cultural identity, natural resource management, law enforcement, economic development, self-determination, and mass media images.
Pre: ETHN 400, or consent
Variable

ETHN 440 (3) Asian American Studies
Examination of current issues affecting the status of Asian Americans. The focus of this course will vary to reflect students' interests in the area of politics, education, economics, social and/or cultural dealing with Asian Americans.
Pre: ETHN 400, or consent
Variable
GE-5

ETHN 450 (3) Latino/Hispanic Studies
Thematic examination of major issues surrounding Latino/Hispanic communities in the United States. Emphasis will be on education, labor, politics, social welfare and migration.
Pre: ETHN 400, or consent
Variable

ETHN 460 (3) Urban Minority Problems
This course is concerned with racial/ethnic minorities who live in large urban (inner city) areas. It is especially concerned with the roles that culture and discrimination play in the shaping of America’s ghettos, barrios, reservations, and Chinatowns.
Spring
Diverse Cultures - Purple

ETHN 470 (3) Women of Color
Examines the effects of sexism and racism on women of color and provides an understanding of the significant contributions they have made in their struggle against oppression.
Pre: ETHN 400, or consent
Spring
Diverse Cultures - Purple

ETHN 480 (3) Social Justice in Ethnicity & Gender
Survey of institutional sexism and racism including their impact on U.S. society. Special attention will be given to their interconnectedness.
Pre: ETHN 400 or consent
Variable

ETHN 482 (3) African American Civil Rights Movement
This course will take an interdisciplinary ethnic studies approach to examine the past, present and future implications of the African American civil rights movement on race relations in the United States.
Fall

ETHN 486 (3) Racial and Ethnic Politics
The course examines racial and ethnic minorities, and the mutual influences between these groups and the structures, procedures and issues of US politics. Major topics include: opinion on racial issues, the representation of minorities in elective and appointive offices, and the nature of value conflicts underlying contemporary racial issues, including affirmative action, immigration, welfare, language policies and Native American tribal issues.
Variable
Diverse Cultures - Purple

ETHN 490 (3) Racial/Ethnic Families in the U.S.
This course will examine the different definitions of “family” through time in the United States. It will focus on changes in the African, Native, Hispanic/Latino, and Asian-American families. It will compare and contrast differences and similarities among ethnic minority families as well as between them and white ethnic families.
Pre: ETHN 400, or consent
Variable

ETHN 495 (3) Selected Topics
Multiple perspectives on the selected topic(s) will be addressed. Student scholars may contribute to the selection and/or refinement of the topic(s). Highly motivated seniors will join with graduate students in a graduate-type seminar.
Pre: ETHN major
Variable

ETHN 496 (1-3) Workshop
Courses will employ changing topics from year to year and deal with cogent issues of current interest to one or more minority communities.
Variable

ETHN 497 (1-10) Internship
Supervised, scholarly experience to which the theories and methodologies of ethnic studies can be applied. Opportunities may be on-campus and/or off-campus, including work in other countries.
Pre: ETHN major or minor
Fall, Spring

ETHN 498 (1-6) College Teaching Internship
Students assist a faculty member in teaching an ETHN 100 or ETHN 101.

ETHN 499 (1-3) Individual Study
Advanced independent study and research. Maximum of three credits toward the major; one credit toward the minor.
Pre: 2 ETHN courses at 300/400 level
Fall, Spring
EXERCISE SCIENCE

Exercise Science
College of Allied Health & Nursing
Department of Human Performance
1400 Highland Center • 507-389-6313
Website: www.mnsu.edu/dept/colahn/hp.html

Chair: Robert Pettitt

The Exercise Science major is recognized by the National Strength and Conditioning Association for successfully meeting established educational criteria in strength and conditioning. It is a broad-based, science-oriented major that prepares students to create effective exercise prescriptions and to oversee exercise programs for normally healthy individuals. An Exercise Science major also prepares students for admission to graduate programs in Exercise Physiology, Cardiac Rehabilitation, Sports Psychology, and related areas. Students who have also completed the pre-physical or pre-occupational therapy concentrations in addition to this major have successfully gained admission to graduate programs in those areas.

Exercise science students are not required to complete a minor but may choose to obtain one to gain additional training or expertise.

POLICIES/INFORMATION

Admission to Program. Admission to the Exercise Science major is selective and not all students who apply will be accepted. Minimum requirements for application are as follows:
1. Minimum overall grade point average of 2.75
2. Completion of BIOL 330 with a grade of “C” or better
3. Successful completion of at least 32 semester credits

EXERCISE SCIENCE, BS
Degree completion = 120 credits

Required General Education
ENG 101 Composition (4)
IT 100 Introduction to Computing and Applications (4)

Major Common Core
Students may take HP 466W instead of HP 466.
BIOL 220 Human Anatomy (4)
BIOL 330 Principles of Human Physiology (4)
HP 348 Structural Kinesiology and Biomechanics (3)
HP 414 Physiology of Exercise (3)
HP 439 Nutrition for Physical Activity and Sport (3)
HP 456 Athletic Testing and Conditioning (2)
HP 465 Legal Aspects of Physical Education and Sport (3)
HP 466 Graded Exercise Testing and Exercise Prescription (3)

Major Restricted Electives
(Please select 2 credits from these activity classes)
HP 103 Fitness for Living (1)
HP 104 Adult Fitness (1)
HP 105 Beginner and Advanced Beginner Swimming (1)
HP 107 Orienteering (1)
HP 114 Billiards and Bowling (1)
HP 117 Aerobic Conditioning (1)
HP 130 Self-Defense for Women (1)
HP 138 Beginning Horsemanship (1)
HP 139 Winter Survival (1)
HP 143 Aqua Exercise (1)
HP 145 Aquatic Conditioning and Water Polo (1)
HP 146 Intercollegiate Bowling (1)
HP 147 Intercollegiate Cross Country (1)
HP 148 Intercollegiate Softball (1)
HP 149 Intercollegiate Volleyball (1)
HP 150 Intercollegiate Wrestling (1)
HP 152 Intercollegiate Track and Field (1)
HP 153 Intercollegiate Swimming (1)
HP 154 Intercollegiate Football (1)
HP 155 Intercollegiate Basketball (1)
HP 156 Intercollegiate Baseball (1)
HP 157 Intercollegiate Golf (1)
HP 158 Intercollegiate Tennis (1)
HP 159 Intercollegiate Hockey (1)
HP 160 Introduction to Human Performance Studies (2)
HP 161 Intercollegiate Soccer (1)
HP 166 Team Game Skills (1)
HP 174 Individual-Dual Activities (1)
HP 175 Fitness Activities (1)
HP 176 Lifetime Activities I (1)
HP 177 Lifetime Activities II (1)
HP 178 Social, Folk and Square Dance Techniques (1)
HP 179 Winter Activities (1)
HP 180 Introduction to Handball (1)
HP 181 Advanced Handball (1)
HP 182 Aquatic Skills (1)
HP 190 Sport Activities (1)

Major Unrestricted Electives
Elective courses (choose 3-6 credits)
Pre-Physical Therapy emphasis requires 3 credits. The General Exercise Science emphasis requires 6 credits. Electives may not be double counted for courses required in the emphases.

BIOL 320 Cell Biology (4)
BIOL 324 Neurobiology (3)
BIOL 380 Blood Banking/Urinalysis (3)
BIOL 417 Biology of Aging and Chronic Diseases (3)
BIOL 433 Cardiovascular Physiology (3)
BIOL 466 Principles of Pharmacology (3)
BIOL 474 Immunology (4)
CHEM 360 Principles of Biochemistry (4)
FCS 440 Nutrition II (3)
FCS 446 Lifespan Nutrition (3)
HLTH 210 First Aid & CPR (3)
HLTH 321 Medical Terminology (3)
HLTH 451 Emotional Health and Stress (3)
HLTH 455 Health and Aging (3)
HP 340 Prevention and Care (2)
HP 341 Athletic Training Techniques (3)
HP 413 Lifespan Motor Development (1-2)
HP 415 Advanced Sports Medicine (2)
HP 418 Intercultural Competence for Allied Health Professionals (3)
HP 421 Teaching Sport to Individuals with Disabilities (2)
HP 440 Medical Aspects of Athletic Training (3)
HP 441 Organize & Administer (2)
HP 451 Principles of Coaching (3)
HP 467 Worksite Wellness Program Development (3)
HP 470 Psychology of Coaching (3)
HP 472 Psychology of Sport and Athletic Injury (3)
PSYC 433 Child Psychology (4)
PSYC 436 Adolescent Psychology (4)
PSYC 455 Abnormal Psychology (4)
PSYC 460 Psychology of Women (3)
PSYC 466 Psychology of Aging (3)

Required Minor: None.

Major Emphasis: General Exercise Science
The General Exercise Science emphasis requires a minimum of 3 credits of HP 496 which can be split across semesters. One credit = 50 hours. Students commonly use physical therapy observation hours to fulfill the internship requirement.
Required General Education

- CHEM 111 Chemistry of Life Process Part II (Organic & Biochemistry) (5)
- FCS 140 Introduction to Nutrition (3)
- HLTH 210 First Aid & CPR (3)
- MATH 112 College Algebra (4)

General Exercise Science Core

- HP 160 Introduction to Human Performance Studies (2)
- HP 290 Psycho-Social Aspects of Sport (3)
- HP 291 Concepts of Fitness (2)
- HP 392 Group Exercise Instruction (3)
- HP 403 Research Methods & Statistics in Exercise Science (3)
- HP 477 Behavior Change Strategies and Foundations (3)
- HP 486 Small Group Personal Training (3)
- HP 487 Applied Exercise Science (3)

General Exercise Science Capstone (choose 3-10 credits)

The General Exercise Science emphasis requires a minimum of 3 credits of HP 496 which can be split across semesters. One credit = 50 hours.

- HP 496 Internship (1-10)

Major Emphasis: Pre-Physical Therapy

The Pre-Physical Therapy emphasis requires a minimum of 3 credits of HP 496 which can be split across semesters. One credit = 50 hours. Students commonly use physical therapy observation hours to fulfill the internship requirement.

- HP 496 Internship (1-10)

Family Consumer Science

College of Allied Health & Nursing
Department of Family Consumer Science
102 Wiecking Center • 507-389-2421
Website: http://ahn.mnsu.edu/fcs/

Chair: Jill Conlon

David Bissonnette, Joye Bond, Daniel Moen, Heather Von Bank


The mission of the Department of Family Consumer Science is to promote the well-being of people, the enrichment of quality environments, and to prepare men and women to assume essential professional roles in a culturally diverse global society. The comprehensive program provides training for professional roles within dietetics, family consumer science education, child development and family studies, and food and nutrition.

POLICIES/INFORMATION

Declaring an FCS Major. Students may declare an FCS major at any point in their academic program. Upon declaring an FCS major, an advisor is assigned. Full admission to the department and major requires:
- A minimum of 32 earned semester credit hours.
- A minimum cumulative GPA of 2.5. FCS Education majors need a minimum GPA of 2.75.

Contact the department for application procedures.

GPA Policy. All courses required for major or minor option must be at “C” level or higher.

Course Policy. For those options requiring FCS 440 (dietetics, food and nutrition major and minor): CHEM 111 and BIOL 330 must both be completed at “C” level or higher in order to receive permission to register.

P/N Policy. All FCS courses required for an option must be taken for a grade, except where P/N grading is mandatory.

FAMILY CONSUMER SCIENCE, BS
Degree completion = 120 credits

Required for Major (Option). Select one of the following options to correspond with personal and professional objectives:

CHILD DEVELOPMENT AND FAMILY STUDIES OPTION

This option helps prepare students to work with children, adults and families in a variety of human services, educational and community settings.

Required General Education

- FCS 100 Personal and Family Living (3)
- FCS 101 Introduction to Family Consumer Science (3)

Major Common Core

- FCS 101 Introduction to Family Consumer Science (3)

Major Restricted Electives

Family Consumer Science Electives

- FCS 120 Clothing and People (2)
- FCS 140 Introduction to Nutrition (3)
- FCS 150 Food, Culture and You (3)
- FCS 280 Orientation to Family Consumer Science Education (2)
- FCS 331 Clothing Construction and Textiles (4)
- FCS 473 Consumer Protection (3)

Child Development and Family Studies

- FCS 230 Child Care Psychology (3)
- FCS 270 Family Housing (2)
- FCS 360 Romantic Relationships (3)
FCS 402 Play and Child Development (3)
FCS 403 Parents and Peers and Adolescent Development (3)
FCS 446 Lifespan Nutrition (3)
FCS 474 Community Resources and Family Support (3)
FCS 478 Family Finance (3)
FCS 483 Adult Education in Family Consumer Science (3)
FCS 495 Intern: Early Child Family (3-4)
FCS 496 Selected Topics: CDFS
FCS 497 Internship (1-6)
FCS 498 Undergraduate Internship (1-6)

Major Emphasis: Child Development and Family Studies
FCS 275 Consumers in the Economy (3)
FCS 301 Lifespan Development (3)
FCS 303 Working with Families (3)
FCS 400 Culturally Diverse Family Systems (3)
FCS 401 Family Life Development (3)
FCS 414 Family Policy and Ethics (3)
FCS 482 Teaching Family Life/Parent Education (3)
FCS 488 Parenting Education (3)
FCS 496 Selected Topics: CDFS (2-3)
HLTH 311 Family Life & Sex Education (3)

Minor
Choose 16-36 credits from any minor

Becoming a Certified Family Life Educator (CFLE)
The Child Development and Family Studies program has been approved by the National Council on Family Relations. Minnesota State Mankato graduates with an CDFS major or minor who have taken the approved courses are eligible to become Certified Family Life Educators. Being a CFLE recognizes a broad understanding of family life issues. Certification is available to professionals from all disciplines who have met the requirements.

Dietetics Option*
The Dietetics Option* promotes growth among students wanting to become competent dietetics professionals by providing the ‘highest practicable quality’ advisory, academic, real-life and interactive opportunities while at Minnesota State Mankato, and by developing confidence and competence to advance after graduation to Dietetics Internship, graduate programs and/or related employment.

A student who chooses to become a Registered Dietitian (RD) upon graduation from Minnesota State Mankato will also need to:

a. Meet published requirements to receive a Verification Form from the Dietetics Director.

b. Apply, be accepted, and complete a supervised practice program (Dietetic Internship).

c. Pass a national registration examination.

Minnesota State Mankato faculty are committed to positioning majors for successful transition from Minnesota State Mankato to Dietetic Internship and beyond. Regular and continuous advising is recommended to be successful.

Graduates are employed as RDs or non-RD nutritionists in health care; community, public health, and corporate fitness settings or as members of food management teams.

* The Dietetics Option, a Didactic Program in Dietetics (DPD) is accredited by the Accreditation Council for Education in Nutrition and Dietetics, the accrediting agency for the Academy of Nutrition and Dietetics. Academy of Nutrition and Dietetics 120 South Riverside Plaza, Suite 2000, Chicago, IL 60606. (800-877-1600 ext. 5400) www.eatright.org/ACEND.

Required General Education
BIOL 270 Microbiology (4)
CHEM 106 Chemistry of Life Process Part I (General) (3)
ENG 101 Composition (4)
IT 100 Introduction to Computing and Applications (4)
MATH 112 College Algebra (4)
SOC 101 Introduction to Sociology (3)

(choose 3 credits)
CMST 100 Fundamentals of Communication (3)
CMST 102 Public Speaking (3)

(choose 3 credits)
ETHN 101 Introduction to Multicultural & Ethnic Studies (3)
ETHN 150 Multi-Cultural/Ethnic Experience (3)

Prerequisites to the Major
BIOL 220 Human Anatomy (4)
BIOL 330 Principles of Human Physiology (4)
CHEM 111 Chemistry of Life Process Part II (Organic & Biochemistry) (5)
ENG 271W Technical Communication (4)
HLTH 321 Medical Terminology (3)
HLTH 475 Biostatistics (3)
HLTH 477 Behavior Change Foundations and Strategies (3)
PSYC 101 Introduction to Psychological Science (4)

Major Common Core
FCS 101 Introduction to Family Consumer Science (3)

Major Emphasis: Dietetics
(2 credits from FCS 497 required)
FCS 150 Food, Culture and You (3)
FCS 242 Nutrition for Healthcare Professionals (3)
FCS 252 Food Service Systems I (3)
FCS 340 Food Science (4)
FCS 342 Food Production Management (3)
FCS 350 Food Service Systems II (3)
FCS 420 Nutrition Assessment (3)
FCS 440 Nutrition II (3)
FCS 442 Medical Nutrition Therapy I (3)
FCS 446 Lifespan Nutrition (3)
FCS 447 Food Policy (3)
FCS 448 Medical Nutrition Therapy II (3)
FCS 483 Adult and Technical Education in Family Consumer Science (3)
FCS 492 Dietetics Seminar (2)
FCS 497 Internship (1-6)

Food and Nutrition Option
This option prepares graduates for various careers in health promotion, wellness, food service, and/or nutrition, (such as restaurant or school lunch management); research and development or quality assurance in the food industry; and/ or in corporate food distribution, production, sales and service. A supervised internship during the major allows students to gain experience in a particular area of interest. While a minor is not required, it is strongly recommended in order to improve employment opportunities.

Required General Education
CHEM 106 Chemistry of Life Process Part I (General) (3)
CHEM 111 Chemistry of Life Process Part II (Organic & Biochemistry) (5)
ENG 271W Technical Communication (4)
FCS 140 Introduction to Nutrition (3)

Prerequisites to the Major
BIOL 220 Human Anatomy (4)
BIOL 330 Principles of Human Physiology (4)
HLTH 475 Biostatistics (3)

Major Common Core
FCS 101 Introduction to Family Consumer Science (3)

Major Unrestricted Electives
(choose 8 credits; at least 3 credits must be from 3-400 level courses)
BIOL 270 Microbiology (4)
BIOL 478 Food Microbiology and Sanitation (4)
FCS 100 Personal & Family Living (3)
FCS 275 Consumers in the Economy (3)
FCS 400 Culturally Diverse Family Systems (3)
FCS 417 Principles of Wellness Coaching (3)
FAMILY CONSUMER SCIENCE CONTINUED

FCS 439 Nutrition for Physical Activity and Sport (3)
FCS 473 Consumer Protection (3)
HLTH 210 First Aid & CPR (3)
HLTH 212 Consumer Health (3)
HLTH 260 Introduction to Health Education (3)
HLTH 315 Holistic Health and Wellness (3)
HLTH 321 Medical Terminology (3)
HLTH 361 Health Communication and Advocacy (4)
HLTH 380W Health Education Planning, Implementing, and Evaluating I (3)
HLTH 400 Women’s Health (3)
HLTH 410 Current Health Issues (3)
HLTH 450 Environmental Health (3)
HLTH 451 Emotional Health and Stress (3)
HLTH 454 Chronic and Infectious Diseases (3)
HLTH 455 Health and Aging (3)
HLTH 460 Introduction to Epidemiology (3)
HLTH 465 Health Care Delivery in the United States (3)
HLTH 467 Public Health Law (3)
HLTH 480 Health Education Planning, Implementing and Evaluating 2 (3)
HLTH 481 Community Organizing for Health (3)
HLTH 488 Worksite Health Promotion (3)
HP 348 Structural Kinesiology and Biomechanics (3)
HP 414 Physiology of Exercise (3)
HP 465 Legal Aspects of Physical Education and Sport (3)
HP 466 Graded Exercise Testing and Exercise Prescription (3)

Major Emphasis: Foods and Nutrition
FCS 150 Food, Culture and You (3)
FCS 242 Nutrition for Healthcare Professionals (3)
FCS 252 Food Service Systems I (3)
FCS 340 Food Science (4)
FCS 342 Food Production Management (3)
FCS 350 Food Service Systems II (3)
FCS 420 Nutrition Assessment (3)
FCS 440 Nutrition II (3)
FCS 444 Experimental Food Science (3)
FCS 446 Lifespan Nutrition (3)
FCS 447 Food Policy (3)
FCS 483 Adult & Technical Education in Family Consumer Science (3)
FCS 497 Internship (1-6)

Required Minor: None

FAMILY CONSUMER SCIENCE EDUCATION BS TEACHING

This option prepares men and women to teach family consumer science in grades 5-12 and for other education-related professions.

Required General Education (35 credits)
FCS 100 Personal & Family Living (3)
FCS 140 Introduction to Nutrition (3)
HLTH 240 Drug Education (3)

Major Common Core
FCS 101 Introduction to Family Consumer Science (3)

Major Emphasis
FCS 120 Clothing and People (2)
FCS 150 Food, Culture and You (3)
FCS 270 Family Housing (2)
FCS 275 Consumers in the Economy (3)
FCS 284 Foundations of FCS Education (3)
FCS 301 Lifespan Development (3)
FCS 331 Clothing Construction and Textiles (4)
FCS 340 Food Science (4)
FCS 400 Culturally Diverse Family Systems (3)
FCS 414W Family Policy and Ethics (3)
FCS 478 Family Finance (3)
FCS 484 Program Development in Family Consumer Science (4)
FCS 488 Parenting Education (3)
HLTH 311 Family Life & Sex Education (3)

Other Graduation Requirements
Required for Major (Professional Education, 30 credits) See the SECONDARY EDUCATION section for admission requirements to Professional Education and a list of required professional education courses.

Required Minor: None

FOOD AND NUTRITION MINOR

Students majoring in Nursing, Human Performance, Dental Hygiene, Food Science Technology, Community Health, or other similar majors can benefit from a Food and Nutrition minor.

Required Courses (18 credits)
FCS 140 Introduction to Nutrition (3)
FCS 150 Food, Culture and You (3)
FCS 242 Nutrition for Healthcare Professionals (3)
FCS 420 Nutrition Assessment (3)
FCS 440 Nutrition II (3)
FCS 446 Lifespan Nutrition (3)

Required Minor Electives
(choose a minimum of 2 credits from any 300-400 level FCS courses)

CHILD DEVELOPMENT AND FAMILY STUDIES MINOR

A minor with a focus in Child Development and Family Studies is useful to a variety of students going into professions related to health and human services, especially those who will work with children and families. Students may choose any combination of 20 credits from the list of courses below for a minor. Other courses may be chosen with advisor approval. A minor in this area can enable students to become Certified Family Life Educators through National Council on Family Relations.

Minor Electives (choose 20 credits)
FCS 100 Personal & Family Living (3)
FCS 101 Introduction to Family Consumer Science (3)
FCS 230 Child Care Psychology (3)
FCS 270 Family Housing (2)
FCS 275 Consumers in the Economy (3)
FCS 301 Lifespan Development (3)
FCS 303 Working With Families (3)
FCS 400 Culturally Diverse Family Systems (3)
FCS 401 Family Life Development (3)
FCS 402 Play and Child Development (3)
FCS 403 Parents and Peers and Adolescent Development (3)
FCS 408 Family Life Dynamics (3)
FCS 414W Family Policy and Ethics (3)
FCS 446 Lifespan Nutrition (3)
FCS 478 Family Finance (3)
FCS 482 Teaching Family Life/Parenting Education (3)
FCS 483 Adult and Technical Education in Family Consumer Science (3)
FCS 488 Parenting Education (3)
FCS 496 Selected Topics: CDFS (2-3)
FCS 497 Internship (1-6)
HLTH 311 Family Life & Sex Education (3)

CONSUMER STUDIES MINOR

Professionals in this business related area usually work with people in professions such helping consumers get the best product or service for their money, advocating for a good availability of choices, resolving consumer complaints to achieve fair solutions, and helping consumers with a variety of money management issues.

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### FAMILY CONSUMER SCIENCE CONTINUED

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### Strongly Recommended Electives

| MRKT 310 | Principles of Marketing (3) |
| MRKT 316 | Consumer Behavior (3) |

### COURSE DESCRIPTIONS

#### FCS 100 (3) Personal & Family Living
Emphasizes individual growth and interpersonal relationships within our diverse society. Focuses on issues such as interpersonal communication, conflict resolution, mate selection, marriage and family issues, family strengths, stress and crises, parenting decision-making and parent-child relationships, resource management, and personal and family financial issues.

Fall, Spring

GE-5

#### FCS 101 (3) Introduction to Family Consumer Science
An overview of the scope of family consumer sciences and the career potentials of the profession.

Fall, Spring

Diverse Cultures - Purple

#### FCS 120 (2) Clothing and People
Relationship of clothing to people from cultural, social, psychological, economic and aesthetic perspectives.

Fall

Diverse Cultures - Purple

#### FCS 140 (3) Introduction to Nutrition
An introductory nutrition class which emphasizes the scientific method and natural science principles from biochemistry, physiology, chemistry, and other sciences to explain the relationships between food and its use by the human body for energy, regulation, structure, and optimal health.

Fall, Spring

GE-3 non-lab

#### FCS 150 (3) Food, Culture, and You
Introduces students to basic food preparation and culinary techniques. Students look at different cultures and the roles of individuals and nations in a global context using food habits as a model.

Fall, Spring

#### FCS 230 (3) Child Care Psychology
Principles of psychology applied to child rearing.

Diverse Cultures - Gold

#### FCS 242 (3) Nutrition for Healthcare Professionals
The science of six nutrition classes, including digestion through metabolism, and application of nutrition knowledge to clinical care, including weight control and common chronic conditions requiring nutrition therapy.

Pre: BIOL 220, CHEM 106 or CHEM 111

Fall, Spring

#### FCS 252 (3) Food Service Systems I
Principles of food services operations related to menu planning, standardized recipes, production, and service in for profit and nonprofit settings. Includes the NRA ServSafe certification.

Fall

#### FCS 270 (2) Family Housing
Physical, psychological, social, and managerial aspects of housing. Reciprocal relationship between housing and people. Guidelines and basic principles in planning for individual and family needs.

Spring

#### FCS 275 (3) Consumers in the Economy
Economic decision making related to achieving maximum satisfaction from resources spent in the marketplace on housing, food, clothing, transportation, and other dimensions of the family. Basic information about the functions and responsibilities of the consumer, laws and agencies affecting consumer well-being and sources of help.

Fall

#### FCS 284 (3) Foundations of FCS Education
Nature and scope of Family and Consumer Sciences (FCS) education for grades 5-12. Principles and application of traditional, career/technical and critical science FCS Education perspectives studied. Presentation of varied FCS teaching methods and techniques.

Alt-Fall

#### FCS 301 (3) Lifespan Development
Study of the family from a historical perspective; in terms of the family system and the broader ecological system; in terms of stresses faced and coping responses. This course will address issues at each of four life stages: infancy and early childhood; the school years; transition from school to adult life; and the adult years.

Fall

#### FCS 303 (3) Working With Families
Study of the role of the family in the development of the young child. Provide teachers and care providers with knowledge and understanding of family systems and appropriate interactions with families. Students will participate in a service learning activity.

Fall, Spring

#### FCS 331 (4) Clothing Construction and Textiles
Introduction to principles and hands-on application of construction techniques for clothing and home furnishings. Emphasis on terminology, equipment, application and practice of sewing skills. Emphasis on consumer aspect of textiles and applications. Student projects will be aligned with sewing skills and experience.

Fall, Spring

#### FCS 340 (4) Food Science
Study of why, how, and when physical and chemical phenomena occur during the preparation of food and its products. Includes discussion and laboratory experience demonstrating how preparation methods affect food quality, composition, and nutritive value.

Pre: FCS 150

Fall

#### FCS 342 (3) Food Production Management
Planning, preparing and serving meals with emphasis on effective management, nutritive needs, purchasing, and equipment. Includes quantity food service laboratory.

Pre: FCS 252, FCS 340, FCS 350

Spring

#### FCS 350 (3) Food Service Systems II
Principles of food services management related to budgeting, food safety and operational sanitation, analysis and control of quality and quantity in institutional and public food service operations.

Pre: FCS 252

Spring
FCS 360 (3) Romantic Relationships
This course is an in-depth examination and discussion of the many complex
dynamics that make up romantic relationships. A diverse set of relationship top-
ics are covered, including attachment, intimacy building and conflict diffusing
strategies. Open discussion, critical thought, and application are encouraged via
classroom and online opportunities.
Fall

FCS 400 (3) Culturally Diverse Family Systems
An analysis of culturally diverse family systems in America; emphasis on relationships
within the family and with the larger community across the family life cycle.
Fall
Diverse Cultures - Purple

FCS 401 (3) Family Life Development
The course is a study of development through the family life cycle. Emphasis on
developmental interaction and systems theory.
Spring

FCS 402 (3) Play and Child Development
An examination of the important role that play has in the cognitive, emotional,
physical, and social development of the child from birth to adolescence.
Summer

FCS 403 (3) Parents and Peers and Adolescent Development
Examination of how adolescents’ development are affected by their relationships
with their parents and with their peers.
Spring

FCS 414W (3) Family Policy and Ethics
An examination, analysis, and application of the impact of law, public policy,
and ethical principles on family life.
Spring
WI

FCS 417 (3) Principles of Wellness Coaching
This course contains content associated with challenging entry-level certifica-
tions for wellness coaching. Health behavior change strategies are emphasized
within the context of the health coaching theory, coaching relationship skills,
well-being assessment, and goal setting.
Fall, Spring

FCS 420 (3) Nutrition Assessment
In-depth study and practice of nutrition assessment techniques including dietary
histories, anthropometrics, physical signs and symptoms, and laboratory inter-
pretation in various age groups and conditions. Students will use findings to
determine nutritional needs and make nutritional diagnoses.
Pre: FCS 242
Spring

FCS 429 (3) Nutrition for Physical Activity and Sport
Provides in-depth exploration of the dietary needs of physically active individu-
als across the lifespan. Its laboratory component will focus on performance and
interpretation of assessments commonly used to determine dietary and
physiological status.
Pre: FCS 140 or FCS 242
Fall, Spring

FCS 440 (3) Nutrition II
An advanced nutrition course in human metabolism, emphasizing the function
and interaction of nutrients in metabolic and physiologic processes. A grade of
“C” must be attained in CHEM 111 and BIOL 330 before taking this course.
Pre: BIOL 330, CHEM 111, FCS 242
Spring

FCS 442 (3) Medical Nutrition Therapy I
The role and influence of dietetics in society, nutritional assessment and care plans,
dietetic principles applied to normal and malnourished states. Case-based approach.
Pre: FCS 440, HLTH 321
Fall

FCS 444 (3) Experimental Food Science
Food quality, safety, formulation, processing, preservation, and biotechnology are explored. Original food science experiments are planned, executed, interpreted, and presented using appropriate scientific techniques.
Pre: ENG 271W, FCS 340; HLTH 475
Spring

FCS 446 (3) Lifespan Nutrition
Study of nutritional needs of pregnancy, infancy, childhood, and adulthood. Expe-
rience in group dynamics in providing nutritional education to a target population.
Pre: FCS 140 or FCS 242
Fall

FCS 447 (3) Food Policy
The development, establishment, and execution of personal, local, federal and
global food issues are studied. A previous nutrition course is not required. Graduate
students, with the instructor, will develop an additional project, relating the student’s major interest to food policy.
Summer

FCS 448 (3) Medical Nutrition Therapy II
The pathophysiological, nutrient assessment, planning and counseling aspects of
biliary, surgical, endocrine, cardiovascular and renal conditions. Case-based approach.
Pre: FCS 442
Spring

FCS 454 (3) Experimental Food Science
Principles of sensory evaluation and application of those principles and other
food science by selecting, planning, conducting, and reporting on a food product
development project.
Pre: FCS 440
Winter

FCS 473 (3) Consumer Protection
Emphasizes the analyses and assessment of the effectiveness of consumer pro-
tection efforts. Emphasis will be placed on government laws, regulations, and
agencies at the federal, state and local levels.
Variable

FCS 474 (3) Community Resources and Family Support
The system approach to analyzing family situations to make decisions and
correlate resources in the resolution of family managerial problems. Emphasis on
the application of managerial skills to lifestyle situations: young families,
older adults, special needs, singles, and low income.
Spring

FCS 478 (3) Family Finance
Introduce students to the how’s and why’s of family financial management to
reduce mistakes made in successfully managing financial aspects of life. For
non-business majors.
Variable

FCS 482 (3) Teaching Family Life/Parenting Education
Analyze issues and concerns related to family life education. Investigate teaching
strategies and methods of evaluation. Preparation of appropriate lesson plans.
Fall

FCS 483 (3) Adult and Technical Education in Family Consumer Science
Study of the philosophy, objectives, and implementation of adult and technical
education for family consumer science professionals. Emphasis is placed on
the knowledge and skills which are necessary for the process and preparation of
delivering effective leader-led individual and group learning with concentra-
tion on methods, tools, and techniques employed in facilitating adult learning.
Fall, Spring

FCS 484 (4) Program Development in Family Consumer Science
Philosophy, scope/sequence, curriculum, evaluation and administration of family
consumer science educational programs for youth of varied abilities, interests,
and socioeconomics levels. 12 hour program clinical required.
Fall
FILM AND MEDIA STUDIES

Film and Media Studies
College of Arts and Humanities
Department of English
230 Armstrong Hall • 507-389-2117

Program Director (Film Studies): Donna Casella 507-389-5260
Program Director (Media Studies): Amy Lauters 507-389-5523

Chair: Matthew Sewell (English)
Chair: Mavis Richardson (Mass Media)

Faculty:
Film Studies: Donna Casella, Brandon Cooke, Najda Kramer, Steven Tybin, Matthew Sewell, Richard Terrill
Media Studies: Rachael Hanel, Amy Lauters, Chuck Lewis, Jane McConnell, Heather McIntosh, Ellen Mrja, Mavis Richardson

The Film and Media Studies Major is an undergraduate liberal arts program in the College of Arts and Humanities that teaches students to look at all aspects of media including: technical, creative, aesthetic, historical, theoretical and cultural perspectives. The program prepares students for careers as communicators, innovative creators of film and other media texts, and competent professionals in such fields as news, public relations, film production and other-media related fields. The degree also prepares students for graduate work in film and media studies.

Policies/Information
Admission to the Major is granted by the Program Directors. Please see one of the directors for information on admission procedures.

GPA Policy. Majors must earn a cumulative GPA of 2.5 or better in their major, in addition to the 2.0 overall GPA required by the University for graduation. A student must earn a "C" or better for a course to apply to their major; this includes the required general electives.

P/N Grading Policy. A course leading to a Film and Media Studies major may not be taken on a P/N basis, unless it is an Internship or an Independent Study not connected to the student’s Capstone Project.

Transfer Credit. The program accepts no more than 16 credits from other colleges and universities as transfer credits to be applied toward the major. They must be taken in courses that match or are the equivalent of courses that are offered in the program. Please consult the Program Directors on any transfer issues.

Internships. In addition to the two-credit Internship Option for the Capstone Project, students may take additional internship credits up to a total of six internship credits. Opportunities for film and media studies internships exist on and off campus for majors who want to work in a professional setting.

Additional Requirement. Students may not use any course in this major to meet the requirements of any other degree in the Mass Media or English departments.

Student Advising. Students are encouraged to consult the Program Directors on a regular basis for advice about course selection and career planning. Please see the Program Director in the area that matches your career interests: Film or Media Studies.

FILM AND MEDIA STUDIES BA

Required General Education
These credits do not count towards the major.

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Title</th>
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<tbody>
<tr>
<td>ENG 101</td>
<td>4</td>
<td>Composition</td>
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<tr>
<td>FILM 114</td>
<td>4</td>
<td>Introduction to Film</td>
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<tr>
<td>MASS 110</td>
<td>4</td>
<td>Introduction to Mass Media</td>
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Major Common Core

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<tr>
<th>Course</th>
<th>Credits</th>
<th>Title</th>
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<tbody>
<tr>
<td>FILM 210W</td>
<td>4</td>
<td>Film Genres</td>
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<tr>
<td>FILM 329</td>
<td>4</td>
<td>Film History</td>
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<td>FILM 416</td>
<td>4</td>
<td>Film Theory and Criticism</td>
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<tr>
<td>MASS 221W</td>
<td>4</td>
<td>Basic Writing for Mass Media</td>
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<tr>
<td>MASS 411</td>
<td>4</td>
<td>Mass Media Ethics and Criticism</td>
</tr>
<tr>
<td>MASS 412</td>
<td>4</td>
<td>Mass Media History</td>
</tr>
</tbody>
</table>

Capstone (choose 2 credits)
The 2-credit Capstone Project may be an internship either in film production or a mass media field, or an individual study involving either a creative portfolio (for example: short film, screenplay, multimedia web design) or a written critical paper of no less than 10 pages using the type of research and critical thinking expected in the student’s upper-division major classes. Students must consult one of the Program Directors about the design of their chosen project which typically is completed in their junior or senior year. Choose 2 credits of one of the following:
FILM 498 Internship (1-6)
FILM 499 Individual Study (1-4)
MASS 498 Mass Media Internship (2-4)
MASS 499 Individual Study in Mass Media (1-2)

**Major Restricted Electives**

**Group A (choose 8 credits)**
- MASS 312 Mass Media Law (4)
- MASS 325W Media Reporting and Editing (4)
- MASS 330W Writing for Digital Multimedia (4)
- MASS 334 Writing & Speaking for Broadcast (4)
- MASS 436W Specialized Writing (4)

**Group B (choose 8 credits)**
- ENG 446 Screenwriting Workshop (4)
- FILM 216W Writing About Film (4)
- FILM 217 Introduction to Film Production (4)
- FILM 317 Advanced Film Production (4)

**Group C (choose 4 credits)**
- MASS 233 Public Relations Principles (4)
- MASS 260 Principles of Visual Mass Media (4)
- MASS 351 Digital Imaging for Mass Media (4)
- MASS 360 Digital Design for Mass Media (4)
- MASS 434W Public Relations Writing (4)

**Group D (choose 4 credits)**
- Students taking PHIL 465 must add 1 credit of PHIL 499 (Individual Study) at the time they take this course in order to meet the 4 credit requirement for Group D.
- FILM 214 Topics in Film (1-4)
- FILM 334W International Cinema (4)
- FILM 493 Topics in Film Studies (1-4)
- GER 460 Topics in German Cinema (4)
- PHIL 465 Philosophy of Film (3)

**Other Graduation Requirements - Language (8 credits)**

**FILM STUDIES MINOR**

**Minor Core**
- FILM 114 Introduction to Film (4)
- FILM 329 Film History (4)
- FILM 416 Film Theory and Criticism (4)

**Minor Electives**

(choose 8 credits; 4 credits must be at the 300-400 level International film course)
- FILM 210W Film Genres (4)
- FILM 214 Topics in Film (1-4)
- FILM 216W Writing About Film (4)
- FILM 217 Introduction to Film Production (4)
- FILM 317 Advanced Film Production (4)
- FILM 334W International Cinema (4)
- FILM 493 Topics in Film Studies (1-4)
- GER 460 Topics in German Cinema (4)
- PHIL 465 Philosophy of Film (3)

**Course Descriptions**

**FILM 110 (4) Film Appreciation**
Promotes appreciation and understanding of cinema through the study of film style, film history, film genres, and the cultural impact of films.
Variable
GE-6

**FILM 114 (4) Introduction to Film**
Study and analysis of the elements basic to a critical understanding of film: story elements; visual design; cinematography and color; editing and special effects; functions of sound and music; styles of acting and directing; and functions of genre and social beliefs.
GE-6
The objective of the department is to prepare students for entry-level positions in the field of finance. Five areas of emphasis are available within this major.

The undergraduate finance program deals with the theory, organization and operations of the financial system from both the social and managerial perspectives. Students are expected to develop expertise in making organizational and personal judgments and decisions involving financial data. Additionally, students present their analyses in both written and oral form.

Students may select and complete one or more of the following emphases: Corporate Finance, Financial Planning and Insurance, General Finance, Investment Analysis, and Institutional Finance

POLICIES/INFORMATION

Admission to a Major in the College of Business. Admission to a major in the College of Business typically occurs at the beginning of the student’s junior year. Once admitted, students may choose to pursue a degree in one or more of the following majors: Accounting, Finance, International Business, Management, or Marketing. Multiple criteria will be considered for admission to a major in the College of Business. Admission is competitive; meeting minimum requirements does not guarantee admission. Deadlines for application are: October 1 for Spring Semester and March 1 for Fall Semester.

Criteria Considered for Admission to the Finance Major
1. Cumulative (including Transfer) Grade Point Average: minimum 2.7
2. Credits and Courses: 33 completed credits of the 44 general education requirements.
3. Completion of the following courses: IT 101, MATH 130, ACCT 200, ACCT 210, BLAW 200, MGMT 200, BUS 295, ECON 201, ECON 202, ECON 207. Complete one of the following courses: PHIL 120W, PHIL 205W, PHIL 222W, PHIL 224W, PHIL 226W, PHIL 240W.

Academic Advising. Students will initially receive their advising from the professional advisors in the College of Business Advising Center. When a student applies to the College of Business, he/she will be assigned a faculty advisor in the major area of study. Questions regarding the assignment of advisors can be answered in the College of Business Advising Center, 151 Morris Hall, 507-389-2963.

College of Business Laptop Program. Students enrolled in College of Business courses numbered 200 and above are required to have a laptop computer. For further information, please visit the College website at www.cob.mnsu.edu.

College of Business Policies. Students who are business minors, non-business majors or those who are not seeking a four year degree may take up to 24 credits in the College of Business. Students must be admitted to the College of Business to be granted a Bachelor of Science degree in any College of Business major.

Residency. Transfer students must complete a minimum of 30 resident credits at the upper division (300-400) level in the College of Business at Minnesota State Mankato.

Transfer students pursuing a major or minor in the College of Business must complete at least 50% (one-half) of their major or minor coursework at Minnesota State Mankato.

No more than three of the required nine courses in a track may be transferred from another university and be applied toward the Finance degree, if a student is to be awarded a degree in finance from Minnesota State Mankato.

GPA Policy. Students must earn a minimum grade point average of 2.0 ("C") on the total courses taken in the College of Business and a 2.25 overall GPA to meet graduation requirements.

P/N Grading Policy. No more than one-fourth of a student’s major shall consist of P/N grades.

Assessment Policy. The College of Business believes that the ongoing assessment of its programs makes a vital contribution to the quality of those programs and to student learning. Student participation is an important and expected part of the assessment process.

Internships. Students are encouraged to participate in business and industrial organizations through internship programs. Internships are available during the junior and senior years. Students interested in internships should interview early with the internship coordinator for enrollment in this program.

Student Organizations. The Finance Club provides students with a direct link to professionals employed in finance positions. This is a professional and social club and all majors are welcome. Delta Sigma Pi is a coeducational business fraternity organized to further the camaraderie of business students and professionals. Delta Sigma Pi provides members the opportunity to network with current business students and alumni throughout the United States.

The Council of Student Business Organizations (COSBO), which is comprised of the presidents of nine organizations and the college representative to the Student Senate, works directly with the Dean’s office in the coordination of activities of the various organizations and sponsors activities of their own.

FINANCE BS
Degree completion = 120 credits

Required General Education
ECON 201 Principles of Macroeconomics (3)
ECON 202 Principles of Microeconomics (3)
MATH 130 Finite Mathematics and Introductory Calculus (4)

Ethics (choose 3 credits)
PHIL 120W Introduction to Ethics (3)
PHIL 205W Culture, Identity, and Diversity (3)
PHIL 222W Medical Ethics (3)
PHIL 224W Business Ethics (3)
PHIL 226W Environmental Ethics (3)
PHIL 240W Law, Justice & Society (3)

Pre-requisites to the Major
ACCT 200 Financial Accounting (3)
ACCT 210 Managerial Accounting (3)
BLAW 200 Legal, Political and Regulatory Environmental of Business (3)
BUS 295 Professional Preparation for Business Careers (2)
ECON 207 Business Statistics (4)
FINA 201 Orientation to College of Business Majors (0)
IT 101 Introduction to Information Systems (3)
MGMT 200 Introduction to MIS (3)

Major Common Core (Required of all College of Business Majors) (choose 18 credits)
FINA 362 Business Finance (3)
IBUS 380 Principles of International Business (3)
MGMT 330 Principles of Management (3)
MGMT 346 Production and Operations Management (3)
MGMT 481 Business Policy and Strategy (3)
MRKT 310 Principles of Marketing (3)

Required Finance Major (Required of all Finance Majors)
FINA 460 Investments (3)
FINA 462 Strategic Financial Management (3)
FINA 464 Financial Institutions and Markets (3)
FINA 467 Insurance and Risk Management (3)
Major Emphasis - CORPORATE FINANCE

ACCT 300 Intermediate Financial Accounting I (3)
ACCT 310 Management Accounting I (3)
FINA 461 Advanced Corporate Finance (3)
Electives (choose 6-12 credits)

Choose two of the following, at least one being FINA, for a total of at least 6 credits. Students who register for FINA 493 should register for 3 credits each time they register for the course.

ACCT 301 Intermediate Financial Accounting II (3)
ACCT 311 Management Accounting II (3)
ACCT 320 Accounting Information Systems (3)
ACCT 330 Individual Income Tax (3)
ACCT 410 Business Income Tax (3)
BUS 397 IBE Practicum (3)
ECON 463 Applied Econometrics of Financial Markets (3)
FINA 463 Security Analysis (3)
FINA 469 International Business Finance (3)
FINA 480 Options and Futures (3)
FINA 493 Maverick Fund (1-6)
FINA 498 Internship (3)

Major Emphasis - FINANCIAL PLANNING AND INSURANCE

ACCT 410 Business Income Tax (3)
BUS 397 IBE Practicum (3)
ECON 463 Applied Econometrics of Financial Markets (3)
FINA 458 Estate Planning (3)
FINA 463 Security Analysis (3)
FINA 466 Employee Benefit Planning (3)
FINA 477 Real Estate (3)
FINA 480 Options and Futures (3)
FINA 493 Maverick Fund (1-6)
FINA 498 Internship (3)

Major Emphasis - GENERAL FINANCE

(choose five of the following, three of which must be FINA courses, for a total of at least 15 credits. Students who register for FINA 493 should register for 3 credits each time they register for the course.)

ACCT 300 Intermediate Financial Accounting I (3)
ACCT 301 Intermediate Financial Accounting II (3)
ACCT 310 Management Accounting I (3)
ACCT 311 Management Accounting II (3)
ACCT 330 Individual Income Tax (3)
ACCT 410 Business Income Tax (3)
FINA 362 Business Finance (3)
FINA 458 Estate Planning (3)
FINA 459 Personal Financial Planning (3)
FINA 461 Advanced Corporate Finance (3)
FINA 463 Security Analysis (3)
FINA 466 Employee Benefit Planning (3)
FINA 469 International Business Finance (3)
FINA 477 Real Estate (3)
FINA 478 Real Estate Investment (3)
FINA 480 Options and Futures (3)
FINA 493 Maverick Fund (1-6)
FINA 498 Internship (3)
MRKT 412 Professional Selling (3)

Major Emphasis - INSTITUTIONAL FINANCE

FINA 461 Advanced Corporate Finance (3)
FINA 463 Security Analysis (3)
FINA 482 Commercial Bank Management (3)
Electives (choose 6-12 credits)

(choose two courses, at least one being FINA, for a total of at least 6 credits. Students who register for FINA 493 should register for 3 credits each time they register for the course.)

ACCT 300 Intermediate Financial Accounting I (3)
ACCT 301 Intermediate Financial Accounting II (3)
BUS 397 IBE Practicum (3)
ECON 463 Applied Econometrics of Financial Markets (3)
FINA 469 International Business Finance (3)
FINA 470 Personal Insurance (3)
FINA 477 Real Estate (3)
FINA 478 Real Estate Investment (3)
FINA 480 Options and Futures (3)
FINA 493 Maverick Fund (1-6)
FINA 498 Internship (3)

Major Emphasis - INVESTMENT ANALYSIS

Students who register for FINA 493 should register for 3 credits each time they register for the course.

ACCT 300 Intermediate Financial Accounting I (3)
ACCT 330 Individual Income Tax (3)
BUS 397 IBE Practicum (3)
ECON 463 Applied Econometrics of Financial Markets (3)
FINA 459 Personal Financial Planning (3)
FINA 466 Employee Benefit Planning (3)
FINA 469 International Business Finance (3)
FINA 470 Personal Insurance (3)
FINA 477 Real Estate (3)
FINA 478 Real Estate Investment (3)
FINA 498 Internship (3)

Required Minor: None.

FINANCIAL PLANNING MINOR

Minor Core
FINA 459 Personal Financial Planning (3)
FINA 467 Insurance and Risk Management (3)
(choose 3 credits)
FINA 100 Personal Financial Management (3)
FINA 362 Business Finance (3)

Minor Electives (choose 9 credits)
(choose at least three of the following courses)
ACCT 330 Individual Income Tax (3)
FINA 458 Estate Planning (3)
FINA 460 Investments (3)
FINA 463 Security Analysis (3)
FINA 464 Financial Institutions and Markets (3)
FINA 466 Employee Benefit Planning (3)
FINA 470 Personal Insurance (3)
FINA 477 Real Estate (3)
FINA 478 Real Estate Investment (3)
FINA 498 Internship (3)
MRKT 412 Professional Selling (3)

COURSE DESCRIPTIONS

BUS 100 (3) Introduction to Business and Business Careers
This course prepares students for success by exposing them to the requirements, expectations, resources and opportunities of the COB. Students will have business experiences and will develop professional skills.

Variable
FINANCE CONTINUED

BUS 397 (3) IBE Practicum
An applied course that entails developing, launching, managing, and closing a business with the cohort of students enrolled in the class. Students write and present a business plan as they seek financing for their start-up company. The business start-up experience creates a real-world context in which students can practice the concepts introduced in MGMT 330, MRKT 310, and FINA 362. BUS 397 is part of the United Prairie Bank Integrated Business Experience, and students must enroll concurrently in BUS 397 and sections of FINA 362, MGMT 330, and MRKT 310 that are designated for IBE students. Pre: Must be admitted to the College of Business Coreq: FINA 362, MGMT 330, MRKT 310 Fall, Spring

FINA 100 (3) Personal Financial Management
Fundamental concepts of managing cash flows: preparation of personal budget, personal debt management, financial goal establishment, savings and investments, insurance. Variable

FINA 362 (3) Business Finance
An introduction to finance relating to problems, methods, and policies in financing business enterprise. Pre: ACCT 200, Jr. Standing Fall, Spring

FINA 372 (3) Special Topics in Finance
Current topics of significance in Finance. May be repeated repeated for credit. Fall (On-Demand), Spring (On-Demand), Summer (On-Demand)

FINA 398 (0) CPT: Co-Operative Experience
Curricular Practical Training: Co-Operative Experience is a zero-credit full-time practical training experience for one summer and on adjacent fall or spring term. Special rules apply to preserve full-time student status. Please contact an advisor in your program for complete information. Pre: FINA 201. At least 60 credits earned; in good standing; instructor permission; co-op contract; other prerequisites may also apply. Fall, Spring, Summer

FINA 458 (3) Estate Planning
Principles and techniques for estate planning. Examination of various retirement plans available, and the legal and tax environment impacting an estate’s portfolio. Pre: FINA 100 or FINA 362 Fall

FINA 459 (3) Personal Financial Planning
Fundamental concepts of personal financial management: insurance, budgeting, credit, savings, investments, retirement and estate planning, and consumer debt management. Pre: ACCT 330 or ACCT 411, FINA 460, FINA 467 Spring

FINA 460 (3) Investments
Formulation of investment policy of individuals and institutions, factors influencing the values of securities, and techniques of portfolio selection and management. Pre: FINA 362 Fall, Spring

FINA 461 (3) Advanced Corporate Finance
This course encompasses advanced principles and concepts concerning the nature and types of debt financing, the valuation and use of leases, the process and tools of risk management, the calculation and estimation of financial ratios, the financial planning and forecasting processes, and the understanding of working capital. Pre: FINA 362 Fall

FINA 462 (3) Strategic Financial Management
Applications of financial principles and analytical tools through the use of case studies and problems from local businesses. Pre: FINA 362 Fall, Spring

FINA 463 (3) Security Analysis
Tools and techniques to aid in individual and institutional portfolio management. Pre: FINA 362 and FINA 460 Spring

FINA 464 (3) Financial Institutions and Markets
Introduction to money and capital markets, instruments and institutions. Consideration of the management problems of financial institutions. Pre: FINA 362 Fall, Spring

FINA 466 (3) Employee Benefit Planning
Fundamental concepts of employee benefits in relation to pertinent legislation, modern management techniques, and financial constraints that affect the formulation and implementation of a benefit plan. Pre: FINA 100 or FINA 362 Spring

FINA 467 (3) Insurance and Risk Management
Examination of the fundamentals of the insurance industry; the risk management process; and commercial insurance exposures and policies including commercial property, general liability, and workers’ compensation. Fall, Spring

FINA 468 (3) Commercial Property/Liability Insurance
Principles and practices of risk management in the recognition and treatment of exposure to potential financial loss and with primary emphasis on property and liability insurance for individuals and families. Pre: FINA 467 Variable

FINA 469 (3) International Business Finance
Financing investments and working capital management problems in multinational environments. Pre: FINA 362 Variable

FINA 470 (3) Personal Insurance
Examination of personal insurance exposures and policies including auto, health, home, and life. Pre: FINA 467 Fall

FINA 476 (3) Real Estate Appraisal
Principles and techniques of real estate valuation. The market, cost and income methods for the basic structure of the course. A professional appraisal report is required. Pre: FINA 362 Variable

FINA 477 (3) Real Estate
Fundamental principles: valuation, brokerage, financing, law, property management, land descriptions and basic investment. Pre: FINA 100 or FINA 362 Variable

FINA 478 (3) Real Estate Investment
Property productivity analysis utilizing discount cash flow methodology, urban growth and taxation factors, and economic base analysis. Pre: FINA 362 Variable

FINA 479 (3) Executive Lectures
Guest lecturers and discussions with students by visiting senior executives of major companies coordinated by faculty. The course will include analysis of several individual companies. May be repeated.

FINA 480 (3) Options and Futures
Trading practices and procedures utilizing these contracts in hedging and risk management policies for business. Pre: FINA 362 Fall

FINA 482 (3) Commercial Bank Management
FINA 491 (1-4) In-Service
Fall, Spring

FINA 492 (1-3) Study Tour
Study tours are led by Minnesota State University, Mankato faculty and provide students with opportunities to visit companies and attend lectures by renowned experts from key sectors of economy, government, and business.
Pre: Permission Required
Variable

FINA 493 (1-6) Maverick Fund
Students are responsible for generating investment ideas consistent with the Maverick Fund Investment Policy Statement.
Pre: FINA 362. Permission required. Students must apply to take this course and selected applicants will be granted permission to register. Application information and forms are available at http://cob.mnsu.edu/finc/.
Coreq: FINA 460
Fall, Spring

FINA 497 (1-9) Internship
Supervised experience in business, industry, state or federal institutions.
Pre: Permission Required
Fall, Spring

FINA 498 (3) Internship
Supervised experience in business, industry, state or federal institutions.
Pre: Permission Required
Fall, Spring

FINA 499 (1-3) Individual Study
Pre: Permission Required
Fall, Spring

First Year Experience
103 Preska Residence Community • 507-389-5498
Director: Nicole Stock

Food Science Technology
College of Science, Engineering & Technology
Department of Biological Sciences
242 Trafton Science Center S • 507-389-2786
Program Director: Dorothy Wrigley, Ph.D. (Biology)
Faculty: Joye Bond, Ph.D. (Family and Consumer Science); Mary Hadley, Ph.D. (Chemistry); Gregg Marg, Ph.D. (Biology); Dorothy Wrigley, Ph.D. (Biology).

Recent outbreaks of food borne disease and concern for safe food products for consumers is driving the market for individuals with a degree in Food Science Technology. Graduates can expect to find employment within the food industry and testing laboratories or government laboratories. These positions require a diversified training in both foods and sciences, especially microbiology, nutrition, and chemistry. This undergraduate major is easily adapted for students wanting to continue into graduate education.

POLICIES/INFORMATION
Admission to major is granted by the Department of Biology and follows minimum University admission requirements:
- a minimum of 32 earned semester credits hours
- a minimum cumulative GPA of 2.00

GPA Policy. A minimum GPA of 2.00 must be maintained in the major.

P/N Grading Policy. All courses in the major must be taken for grade.

FOOD SCIENCE TECHNOLOGY BS
Degree completion = 120 credits

Required General Education
BIOL 105 General Biology I (4)

STAT 154 Elementary Statistics (3)
MATH (choose 4 credits) Math 121 Calculus is strongly suggested if graduate study is intended.
MATH 112 College Algebra (4)
MATH 115 Precalculus Mathematics (4)
MATH 121 Calculus I (4)

Prerequisites to the Major
BIOL 220 General Chemistry I (5)
CHEM 201 General Chemistry II (5)
CHEM 202 General Chemistry II (5)
CHEM 305 Analytical Chemistry (4)
CHEM 322 Organic Chemistry I (4)
CHEM 323 Supplemental Organic Functional Group Chemistry (1)
CHEM 360 Principles of Biochemistry (4)
ENG 271W Technical Communication (4)
FCS 150 Food, Culture and You (3)
FCS 242 Nutrition for Healthcare Professionals (3)
FCS 340 Food Science (4)
FCS 444 Experimental Food Science (3)
Pрактик (choose 2-4 credits) (choose 2 credits from the following)
BIOL 497 Internship I (1-12)
BIOL 499 Individual Study (1-4)

Major Restricted Electives (choose 1 course)
BIOL 452 Biological Instrumentation (3)
BIOL 467 Industrial Hygiene (3)

Required Minor: None.
French

College of Arts & Humanities
Department of World Languages & Cultures
227 Armstrong Hall • 507-389-2116
Website: www.mnsu.edu/languages

Chair: Gregory Taylor
Faculty: Evan Bibbee

Studying French provides insight into the literature and culture of France and other French-speaking countries. It also gives students a knowledge of language that enables them to work and travel in areas of the world where French is spoken. To facilitate these goals, the department sponsors a summer program in France. Students choosing to take advantage of this study-abroad opportunity, or who acquire language experience on their own initiative, may receive credit if arrangements are made in advance.

Communicate in Languages Other Than English
Standard 1.1: Students engage in conversations, provide and obtain information, express feelings and emotions, and exchange opinions.
Standard 1.2: Students understand and interpret written and spoken language on a variety of topics.
Standard 1.3: Students present information, concepts, and ideas to an audience of listeners or readers on a variety of topics.

Gain Knowledge and Understanding of Other Cultures
Standard 2.1: Students demonstrate an understanding of the relationship between the practices and the context of the culture studied.
Standard 2.2: Students demonstrate an understanding of the relationship between the products and perspectives of the culture studied.

Connect with Other Disciplines and Acquire Information
Standard 3.1: Students reinforce and further their knowledge of other disciplines through the foreign language.
Standard 3.2: Students acquire information and recognize the distinctive viewpoints that are only available through the foreign language and its cultures.

Develop Insight into the Nature of Language and Culture
Standard 4.1: Students demonstrate understanding of the nature of language through comparisons of the language studied and their own.
Standard 4.2: Students demonstrate understanding of the concept of culture through comparisons of the cultures studied and their own.

Participate in Multilingual Communities at Home & Around the World
Standard 5.1: Students use the language both within and beyond the school setting.
Standard 5.2: Students show evidence of becoming life-long learners by using the language for personal enjoyment and enrichment.

POLICIES/INFORMATION

Admission to Major is granted by the department. Minimum University admission requirements are:
- a minimum of 32 earned semester credit hours.
- a minimum cumulative GPA of 2.00 ("C").
Contact the department for application procedures.

GPA Policy. A grade of "C-" or better must be earned for major or minor credit.

P/N Grading Policy. Work done for a major or minor must be done for a letter grade beyond the second-year level. A grade of P must be earned for major or minor credit in all work done on a P/N basis.

Proficiency Policies. Students who wish to receive credit by examination may take tests to have their proficiency evaluated. Students may not take a proficiency test for a course in which they are enrolled. The department reserves the right to deny admission to courses for those students whom a faculty member determines to have mastered the material already.

FRENCH BA
Degree completion = 120 credits

Prerequisites to Major Elementary French - (choose 2-10 credits)
FREN 101 Elementary French I (5)
FREN 102 Elementary French II (5)
FREN 200 Entry-Level Intermediate French (2-4)

Major Common Core
Language (choose 11-21 credits)
FREN 302W Composition (2-4)
FREN 323 French Phonetics and Applied Linguistics (2-4)
FREN 350 Introduction to French Literature (3)
FREN 366 Oral Communication (2-6)
FREN 404 French Syntax (2-4)

Literature (choose 4-15 credits)
FREN 420 French Seminar (1-3)
FREN 432 French Literature I (3-4)
FREN 442 French Literature II (3-4)
FREN 452 French Literature III (3-4)

Civilization (choose 3-4 credits)
FREN 305 France Today (3-4)
FREN 402 French Civilization (3-4)

Major Restricted Electives (choose 1-12 credits)
FREN 201 Intermediate French I (4)
FREN 202 Intermediate French II (4)
FREN 204 Advanced Intermediate French (2-4)
FREN 211 Intermediate Readings (1-3)
FREN 214 Paris et L’ILE de France (1-3)
FREN 215 Composition (1-3)
FREN 216 Conversation (1-4)
FREN 217 Modern France (1-3)
FREN 218 On Y Va (1)
FREN 261 Conversation & Pronunciation (1-3)
FREN 293 Supervised Study in French-Speaking Countries (1-6)
FREN 299 Individual Study (1-4)
FREN 301 Third Year Vocabulary Review (3)
FREN 302 Composition (2-4)
FREN 302W Composition (2-4)

Fulfilling BA Language Requirement. Students who wish to validate the BA Language requirement for previous study in French, German, Spanish, Swedish or Norwegian may do so by taking a credit by exam (see above section). Students do not meet the BA language requirement merely because they have taken two years of high school language.

Residency Requirement. Transfer credits will be applied only if they are the equivalent of work offered by the Department of World Languages & Cultures for the major or minor in that language. In addition, a minimum of work must be taken at Minnesota State Mankato as follows: Major: a minimum of three upper division courses other than Independent or Individual Study, for a total of at least 8 credits. At least two of these courses must be at the 400 level. Minor: a minimum of two upper division courses other than Independent or Individual Study, for a total of at least six credits.

Courses not required for a student’s specific baccalaureate degree should be chosen according to these general guidelines:
- BA:
  Emphasis on literature in upper-division courses; students will most likely pursue their education beyond the baccalaureate level.
- BS:
  Emphasis on the ability to communicate in the language; presupposes knowledge of culture and civilization; students frequently have career goals in other disciplines for which a language is either required or recommended.

- BS French Education:
  Emphasis on communication (four skills plus culture and language analysis).
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**Required Minor:** Yes. Any.

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**FRENCH BS**

Degree completion = 120 credits

**Prerequisites to Major (Elementary French)** - (choose 2-10 credits)
- FREN 101 Elementary French I (5)
- FREN 102 Elementary French II (5)
- FREN 200 Entry-Level Intermediate French (2-4)

**Major Common Core**

**Language** (choose 11-21 credits)
- FREN 302W Composition (2-4)
- FREN 323 French Phonetics and Applied Linguistics (2-4)
- FREN 350 Introduction to French Literature (3)
- FREN 366 Oral Communication (2-6)
- FREN 404 French Syntax (2-4)

**Literature** (choose 4-15 credits)
- FREN 420 French Seminar (1-3)
- FREN 432 French Literature I (3-4)
- FREN 442 French Literature II (3-4)
- FREN 452 French Literature III (3-4)

**Civilization** (choose 3-4 credits)
- FREN 305 France Today (3-4)
- FREN 402 French Civilization (3-4)

**Major Restricted Electives** (choose 1-9 credits)
- FREN 211 Intermediate Readings (1-3)
- FREN 214 Paris et L’ILE de France (1-3)
- FREN 215 Composition (1-3)
- FREN 216 Conversation (1-4)
- FREN 217 Modern France (1-3)
- FREN 218 On Y Va (1)
- FREN 261 Conversation & Pronunciation (1-3)
- FREN 293 Supervised Study in French-Speaking Countries (1-6)
- FREN 299 Individual Study (1-4)
- FREN 301 Third Year Vocabulary Review (3)

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**FRENCH BS, TEACHING**

Degree completion = 120 credits

**Prerequisites to Major Elementary French** (choose 2-10 credits)
- FREN 101 Elementary French I (5)
- FREN 102 Elementary French II (5)
- FREN 200 Entry-Level Intermediate French (2-4)

**Major Common Core**

**Language** (choose 11-21 credits)
- FREN 302W Composition (2-4)
- FREN 323 French Phonetics and Applied Linguistics (2-4)
- FREN 350 Introduction to French Literature (3)
- FREN 366 Oral Communication (2-6)
- FREN 404 French Syntax (2-4)

**Literature** (choose 4-15 credits)
- FREN 420 French Seminar (1-3)
- FREN 432 French Literature I (3-4)
- FREN 442 French Literature II (3-4)
- FREN 452 French Literature III (3-4)

**Civilization** (choose 3-4 credits)
- FREN 305 France Today (3-4)
- FREN 402 French Civilization (3-4)

**Methods** (choose 8 credits)
- WLC 460 Methods of Teaching Modern Language (3)
- WLC 461 Applied Modern Language Teaching Methods (1)
- WLC 462 Foreign Language Elementary School (FLES) Methods (3)
- WLC 463 Applied (FLES) Methods (1)

**Major Restricted Electives** (choose 1 credit)
- FREN 201 Intermediate French I (4)
- FREN 202 Intermediate French II (4)
- FREN 204 Advanced Intermediate French (2-4)
- FREN 211 Intermediate Readings (1-3)
- FREN 214 Paris et L’ILE de France (1-3)
FREN 215 Composition (1-3)
FREN 216 Conversation (1-4)
FREN 217 Modern France (1-3)
FREN 218 On Y Va (1)
FREN 261 Conversation & Pronunciation (1-3)
FREN 293 Supervised Study in French-Speaking Countries (1-6)
FREN 299 Individual Study (1-4)
FREN 301 Third Year Vocabulary Review (3)
FREN 302 Composition (2-4)
FREN 302W Composition (2-4)
FREN 304 Third Year Grammar Review (3)
FREN 305 France Today (1-4)
FREN 313 Third Year French (1-4)
FREN 314 Paris et L'IILE de France (1-3)
FREN 315 Composition (1-3)
FREN 316 Conversation (1-4)
FREN 317 Modern France (1-3)
FREN 318 Introduction to Business French (1-4)
FREN 320 French Seminar (1-3)
FREN 322 Listening Comprehension and Pronunciation (1-3)
FREN 323 French Phonetics & Applied Linguistics (2-4)
FREN 350 Introduction to French Literature (3)
FREN 366 Oral Communication (1-6)
FREN 393 Supervised Study in French-Speaking Countries (1-6)
FREN 402 French Civilization (3-4)
FREN 404 French Syntax (2-4)
FREN 405 Business French I (2-4)
FREN 406 Business French II (2-4)
FREN 414 Paris et L'IILE de France (1-3)
FREN 415 Composition (1-3)
FREN 416 Conversation (1-4)
FREN 417 Modern France (1-3)
FREN 420 French Seminar (1-4)
FREN 432 French Literature I (1-4)
FREN 442 French Literature II (1-4)
FREN 452 French Literature III (1-4)
FREN 492 Individual Study (1-4)
FREN 494 Supervised French Study (1-6)
FREN 497 Internship (1-6)
FREN 499 Individual Study (1-4)

Required for Major. Students must demonstrate intermediate-high level speaking proficiency as defined in the ACTFL Proficiency Guidelines established by the American Council on the Teaching of Foreign Languages or equivalent. Contact department for details. Also required for the major are first-hand experiences with the target cultures.

Required for Major (Professional Education, 30 credits)
See the SECONDARY EDUCATION section for admission requirements to Professional Education and a list of required professional education courses.

Required Minor: None.

FRENCH MINOR

Required for Minor (Core, 24 credits)
Elementary French or other proof of skill is needed.
Intermediate sequence counts toward the minor.
FREN 302W Composition (2-4)
FREN 323 French Phonetics and Applied Linguistics (2-4)
FREN 350 Introduction to French Literature (3)
FREN 366 Oral Communication (2-6)
FREN 404 French Syntax (2-4)
(choose one course from the following)
FREN 305 France Today (3-4)
FREN 402 French Civilization (3-4)

Required for Major.

Required for Major (Professional Education, 30 credits)
See the SECONDARY EDUCATION section for admission requirements to Professional Education and a list of required professional education courses.

Required Minor: None.

FRENCH CONTINUED

Required for Major.

Required for Major (Professional Education, 30 credits)
Required Minor: None.

FRENCH MINOR

Required for Minor (Core, 24 credits)
Elementary French or other proof of skill is needed.
Intermediate sequence counts toward the minor.
FREN 302W Composition (2-4)
FREN 323 French Phonetics and Applied Linguistics (2-4)
FREN 350 Introduction to French Literature (3)
FREN 366 Oral Communication (2-6)
FREN 404 French Syntax (2-4)
(choose one course from the following)
FREN 305 France Today (3-4)
FREN 402 French Civilization (3-4)

COURSE DESCRIPTIONS

FREN 101 (5) Elementary French I
An introduction, within a cultural context, to the basic skills of listening, speaking, reading and writing.
GE-8

FREN 102 (5) Elementary French II
An introduction, within a cultural context, to the basic skills of listening, speaking, reading and writing.
Pre: FREN 101 or equivalent
GE-8

FREN 201 (4) Intermediate French I
Grammar review, oral practice, written composition and development of reading and listening skills within a cultural context.
Pre: One year university French or equivalent
GE-8

FREN 202 (4) Intermediate French II
Grammar review, oral practice, written composition and development of reading and listening skills within a cultural context.
Pre: FREN 201 or equivalent
GE-8

FREN 214 (1-3) Paris et L’IILE de France
Visits to the major churches, cathedrals, castles, monuments, museums and neighborhoods in and around Paris.
Pre: FREN 101, FREN 102, or equivalent

FREN 216 (1-4) Conversation
Practice in intermediate-level conversational skills.
Pre: FREN 101, FREN 102, or equivalent

FREN 217 (1-3) Modern France
Introduction to contemporary French civilization.
Pre: FREN 101, FREN 102, or equivalent

FREN 218 (1) On y va
Preparation for study in France.

FREN 261 (1-3) Conversation & Pronunciation
Systematic development of conversational idiom and vocabulary. Intensive work on pronunciation. May be taken by majors and minors up to three times.
Pre: FREN 201, FREN 202, or equivalent

FREN 293 (1-6) Supervised Study in French-Speaking Countries
Topics will vary. Study for credit must be approved by the department prior to departure.
Pre: FREN 101, FREN 102, or equivalent

FREN 299 (1-4) Individual Study
Topics will vary.

FREN 301 (3) Third-Year Vocabulary Review
Systematic review of French vocabulary.
Pre: FREN 201, FREN 202, or equivalent

FREN 302W (2-4) Composition
Review of grammar and vocabulary. Practice in descriptive, narrative, and expository prose.
Pre: FREN 201, FREN 202, or equivalent
WI

FREN 304 (3) Third-Year Grammar Review
Systematic review of French grammar.
Pre: FREN 201, FREN 202, or equivalent
FREN 305 (1-4) France Today
Social, political, and economic trends in contemporary France.  
Pre: FREN 201, FREN 202, or equivalent

FREN 314 (1-3) Paris et l’Île de France
Visits to the major churches, cathedrals, castles, monuments, museums and neighborhoods in and around Paris.  
Pre: FREN 201, FREN 202, or equivalent

FREN 315 (1-3) Composition  
Practice in descriptive and narrative prose. Acquisition of grammatical structures and vocabulary beyond the intermediate sequence.  
Pre: FREN 201, FREN 202, or equivalent

FREN 316 (1-4) Conversation  
Practice in conversational skills.  
Pre: FREN 201, FREN 202, or equivalent

FREN 317 (1-3) Modern France  
Introduction to contemporary French civilization.  
Pre: FREN 201, FREN 202, or equivalent

FREN 318 (1-4) Introduction to Business French  
Introduction to basic concepts associated with French business practices.  
Pre: FREN 201, FREN 202, or equivalent

FREN 322 (1-3) Listening Comprehension and Pronunciation  
Development of listening comprehension and pronunciation through the use of tapes, videos, films, compact discs, and other recorded materials.  
Pre: FREN 201, FREN 202, or equivalent

FREN 323 (2-4) French Phonetics & Applied Linguistics  
A study of the sound system in French. Intensive oral practice.  
Pre: FREN 201, FREN 202, or equivalent

FREN 350 (3) Introduction to French Literature  
A beginning literature course designed to teach students to read with understanding and critical ability.  
Pre: FREN 201, FREN 202, or equivalent

FREN 366 (1-6) Oral Communication  
Intensive practice in advanced conversational skills. May be repeated for credit.  
Pre: FREN 201, FREN 202, or equivalent

FREN 393 (1-6) Supervised Study in French-Speaking Countries  
Topics will vary. Study for credit must be approved by the department prior to departure.  
Pre: FREN 201, FREN 202, or equivalent

FREN 402 (3-4) French Civilization  
Survey of historical, philosophical, literary and artistic development of France from the beginning to the present.  
Pre: FREN 201, FREN 202, or equivalent

FREN 404 (2-4) French Syntax  
Systematic review of French grammar.  
Pre: FREN 201, FREN 202, or equivalent

FREN 405 (2-4) Business French I  
Study of current vocabulary, terminology and practices used in the business world. Study of developments affecting the French business, industrial and agricultural communities.  
Pre: FREN 201, FREN 202, or equivalent

FREN 406 (2-4) Business French II  
Study of France’s position in the European Economic Community and of the development of French business law with emphasis on the obligations and rights of business people, the classification and organization of the various types of companies, the emission of contracts and other documents.  
Pre: FREN 201, FREN 202, or equivalent

FREN 414 (1-3) Paris et l’Île de France  
Visits to the major churches, cathedrals, castles, monuments, museums and neighborhoods in and around Paris.  
Pre: FREN 201, FREN 202, or equivalent

FREN 416 (1-4) Conversation  
Practice in advanced conversation skills.  
Pre: FREN 201, FREN 202, or equivalent

FREN 417 (1-3) Modern France  
In-depth study of different aspects of contemporary French civilization.  
Pre: FREN 201, FREN 202, or equivalent

FREN 420 (1-4) French Seminar  
In-depth study of an author, genre, movement, theme or period.  
Pre: FREN 201, FREN 202, or equivalent

FREN 432 (1-4) French Literature I  
A study of the major authors, works and movements of two successive centuries of French literature.  
Pre: FREN 201, FREN 202, or equivalent

FREN 442 (1-4) French Literature II  
A study of the major authors, works and movements of two successive centuries of French literature.  
Pre: FREN 201, FREN 202, or equivalent

FREN 452 (1-4) French Literature III  
A study of the major authors, works and movements of two successive centuries of French literature.  
Pre: FREN 201, FREN 202, or equivalent

FREN 492 (1-4) Individual Study  
Topics will vary.  
Pre: FREN 201, FREN 202, or equivalent

FREN 494 (1-6) Supervised French Study  
Topics will vary. Study for credit must be approved by the department prior to departure.  
Pre: FREN 201, FREN 202, or equivalent

FREN 497 (1-6) Internship  
Pre: FREN 201, FREN 202, or equivalent

FREN 499 (1-4) Individual Study  
Pre: FREN 201, FREN 202, or equivalent
Gender and Women’s Studies

College of Social & Behavioral Sciences
Department of Gender and Women’s Studies
109 Morris Hall • 507-389-2077
Website: http://sbs.mnsu.edu/women/

Chair: Shannon Miller
Laura Harrison

The Department of Gender and Women’s Studies familiarizes students with interdisciplinary feminist perspectives through coursework, internships, research, and activism. Students learn to examine the historical, social, psychological, political, economic, and cultural dimensions of gender, while gaining a more complex understanding of the construction of gender and its intersection with other categories of difference, power, and inequality. By understanding how interlocking systems of oppression function locally and internationally, students will be better situated to apply their critical thinking skills as they work toward social justice in a global society.

The department supports a variety of opportunities for personal and professional development, including a student club and honor society, community and teaching internships, workshops and conferences, and cultural events. Students are encouraged to take leadership roles in the development of special programs and to become actively involved with community and campus-based activist groups, applying feminist theory to the practice of empowering women and creating social change.

POLICIES/INFORMATION

Admission to Major is granted by the department. Admission requirements are:
- a minimum of 32 earned semester credit hours.
- a minimum cumulative GPA of 2.00 (“C”).
Contact the department for application procedures.

GPA Policy. A Gender and Women’s Studies major GPA of 2.0 is required, AND a grade of “C-” or better must be earned in all Gender and Women’s Studies courses.

P/N Grading Policy. With the exception of workshops and internships, only two classes may be taken on a P/N basis.

GENDER AND WOMEN’S STUDIES BA
Degree completion = 120 credits

Major Common Core
GWS 110 Introduction to Gender (4)
GWS 220 Global Perspectives on Women and Change (4)
GWS 310 Feminist Thought (4)
GWS 330 Feminist Research and Action (4)
GWS 340 Undergraduate Seminar (4)

Major Restricted Electives
(choose a minimum of 13 credits from the following)
AIS 240 American Indian Women (3)
AIS 240W American Indian Women (3)
ANTH 432 Kinship, Marriage and Family (3)
ANTH 433 Anthropology of Gender (3)
ART 419 Gender in Art (3)
BIOL 102 Biology of Women (3)
CORR 444 Women in the Criminal Justice System (3)
ENG 402 Gender in Literature (2-4)
ETHN 470 Women of Color (3)
GWS 120 Violence and Gender (4)
GWS 120W Violence and Gender (4)
GWS 225 Introduction to Lesbian, Gay, Bisexual, and Transgender Studies (4)
GWS 225W Introduction to Lesbian, Gay, Bisexual, and Transgender Studies (4)

Other Graduation Requirements

Required for Bachelor of Arts (BA) degree ONLY - Language (8 credits)

Required Minor: Yes. Any.

GENDER AND WOMEN’S STUDIES BS
Degree completion = 120 credits

Major Common Core
GWS 110 Introduction to Gender (4)
GWS 220 Global Perspectives on Women and Change (4)
GWS 310 Feminist Thought (4)
GWS 330 Feminist Research and Action (4)
GWS 340 Undergraduate Seminar (4)

Internship (choose 4 credits from the following)
GWS 497 Internship: Teaching (1-6)
GWS 498 Internship: Community (1-6)

Major Restricted Electives
(choose a minimum of 9 credits from the following)
AIS 240 American Indian Women (3)
AIS 240W American Indian Women (3)
ANTH 432 Kinship, Marriage and Family (3)
ANTH 433 Anthropology of Gender (3)
ART 419 Gender in Art (3)
BIOL 102 Biology of Women (3)
CORR 444 Women in the Criminal Justice System (3)
ENG 402 Gender in Literature (2-4)
ETHN 470 Women of Color (3)
GWS 120 Violence and Gender (4)
GWS 120W Violence and Gender (4)
GWS 225 Introduction to Lesbian, Gay, Bisexual, and Transgender Studies (4)
GWS 225W Introduction to Lesbian, Gay, Bisexual, and Transgender Studies (4)
GWS 230 Gender, Race, and Popular Culture (4)
GWS 251 Coming of Age: Gender and Culture (4)
GWS 251W Coming of Age: Gender and Culture (4)
GWS 251W Coming of Age: Gender and Culture (4)
GWS 260 Selected Topics (1-4)
GWS 265 Women and Spirituality (1)
GWS 277 Individual Study (1-6)
GWS 290 Workshop (1-4)
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<td>Politics of Sexuality</td>
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<td>SOWK 427</td>
<td>Social Work and Domestic Violence</td>
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**Required Minor: Yes. Any.**

### GENDER AND WOMEN’S STUDIES MINOR

**Minor Core (16 credits)**
- Minors choose between GWS 110, GWS 110W and GWS 220, GWS 220W. If both are taken, one can be applied toward electives.
  - **GWS 110** Introduction to Gender (4)
  - **GWS 110W** Introduction to Gender (4)
  - **GWS 220** Global Perspectives on Women and Change (4)
  - **GWS 220W** Global Perspectives on Women and Change (4)
  - **GWS 310** Feminist Thought (4)
  - **GWS 330** Feminist Research and Action (4)
  - **GWS 340** Undergraduate Seminar (4)

**Minor Electives**
- (choose a minimum of 5 credits from the following)
  - **AIS 240** American Indian Women (3)
  - **AIS 240W** American Indian Women (3)
  - **ANTH 432** Kinship, Marriage and Family (3)
  - **ANTH 433** Anthropology of Gender (3)
  - **ART 419** Gender in Art (3)
  - **BIOL 102** Biology of Women (3)
  - **CORR 444** Women in the Criminal Justice System (3)
  - **ENG 402** Gender in Literature (2-4)
  - **ETHN 470** Women of Color (3)
  - **GWS 120** Violence and Gender (4)
  - **GWS 120W** Violence and Gender (4)
  - **GWS 225** Intro. to Lesbian, Gay, Bisexual, and Transgender Studies (4)
  - **GWS 225W** Intro. to Lesbian, Gay, Bisexual, and Transgender Studies (4)
  - **GWS 230** Gender, Race, and Popular Culture (4)
  - **GWS 251** Coming of Age: Gender and Culture (4)
  - **GWS 251W** Coming of Age: Gender and Culture (4)
  - **GWS 260** Selected Topics (1-4)
  - **GWS 265** Women and Spirituality (1)
  - **GWS 277** Individual Study (1-6)
  - **GWS 290** Workshop (1-4)
  - **GWS 440** Feminist Pedagogy (3)
  - **GWS 445** Politics of Sexuality (3)
  - **GWS 460** Selected Topics (1-4)
  - **GWS 477** Individual Study (1-6)
  - **GWS 490** Workshop (1-4)
  - **GWS 497** Internship: Teaching (1-6)
  - **GWS 498** Internship: Community (1-6)
  - **HIST 155** History of the Family in America (3)
  - **HIST 408** History of Women in Preindustrial Europe (4)
  - **HIST 487** United States Women’s History (4)
  - **HLTH 400** Women’s Health (3)
  - **LAWE 235** Women in Law Enforcement (3)
  - **PHIL 445** Feminist Philosophy (3)
  - **POL 424** Women & Politics (3)
  - **PSYC 460** Psychology of Women (3)
  - **SOC 209** Sociology of Human Sexualities (3)

**SEXUALITY STUDIES MINOR**

The Sexuality Studies minor is an interdisciplinary course of study designed to complement any major. The objective of the curriculum is to develop a critical framework for understanding social justice by examining how sexual practices, expressions, identities, and representations are shaped by social, anthropological, historical, psychological, legal, sociological, and political contexts. Under the coordination of the Department of Gender and Women’s Studies, the minor focuses on issues of social ethics and sexuality, including the impact of factors cultural inequality upon sexual well-being and sexual health.

**Minor Core**
- **GWS 225** Introduction to Lesbian, Gay, Bisexual, and Transgender Studies (4)
- **GWS 230** Gender, Race, and Popular Culture (4)
- **GWS 455** Politics of Sexuality (3)
- **PSYC 333** Psychology of Sexual Health (3)
- **SOC 209** Sociology of Human Sexualities (3)

(choose one of the following courses)
- **ANTH 269** Anthropology of Sex (3)
- **ANTH 340** Language and Power (4)

### COURSE DESCRIPTIONS

**GWS 110 (4) Introduction to Gender**

This course familiarizes students with the field of Gender and Women’s Studies. It focuses on major questions and approaches to understanding gender alongside race, class, and sexuality, among other identity categories.

Fall, Spring, Summer

GE-5, GE-7

Diverse Culture - Purple

**GWS 110W (4) Introduction to Gender**

This course familiarizes students with the field of Gender and Women’s Studies. It focuses on major questions and approaches to understanding gender alongside race, class, and sexuality, among other identity categories.

Fall, Spring, Summer

WI, GE-5, GE-7

Diverse Culture - Purple

**GWS 120 (4) Violence and Gender**

We will examine the gendered systemic, and institutional nature of violence. We will seek to understand and prevent gender-based violence: sexual assault and harassment, intimate partner abuse, and hate crimes. We will think critically about gender, oppression, and privilege.

Fall, Spring, Summer

GE-9

Diverse Cultures - Purple

**GWS 120W (4) Violence and Gender**

We will examine the gendered systemic, and institutional nature of violence. We will seek to understand and prevent gender-based violence: sexual assault and harassment, intimate partner abuse, and hate crimes. We will think critically about gender, oppression, and privilege.

Fall, Spring, Summer

WI, GE-9

Diverse Cultures - Purple

**GWS 220 (4) Global Perspectives on Women and Change**

This course will examine women’s lives and activism, past and present, throughout the world. We will explore and evaluate individual and collective efforts to achieve social justice in the context of interlocking systems of oppression.

Fall, Spring, Summer

GE-8, GE-9

Diverse Cultures - Purple
GWS 220W (4) Global Perspectives on Women and Change
This course will examine women’s lives and activism, past and present, throughout the world. We will explore and evaluate individual and collective efforts to achieve social justice in the context of interlocking systems of oppression.
Fall, Spring, Summer
WI, GE-8, GE-9
Diverse Cultures - Purple

GWS 225 (4) Intro. to Lesbian, Gay, Bisexual and Transgender Studies
An introduction to the study of lesbian, gay, bisexual and transgender communities and identities, including challenges to homophobia and heterosexism. We will explore social and historical constructions of LGBT identities as they vary across ethnic, class, and gender lines.
Fall, Spring
GE-5, GE-7
Diverse Cultures - Gold

GWS 225W (4) Intro. to Lesbian, Gay, Bisexual and Transgender Studies
An introduction to the study of lesbian, gay, bisexual and transgender communities and identities, including challenges to homophobia and heterosexism. We will explore social and historical constructions of LGBT identities as they vary across ethnic, class, and gender lines.
Fall, Spring
WI, GE-5, GE-7
Diverse Cultures - Gold

GWS 230 (4) Gender, Race, and Popular Culture
Explores how popular culture shapes and mirrors our understandings of gender and sexuality and their intersections with race and class. Critically examines representations of gender and race in popular culture forms such as film, television, music, books, and the internet.
On-Demand
GE-2, GE-6
Diverse Cultures - Purple

GWS 251 (4) Coming of Age: Gender and Culture
This course explores the gendered coming-of-age experience in different time periods and cultures. Students will learn and apply tools from women’s studies to analyze the impact of gender, race, class, and sexuality on childhood, adolescence and adulthood.
Fall, Spring
GE-6, GE-7
Diverse Cultures - Purple

GWS 251W (4) Coming of Age: Gender and Culture
This course explores the gendered coming-of-age experience in different time periods and cultures. Students will learn and apply tools from gender and women’s studies to analyze the impact of gender, race, class, and sexuality on childhood, adolescence and adulthood.
Fall, Spring
WI, GE-6, GE-7
Diverse Cultures - Purple

GWS 290 (1-4) Workshop
Topics to be announced. May be retaken for credit.
Variable

GWS 310 (4) Feminist Thought
This course will introduce you to major theories of feminism as well as key issues in contemporary feminist thought. Students will have an opportunity to advance their own feminist thinking through engagement with a diversity of theoretical perspectives on gender.
Fall

GWS 330 (4) Feminist Research and Action
This course examines fundamentals of feminist research and the relationship between theory and practice. Students will engage philosophical and methodological questions about the production of knowledge; learn concrete research skills; and complete individual research/action projects.
Spring

GWS 330W (4) Feminist Research and Action
This course examines fundamentals of feminist research and the relationship between theory and practice. Students will engage philosophical and methodological questions about the production of knowledge; learn concrete research skills; and complete individual research/action projects.
Spring

GWS 340 (4) Undergraduate Seminar
Advanced topics in women’s and gender studies.
Pre: GWS 110 or GWS 220 or consent
Spring

GWS 440 (3) Feminist Pedagogy
We explore key philosophical and methodological issues in feminist teaching with an emphasis on application of the material.

GWS 455 (3) Politics of Sexuality
This course explores the interconnections between sex, gender, and sexuality, with special attention to how institutions and communities shape experience and identity.

GWS 460 (1-4) Selected Topics
Offered according to student demand and instructor availability/expertise, topics courses provide curriculum enrichment on an ongoing basis.
Variable

GWS 477 (1-6) Individual Study
Concentrated study and research in areas of student’s special interests/expertise under supervision of a faculty member.
Pre: Must be department major/minor
Fall, Spring

GWS 490 (1-4) Workshop
Topics to be announced. May be retaken for credit.
Variable

GWS 497 (1-6) Internship: Teaching
Students assist a faculty member in teaching GWS 110 or GWS 220.
(Complete course handbook available from: cynthia.veldhuisen@mnsu.edu)
Pre: GWS 110 or GWS 220 and consent.

GWS 498 (1-6) Internship: Community
The Gender and Women’s Studies internship provides students with the opportunity to gain experience within an on-campus, off-campus private, public or community organization. This internship provides a means for pursuing an interest in a field of work, or within a particular organization; gaining work and/or activist experience and practical skills; making appropriate contacts which might be useful in establishing a future career.
Geography
College of Social & Behavioral Sciences
Department of Geography
206 Morris Hall • 507-389-2617
Chair: Donald A. Friend

Woo Jang, Phillip Larson, Jose Javier Lopez, Cynthia A. Miller, Martin D. Mitchell, Rama Mohapatra, Ginger Schmid, Forrest Wilkerson, Fei Yuan

Both a social and natural science seeking to understand the interactions between people and their environment, Geography examines the distribution of physical and cultural phenomena across the Earth. Divided into two main parts, cultural and physical geography, cultural geography explores the characteristics of societies including demographics, religion, economy, and government and how these traits diffuse or contract across space and time. Physical geography examines landforms, climate, flora and fauna along with natural resources and the processes governing their distributions and use. Explored together in regional geography, the cultural and physical traditions are supplemented by cutting edge geospatial technologies (GIS Remote Sensing, and GPS), which provides students with skills highly prized in the work force. The Department of Geography offers a full suite of courses covering the cultural, physical, and regional and geospatial branches of geography at the undergraduate and graduate levels.

The majors, minor and Geographic Information Science Certificate offered by the Department provide background and training that enable students to enter careers in the public or private sectors as well as prepare them for graduate study.

POLICIES/INFORMATION

Admission to Major. Students enrolling in 300-400 level courses must be admitted to the program. Admission to major is granted by the department. Minimum university admission requirements are:
- a minimum of 32 earned semester credit hours.
- a minimum cumulative GPA of 2.00 (“C”).
Contact the department for application procedures.

COMBINED BS GEOGRAPHY AND MA URBAN PLANNING LEADING TO ACCELERATED COMPLETION OF MASTER’S DEGREE
Geography and Urban Studies share an arrangement for an accelerated Bachelor’s/Master’s degree program. Undergraduate students in Geography with a GPA of at least 3.0 can apply to the accelerated program in their Junior year. If accepted, in their Senior year they petition to take three Geography courses at the graduate level, and those courses are then included in both their undergraduate program and in the Master’s of Urban Planning program. Contact either department for specific information.

GPA Policy. A GPA of 2.0 or higher in a major or minor in geography is required for graduation. Refer to the College regarding required advising for students on academic probation.

Pass/No Credit Policy. P/N grading will be accepted in the major only for GEOG 401, and GEOG 497 and GEOG 409 at instructor discretion. All other courses must be taken for letter grades. All courses for the minor must be taken for letter grades.

GEOGRAPHY BA
Degree completion = 120 credits

Major Common Core
GEOG 101 Introductory Physical Geography (3)
GEOG 103 Introductory Cultural Geography (3)
GEOG 340 United States (3)
GEOG 370 Cartographic Techniques (4)
GEOG 401 Colloquium (1)

Major Restricted Electives
Cultural-Systematic (choose 3 credits)
GEOG 425 Economic Geography (3)

Other Graduation Requirements
Required for Bachelor of Arts (BA) degree ONLY: Language (8 credits)
Required Minor. Yes. Any.

PROFESSIONAL BA
Degree completion = 120 credits

Major Common Core
GEOG 101 Introductory Physical Geography (3)
GEOG 103 Introductory Cultural Geography (3)
GEOG 340 United States (3)
GEOG 370 Cartographic Techniques (4)
GEOG 401 Colloquium (1)

Major Restricted Electives
Foreign Regional (choose 3 credits)
GEOG 445 Latin America (3)
GEOG 446 Canada (3)
GEOG 450 Europe (3)
GEOG 454 Russian Realm (3)
GEOG 456 Africa (3)
GEOG 458 Geography of East Asia (3)

Capstone Experience (choose 1-4 credits)
GEOG 414 Biogeography (3)
GEOG 438 Social Geography (3)
GEOG 437 Political Geography (3)
GEOG 436 Rural Geography (3)
GEOG 435 Urban Geography (3)
GEOG 405 Europe (3)
GEOG 410 Climatic Environments (3)
GEOG 411 Conservation of Natural Resources (3)

Total credits in major must equal or exceed 32. Take number of credits needed to reach 32.

GEOG 200 - GEOG 499

foreign regional (choose 3 credits)
GEOG 446 Canada (3)
GEOG 450 Europe (3)
GEOG 454 Russian Realm (3)
GEOG 456 Africa (3)
GEOG 458 Geography of East Asia (3)
GEOG 440 Field Studies (1-4)
GEOG 480 Seminar (1-4)
GEOG 491 Senior Paper (1-4)
GEOG 497 Internship (1-10)

Major Unrestricted Electives

Additional Electives (choose 15-24 credits)
Total credits in major must equal or exceed 48. Up to 6 elective credits may be taken outside Geography with departmental permission.
GEOG 200-499

Other Graduation Requirements

Required for Bachelor of Arts (BA) degree ONLY: Language (8 credits)

Required Minor. None.

GEOGRAPHY BS
Degree completion = 120 credits

Major Common Core
GEOG 101 Introductory Physical Geography (3)
GEOG 103 Introductory Cultural Geography (3)
GEOG 340 United States (3)
GEOG 370 Cartographic Techniques (4)
GEOG 401 Colloquium (1)

Major Restricted Electives
Cultural-Systematic (choose 3 credits)
GEOG 425 Economic Geography (3)
GEOG 435 Urban Geography (3)
GEOG 436 Rural Geography (3)
GEOG 437 Political Geography (3)
GEOG 438 Social Geography (3)
Physical (choose 3 credits)
GEOG 217 Weather (4)
GEOG 218 Weather Laboratory (1)
GEOG 313 Natural Disasters (3)
GEOG 315 Geomorphology (3)
GEOG 410 Climatic Environments (3)
GEOG 414 Biogeography (3)
GEOG 420 Conservation of Natural Resources (3)
Foreign Regional (choose 3 credits)
GEOG 445 Latin America (3)
GEOG 446 Canada (3)
GEOG 450 Europe (3)
GEOG 454 Russian Realm (3)
GEOG 456 Africa (3)
GEOG 458 Geography of East Asia (3)
Capstone Experience (choose 1-4 credits)
GEOG 440 Field Studies (1-4)
GEOG 480 Seminar (1-4)
GEOG 491 Senior Paper (1-4)
GEOG 497 Internship (1-10)

Major Unrestricted Electives

Additional Electives (choose 15-24 credits)
Total credits in major must equal or exceed 48. Up to 6 elective credits may be taken outside Geography with departmental permission.
GEOG 200-499

GEOMORPHOLOGY AND EARTH SURFACE PROCESSES CERTIFICATE

Geomorphology is the study of the form and character of the Earth’s surface. Earth Surface Processes shape and transform our planet’s landscape. Students will develop a broad theoretical understanding and learn to apply specific analytical skill to the field of Geomorphology through a multi-disciplinary curriculum in Geography, Geology and Anthropology.

Major Common Core
Take either GEOG 315 or GEOG 415 and GEOG 410
GEOG 315 Geomorphology (3)
GEOG 410 Climatic Environments (3)
GEOG 415 Earth Surface Processes (4)

Major Restricted Electives
(choose one from the following)
GEOG 411 Soils Geomorphology (3)
GEOG 416 Fluvial Geomorphology and Hydrology (4)

Major Unrestricted Electives
At least six credits must be taken. Choose courses from two of the three listed departments. GEOG 411 and GEOG 416 can be taken as an unrestricted elective if they were not taken as a restricted elective.
ANTH 331 Environmental Anthropology (3)
GEOG 411 Soils Geomorphology (3)
GEOG 416 Fluvial Geomorphology and Hydrology (4)

GEOGRAPHIC INFORMATION SCIENCE (GISc) CERTIFICATE

(18-20 credits)

GEOG 411 Soils Geomorphology (3)
GEOG 416 Fluvial Geomorphology and Hydrology (4)

Major Unrestricted Electives

At least six credits must be taken. Choose courses from two of the three listed departments. GEOG 411 and GEOG 416 can be taken as an unrestricted elective if they were not taken as a restricted elective.
ANTH 331 Environmental Anthropology (3)
GEOG 411 Soils Geomorphology (3)
GEOG 416 Fluvial Geomorphology and Hydrology (4)

GEOLOGICAL SCIENCES CERTIFICATE

(18-20 credits)

GEOG 411 Soils Geomorphology (3)
GEOG 416 Fluvial Geomorphology and Hydrology (4)

Major Unrestricted Electives

At least six credits must be taken. Choose courses from two of the three listed departments. GEOG 411 and GEOG 416 can be taken as an unrestricted elective if they were not taken as a restricted elective.
ANTH 331 Environmental Anthropology (3)
GEOG 411 Soils Geomorphology (3)
GEOG 416 Fluvial Geomorphology and Hydrology (4)

GEOGRAPHIC INFORMATION SCIENCE (GISc) CERTIFICATE

(18-20 credits)

Students will receive a fundamental knowledge and understanding of Geographic Information Systems (GIS) and Remote Sensing technologies with the option to focus more intensively on advanced GIS, Remote Sensing or Global Positioning Systems (GPS) principles and applications.
Major Common Core
GEOG 373 Introduction to Geographic Information Systems (4)
GEOG 473 Intermediate GIS (4)
GEOG 474 Introduction to Remote Sensing (4)

Major Restricted Electives (choose 6-8 credits)
GEOG 480 must be the "Seminar: Environmental Hazards"
GEOG 439 Transportation Modeling & GIS (4)
GEOG 471 Digital Field Mapping with GPS (4)
GEOG 475 Applied Remote Sensing & GIS (4)
GEOG 476 Spatial Statistics (3)
GEOG 478 Spatial Analysis with GIS (3)
GEOG 479 GIS Practicum (1-4)
GEOG 480 Seminar (1-4)

GEOPHYGRAPHY MINOR

Required for Minor
GEOG 101 Introductory Physical Geography (3)
GEOG 103 Introductory Cultural Geography (3)
GEOG 340 United States (3)

Minor Electives
Choose 9 credits from GEOG 200 - GEOG 499

COURSE DESCRIPTIONS

GEOG 100 (3) Elements of Geography
An introduction to Geography and its themes of study. The course will familiarize students with where places are located in the world together with their cultural and physical features. Students will be tasked to think critically and diversely about various cultures and features of the modern world.
Fall, Spring
GE-8, GE-10
Diverse Cultures - Purple

GEOG 101 (3) Introductory Physical Geography
Survey of the processes and features of the earth’s physical environment, earth-sun relationships, weather, climate, natural vegetation, soil, and landforms. Examines their interrelations and spatial distribution using North America and world-wide examples. Some coverage of human-environmental relations.
Fall, Spring
GE-3, GE-10

GEOG 103 (3) Introductory Cultural Geography
Cultural aspects of interactions between people and their environment focusing on spatial patterns of population, agriculture, politics, language, religion, industrialization, and urbanization. Emphasis is placed on the processes that create the cultural landscape and on management of land and natural resources.
Fall, Spring
GE-5, GE-8
Diverse Cultures - Purple

GEOG 210W (3) Landscapes and Places
Introduction to the concepts of landscape and place in a variety of geographical writings. Emphasizes works with strong regional overtones. The interaction between the physical and cultural environments is paramount. Field observation and integrating imagery into original student writing documents is also addressed. WI, GE-10

GEOG 217 (4) Weather
An examination of the processes involved in weather formation. Students will be introduced to weather map analysis, simple forecasting and observational techniques, and weather instruments.
Fall, Spring

GEOG 218 (1) Weather Laboratory
Covers applied aspects of weather, including understanding weather codes, analysis and interpretation of weather maps, basic techniques of forecasting, and familiarity with weather instruments.
Fall, Spring

GEOG 299 (1-3) Individual Study
An assignment that is tailored to individual needs of a student. The instructor and the student arrange the type of project for the student, such as a term paper, readings, mapping, field investigation, or computer cartography.
Pre: Consent
Fall, Spring

GEOG 313 (3) Natural Disasters
An examination of the underlying causes of natural disasters occurring over the globe. Focus will be primarily upon weather and climate related disasters. Students will also be exposed to concepts of plate tectonics and how these affect the distribution of earthquakes and volcanism over the planet.
Variable

GEOG 315 (3) Geomorphology
Covers elements of the structure of the earth and the variety of landforms found on the earth’s surface, with emphasis upon the processes, both past and present, that act upon the surface to create the landforms now visible. Local field trips.
Fall

GEOG 340 (3) United States
Students will develop a knowledge of the similarities and contrasts in regional landscapes and cultures of the United States.
Fall, Spring

GEOG 341 (3) World Regional Geography
Differences and similarities in the cultural and natural environments by the world’s major regions. Useful survey of world geography for educators and international relations students.
Fall, Spring
Diverse Cultures - Purple

GEOG 342 (3) Geography of Minnesota
The course involves the natural and human environments of Minnesota. The physical resources, population history, and current issues are emphasized.
Fall, Spring

GEOG 343 (3) GIS for Crime Analysis
This is a hands-on, exercise-based GIS for Law Enforcement course analyzing the contemporary realities of the spatial and geographic aspects of crime. Students acquire practical tools necessary to conduct effective mapping and spatial analyses of crime using GIS software. Lab activities are designed to benefit those working with public safety and emergency response systems.
Fall (Odd Years)

GEOG 352 (3) GIS for Crime Analysis
The lecture material addresses map projections, technology changes in production, basic analysis and depiction of quantitative point, line and areal data. Also, the evaluation of maps and the history of cartography from a European, Oriental, and American Indian perspective is discussed. All maps are drawn using computer assistance.
Fall, Spring

GEOG 370 (4) Cartographic Techniques
The lecture material addresses map projections, technology changes in production, basic analysis and depiction of quantitative point, line and areal data. Also, the evaluation of maps and the history of cartography from a European, Oriental, and American Indian perspective is discussed. All maps are drawn using computer assistance.
Fall, Spring

GEOG 373 (4) Introduction to Geographic Information Systems
The course will be an introduction to the analysis of spatial data using the concept of a geographic information system (GIS). Content of the course will be, to a great extent, based on the NCGIA core curriculum with assignments tailored to the data and software available within the department such as ArcGIS.
Fall, Spring

GEOG 401 (1) Colloquium
Overview of geographic work, interests, and research by guest speakers.
Fall

GEOG 409 (1-4) Selected Topics
The instructor will develop a specific course on a geographic topic, such as soils, landforms, water resources, energy, housing, population geography, or some other topic for the class.
Fall, Spring
GEOG 410 (3) Climatic Environments
The characteristics of particular climates and understanding the factors that control their spatial distribution.
Pre: GEOG 101, or consent
Fall

GEOG 411 (3) Soils Geomorphology
This course examines soils and their role in interpreting the history of landform development. Soils chronicle the environment in which they have formed, and reflect the environment they currently support. Understanding their formation and subsequent distribution is essential to good management practices. Applications include the analysis of soil data bases and assimilation of field derived soil profile data.
Fall, Spring (On-Demand), Summer (On-Demand)

GEOG 412 (4) Advanced Weather
Meteorological principles and theory are applied to the analysis and interpretation of weather data in order to better understand the structure and evolution of synoptic-scale weather systems. Basic knowledge of mathematics will be assumed. Pre: GEOG 217
ALT-Fall

GEOG 414 (3) Biogeography
Analyzes the distribution and concentration of plants and animals throughout the world. Emphasis is placed on the role of evolution, tectonics, and physical barriers to the distribution and migration of species. Special emphasis is placed on the role of humans in the modern redistribution of species.
Fall

GEOG 415 (4) Earth Surface Processes
This course examines the natural processes that operate on our planet and shape the landscape presently. This will be done through a focus on applied exercises, measurements and direct/indirect observations. Through applied projects students will have an understanding of how these processes interact within a variety of Earth Systems.
Fall (On-Demand), Spring (On-Demand), Summer

GEOG 416 (4) Fluvial Geomorphology and Hydrology
An in-depth investigation into fluvial systems including sediment transport, sediment budget analysis, channel geometry/morphology, drainage basin analysis, geomorphic evolution of fluvial landscapes, hydrology (i.e., runoff generation and channel formation, storm hydrograph and flood analysis, discharge measurements) of fluvial systems, and effects of anthropogenic modification and use of fluvial systems.
Fall, Spring (On-Demand)

GEOG 420 (3) Conservation of Natural Resources
Survey of natural resources emphasizing energy, minerals, soils, fisheries, and water resources. Also addresses timber, wetlands, and wildlife on public and private lands.
Spring

GEOG 425 (3) Economic Geography
Examines national and international economic geographical order and trade activities. Topics include economic development, competition, international trade, and impacts on the environment and people.

GEOG 435 (3) Urban Geography
Hypotheses and generalization related to urban functions, structure, land use, distribution, growth, and sometimes decline. Emphasis will be mostly on the United States' urban places.
Fall

GEOG 436 (3) Rural Geography
Introduction to theoretical frameworks for analyzing processes of economic, environmental, and social change in rural regions. Includes basic and advanced geographical principles and techniques for studying non-urban areas. Designed to equip students with the knowledge and skills necessary for carrying out research projects on rural environments.
Spring

GEOG 437 (3) Political Geography
Spatial problems and structure of governments, focusing on countries of the world and their geographic internal order. Covers such topics as boundary problems, strategic locations, and geopolitical explanations of international and internal relations and conflicts.
Spring

GEOG 438 (3) Social Geography
Fall

GEOG 439 (4) Transportation Modeling & GIS
Four major sets of ideas will be covered: Introduction to Spatial Organization, Network Analysis, Allocation Methods, and Urban Transportation. The emphasis is on these approaches to understanding the geography of transport by description, explanation, and normative or optimal methods.
Fall

GEOG 440 (1-4) Field Studies
Various excursions to study physical and cultural landscapes inside and outside of Minnesota. Variable

GEOG 445 (3) Latin America
Regional geography covering the ecological and human environment of Middle and South America, including the Caribbean. Students can pick specific topics to study in detail. The geographic relations between the USA and Latin America are also covered.
Fall

GEOG 446 (3) Canada
Students will develop a knowledge of the environmental, cultural, historical, and economic geographies of Canada. Readings of bestselling fiction and scholarly works written by Canadians will provide a Canadian perspective on the nation's past, present, and future.
ALT-Fall

GEOG 450 (3) Europe
Cultural, environmental, and economic background of Europe west of Russia and Ukraine. Following a general geographic survey, the course will cover major regions and countries.
Spring

GEOG 454 (3) Russian Realm
Survey of the area of Russia and her neighbors. Examines regional patterns of the physical environment, natural resources, population distribution, cities, and economic activity. Relates people to the land.
Variable

GEOG 456 (3) Africa
A survey of the physical and cultural resources and economic development of the continent with emphasis on current issues. Topics discussed will focus on Africa south of the Sahara.
Variable

GEOG 458 (3) Geography of East Asia
Examines the physical and human environments of eastern Asia, mainly China, Korea and Japan. The class will be assisted by visual sources and hands-on use of primary documents.
Variable

GEOG 464 (4) Teaching Earth Science
An applied course tailored to meet practical needs of a teacher, related to curriculum development and earth science lab equipment and supplies.
Variable

GEOG 471 (4) Digital Field Mapping with GPS
This course covers the basic strategies for field mapping using data acquired from global positioning systems (GPS).
Pre: GEOG 373 or equivalent
Fall
GEOG 473 (4) Intermediate GIS
Comprehensive examination of computer-assisted systems for manipulation and analysis of spatially-referenced data, including data structure and organization, input and output problems, data management, and strategies for analytical work.
Pre: GEOG 373
Spring

GEOG 474 (4) Introduction to Remote Sensing
This is an introductory course on theories and techniques of remote sensing. Focus will be placed on providing students with a general overview of the application of remote sensing to practical problems, and hands-on experience for image processing and analysis.
Fall

GEOG 475 (4) Applied Remote Sensing & GIS
This course provides students the opportunity to develop further knowledge of remote sensing. Emphasis will be placed on introducing advanced theories and techniques for digital image processing and helping students obtain independent research skills using remote sensing data.
Pre: GEOG 373, GEOG 474
Spring

GEOG 476 (3) Spatial Statistics
Descriptive statistics, probability, hypothesis testing, introduction to non-parametric statistics, correlation, introduction to regression analysis, spatial statistics, and principles of data representation in graphs and tables.
Spring

GEOG 477 (1-3) Topics in Techniques
This offering will include a variety of selected technical topics in geography, including but not necessarily limited to manual cartographic drafting and negative scribing, photomechanical techniques in production cartography, aerial photo interpretation, and advanced coverage of digital analysis of satellite-derived remote sensor data and global positioning systems.
Pre: Consent
Variable

GEOG 478 (3) Spatial Analysis with GIS
Introduction to theoretical frameworks for spatial analysis and geographic quantitative methods. Includes basic and advanced geographic principles and techniques for studying spatial patterns. Designed to equip students with the skills necessary to carry out research projects that demand advanced statistics.

GEOG 479 (1-4) GIS Practicum
This offering will include supervised project work in raster-based and/or vector-based GIS, using problems and data drawn from local or regional agencies or other professional-level organizations with whom the Geography Department maintains a relationship. Students must have completed one of the prerequisite courses, or professional-level experience.
Pre: GEOG 373 or GEOG 473, or consent
Variable

GEOG 480 (1-4) Seminar
Topics vary in physical, cultural, economic, political, and historical geography, as well as environmental conservation and geographic techniques.
Pre: GEOG 373
Variable

GEOG 491 (1-4) Senior Paper
Fall, Spring

GEOG 497 (1-10) Internship
An applied work and learning experience. The student will provide a written internship report on professional practicum and the work supervisor will be consulted on how much the student has accomplished.
Pre: Consent
On Demand

GEOG 499 (1-3) Individual Study
An assignment that is tailored to individual needs of a student. An arrangement is made that the student works on a project (term paper, readings, mapping, field investigation, GIS, or related topics).
Pre: Consent
On Demand

Geology
College of Science, Engineering and Technology
Department Chemistry & Geology
241 Ford Hall • 507-389-1963

Chair: Mary Hadley
Bryce Hoppie, Steven Losh, Chad Wittkop

Geology is the study of the earth. It concerns itself with the materials that constitute the earth, their disposition and structure, the processes at work on and within the earth, and both the physical and biological history of the earth.

GEOLOGY MAJOR - See Earth Science Major

GEOLOGY MINOR

Required for Minor
GEOL 121 Physical Geology (4)
GEOL 122 Earth History (4)
GEOL 201 Elements of Mineralogy (4)

Required Electives for Minor
(choose a minimum of 6 credits from the following)
GEOL 330 Structural Geology (4)
GEOL 350 Environmental Geology (4)
GEOL 370 Geotectonics (2)
GEOL 401 Field Studies (1-3)
GEOL 450 Hydrogeology (3)
GEOL 499 Individual Study (1-5)

COURSES DESCRIPTIONS

GEOL 100 (3-4) Our Geologic Environment
Earthquakes, volcanic eruptions, and flooding are three examples of naturally recurring events on the Earth that ultimately influence all of our lives. This course introduces the physical features and processes of the Earth that control these events. The course has a laboratory component.
Fall, Spring
GE-3, GE-10

GEOL 108 (3) Oceans of the World
An introduction to the world’s oceans: how they work, what they contain, how they impact everything on Earth, and how humans impact them.
Fall, Spring
GE-3, GE-10
GEOL 121 (4) Physical Geology  
Physical geology is the study of how the earth works. From mountain building to soil erosion, this course provides an introduction to all the main areas of geologic study. Lecture discussions and laboratory exercises are designed for students seeking a major or minor in one of the natural sciences.  
Pre: GEOL 121  
Fall  
GE-3, GE-10

GEOL 122 (4) Earth History  
An examination of the development and evolution of life on earth. In addition to reviewing the range of life forms and global climates existing on earth during various times in its geologic past, we will also look at how global industrialization could lead to the earth’s next period of mass extinction. Weekly laboratory assignments illustrate principles discussed in lectures.  
Pre: AST 101, CHEM 201, GEOL 121  
Fall  
GEOL 201 (4) Elements of Mineralogy  
Examination of the elemental composition and crystal structure of various common minerals. Laboratory time is spent practicing techniques of identifying crystals and minerals. The importance and occurrence of many economic minerals is also covered thoroughly in this course.  
Pre: GEOL 100 or GEOL 121  
Fall  
GEOL 302 (4) Petrology  
Study of the compositions and origins of igneous, sedimentary, and metamorphic rocks in a plate tectonic context. Topics include mineral optics and geochemistry. Lab portion of course emphasizes identification and study of rocks.  
Pre: GEOL 201  
Spring

GEOL 305 (2) Earth Science for Elementary Educators  
An integrated, multi-disciplinary study of the Earth and the solar system. The course establishes basic concepts of astronomy, physical geography, and geology to give students a thorough understanding of the Earth and its place in the solar system. Learning outcomes partially fulfill licensure requirements for elementary educators. This course is focused on content.  
Pre: BIOL 100, PHYS 101  
Fall, Spring

GEOL 310 (3) Earth and Space Systems  
An integrated, multi-disciplinary study of the Earth and the solar system. The course builds on basic concepts of astronomy, chemistry and geology to give students an enhanced understanding of the nature and relationship among the forces that control the Earth’s evolution. Learning outcomes partially fulfill licensure requirements for secondary science educators.  
Pre: AST 101, CHEM 201, GEOL 121  
Fall

GEOL 320W (4) Sedimentology and Stratigraphy  
Focused studies of the origins and processes of transportation, deposition, burial and diagenesis of sedimentary materials. Lab assignments focus on sedimentary material identification and analysis. Field trips required.  
Pre: GEOL 121  
Fall  
WI

GEOL 330 (4) Structural Geology  
Study of processes and results of rock deformation at scales ranging from microscopic to plate tectonic, and at conditions ranging from the Earth’s surface to the deep interior.  
Pre: GEOL 121

GEOL 330W (4) Structural Geology with Field Studies  
Study of processes and results of rock deformation at scales ranging from microscopic to plate tectonic, and at conditions ranging from the Earth’s surface to the deep interior.  
Pre: GEOL 121

GEOL 350 (4) Environmental Geology  
The application of geologic data and principles to problems created by human occupancy and use of the physical environment. Lecture and laboratory topics include soil classification and conservation, hazardous waste site evaluation and remediation, and living with geologic hazards.  
Pre: GEOL 121  
ALT-Spring

GEOL 351 (2) Engineering Geology  
This course focuses on the application of geologic data and principles created by human occupancy and use of the physical environment. This course meets concurrently with GEOL 350 Environmental Geology through the last eight weeks of the semester. It is intended for civil engineering students that previously completed Geotechnical Engineering, CIVE 360.  
Pre: GEOL 121, CIVE 360, or instructor permission  
ALT-Spring

GEOL 370 (2) Geotectonics  
Expanded discussions of several topics introduced in Physical Geology and Structural Geology. Topics include plate tectonics, deep earth structure, seismicity, mountain building, and continental growth.  
Pre: GEOL 121 and GEOL 330  
Variable

GEOL 401 (1-3) Field Studies  
This course is devoted to the study and practice of geological field investigations. Students will first learn basic field investigative methods. Students will then be appropriately versed in the geological history and importance of a region selected for in-depth study. Finally, students will participate in a field trip to a regional site of geologic importance over an extended weekend (4-6 days). Potential study sites may include Minnesota’s North Shore and Iron Range, the Badlands and Black Hills of South Dakota, the Ozarks, or the Rocky Mountains.  
Pre: GEOL 100 or GEOL 121 and GEOL 122  
Variable

GEOL 430 (3) Petroleum and Ore Deposit Geology  
Comprehensive survey of ore deposit and petroleum geology, including exploration and production technologies. Course emphasizes projects using industry data.  
Pre: GEOL 121, GEOL 201, GEOL 122  
Coreq: GEOL 320W, GEOL 302, GEOL 330  
Variable

GEOL 440 (4-8) Geology Field Camp  
Geologic field mapping and interpretation in diverse settings. Course is offered by universities throughout the U.S. and elsewhere.  
Pre: GEOL 121, GEOL 122, GEOL 201, GEOL 320W, GEOL 330  
Summer

GEOL 450 (3) Hydrogeology  
This course introduces physical and chemical studies of hydrogeology. The main areas of discussion will include the physical and chemical attributes of aquifers, movement of ground-water and solute through soils and rocks, and reactions between earth materials and pollutants in ground-water systems. The class includes extensive use of MODFLOW and MT3D, the two most commonly used groundwater modeling programs currently available.  
Pre: CHEM 201, GEOL 121  
ALT-Spring

GEOL 479 (4) Teaching Earth Sciences  
Material and methods of earth science study directed toward future teachers of students in junior high and high schools.  
Pre: GEOL 121, GEOG 217 or instructor permission  
Variable

GEOL 490 (1-4) Workshop  

GEOL 499 (1-5) Individual Study
German

College of Arts & Humanities
Department of World Languages & Cultures
227 Armstrong Hall • 507-389-2116
Website: www.mnsu.edu/languages

Chair: Gregory Taylor
Faculty: Nadja Krämer

In our changing global environment, communication is the key to understanding other peoples and cultures. The German program prepares its students to thrive as global citizens in a diverse world. Students in German language education acquire language proficiency and cultural competence that provide insight into the culture, literature, and history of German-speaking countries and enables them to travel, study, and work in areas where the target language is used.

At the end of their program, students will meet the National Standards for Foreign Language Learning:

**Communicate in Languages Other Than English**
- Standard 1.1: Students engage in conversations, provide and obtain information, express feelings and emotions, and exchange opinions.
- Standard 1.2: Students understand and interpret written and spoken language on a variety of topics.
- Standard 1.3: Students present information, concepts, and ideas to an audience of listeners or readers on a variety of topics.

**Gain Knowledge and Understanding of Other Cultures**
- Standard 2.1: Students demonstrate an understanding of the relationship between the practices and perspectives of the culture studied.
- Standard 2.2: Students demonstrate an understanding of the relationship between the products and perspectives of the culture studied.

**Connect with Other Disciplines and Acquire Information**
- Standard 3.1: Students reinforce and further their knowledge of other disciplines through the foreign language.
- Standard 3.2: Students acquire information and recognize the distinctive viewpoints that are only available through the foreign language and its cultures.

**Develop Insight into the Nature of Language and Culture**
- Standard 4.1: Students demonstrate understanding of the nature of language through comparisons of the language studied and their own.
- Standard 4.2: Students demonstrate understanding of the concept of culture through comparisons of the cultures studied and their own.

**Participate in Multilingual Communities at Home & Around the World**
- Standard 5.1: Students use the language both within and beyond the school setting.
- Standard 5.2: Students show evidence of becoming life-long learners by using the language for personal enjoyment and enrichment.

**POLICIES/INFORMATION**

**Admission to Major** is granted by the department. Minimum university admission requirements are:
- a minimum of 32 earned semester credit hours.
- a minimum cumulative GPA of 2.00 ("C").
A minimum GPA of 2.5 is required in all German courses. Contact the department for application procedures.

**GPA Policy.** A grade of "C-" or better must be earned for major or minor credit.

**P/N Grading Policy.** Work done for a major or minor must be done for a letter grade above the second-year level. A grade of "P" must be earned for major or minor credit in all work done on a P/N basis.

**Proficiency Policies.** Students with high school language experience may take the CLEP test for a maximum of 12 credits. Students who wish to receive credit by examination may take tests to evaluate their proficiency. Students may not take a proficiency test for a course in which they are enrolled. The department reserves the right to deny admission to courses for those students whom a faculty member determines to have mastered the material already.

**Fulfilling BA Language Requirement.** Students who wish to validate the BA Language requirement for previous study in French, German, Spanish, Swedish or Norwegian may do so by taking a language competency exam under the rules for credit by exam (see above section). Students do not meet the BA language requirements merely because they have taken two years of high school language.

**Residency Requirement.** Transfer credits will be applied only if they are the equivalent of work offered by the Department of World Languages & Cultures for the major or minor in that language. In addition, a minimum of work must be taken at Minnesota State Mankato as follows. Major: a minimum of eight credits upper division courses other than Independent or Individual Study. At least one of these courses must be at the 400 level. Minor: a minimum of one upper division course other than Independent or Individual Study, for a total of at least four credits.

Courses not required for a student’s specific baccalaureate degree should be chosen according to these general guidelines:
- **BA:**
  - Emphasis on literature in upper-division courses; students will most likely pursue their education beyond the baccalaureate level.
- **BS:**
  - Emphasis on the ability to communicate in the language; presupposes knowledge of culture and civilization; students frequently have career goals in other disciplines for which a language is either required or recommended.

**GERMAN BA**
Degree completion = 120 credits

**Prerequisites to the Major**
GER 101 Elementary German I (4)
GER 102 Elementary German II (4)

**Major Common Core (24 credits)**
GER 340 Topics in Language (1-4)
GER 341 Composition and Conversation (4)
GER 342 Selected Readings (1-4)
GER 343 German Civilization (1-4)
GER 441 Conversation and Composition (4)
GER 442 German Literature (1-4)

**Major Unrestricted Electives (12 credits)**
GER 150W The German-speaking Countries: An Interdisciplinary Introduction (4)
GER 201 Intermediate German I (4)
GER 202 Intermediate German II (4)
GER 293 Supervised Foreign Study: Intermediate (1-4)
GER 299 Individual Study (1-4)
GER 340 Topics in Language (1-4)
GER 393 Supervised Foreign Study (1-6)
GER 443 Topics in German Studies (1-4)
GER 445 Topics in German Linguistics (1-4)
GER 460 Topics in German Cinema (4)
GER 490 Senior Capstone Project (1-4)
GER 493 Supervised Foreign Study (1-6)
GER 497 Internship (1-6)
GER 499 Individual Study (1-4)

**Required for Bachelor of Arts (BA) degree ONLY:** Language (8 credits)

**Required Minor: Yes. Any.**
GERMAN BS
Degree completion = 120 credits

Pre-requisites to the Major
GER 101 Elementary German I (4)
GER 102 Elementary German II (4)

Major Common Core (24 credits)
GER 340 Topics in Language (1-4)
GER 341 Composition and Conversation (4)
GER 342 Selected Readings (1-4)
GER 343 German Civilization (1-4)
GER 441 Conversation and Composition (4)
GER 442 German Literature (1-4)

Major Restricted Electives (12 credits)
GER 150W The German-speaking Countries: An Interdisciplinary Introduction (4)
GER 201 Intermediate German I (4)
GER 202 Intermediate German II (4)
GER 293 Supervised Foreign Study: Intermediate (1-4)
GER 299 Individual Study (1-4)
GER 393 Supervised Foreign Study (1-6)
GER 443 Topics in German Studies (1-4)
GER 444 Topics in German Linguistics (1-4)
GER 460 Topics in German Cinema (4)
GER 490 Senior Capstone Project (1-4)
GER 493 Supervised Foreign Study (1-6)
GER 497 Internship (1-6)
GER 499 Individual Study (1-4)

GERMAN BS, TEACHING
Degree completion = 120 credits

Pre-requisites to the Major
GER 201 Intermediate German I (4)
GER 202 Intermediate German II (4)

Major Common Core
Language (choose 1-4 credits)
GER 340 Topics in Language (1-4)

Major Restricted Electives (12 credits)
GER 150W The German-speaking Countries: An Interdisciplinary Introduction (4)
GER 201 Intermediate German I (4)
GER 202 Intermediate German II (4)
GER 293 Supervised Foreign Study: Intermediate (1-4)
GER 299 Individual Study (1-4)
GER 393 Supervised Foreign Study (1-6)
GER 443 Topics in German Studies (1-4)
GER 444 Topics in German Linguistics (1-4)
GER 460 Topics in German Cinema (4)
GER 490 Senior Capstone Project (1-4)
GER 493 Supervised Foreign Study (1-6)
GER 497 Internship (1-6)
GER 499 Individual Study (1-4)

GERMAN MINOR
Required for Minor: Elementary German or other proof of skill is needed. The intermediate sequence counts toward the minor.

Required for Minor (choose 8-16 credits)
GER 201 Intermediate German I (4)
GER 202 Intermediate German II (4)
GER 293 Supervised Foreign Study: Intermediate (1-4)
GER 299 Individual Study (1-4)
GER 393 Supervised Foreign Study (1-6)
GER 441 Conversation and Composition (4)
GER 442 German Literature (1-4)
GER 443 Topics in German Studies (1-4)
GER 444 Topics in German Linguistics (1-4)
GER 460 Topics in German Cinema (4)
GER 490 Senior Capstone Project (1-4)
GER 493 Supervised Foreign Study (1-6)
GER 497 Internship (1-6)
GER 499 Individual Study (1-4)

COURSE DESCRIPTIONS
GER 101 (4) Elementary German I
Introduction to German for students with little or no language experience.
GE-8

GER 102 (4) Elementary German II
Pre: GER 101 or equivalent
GE-8

GER 150W (4) The German-speaking Countries: An Interdisciplinary Introduction
This course offers an interdisciplinary introduction to the German-speaking countries (Germany, Austria, Switzerland, Liechtenstein); it will provide an overview of their geography, history, culture, society and current political situation in comparison to the U.S.
Variable
WI, GE-6, GE-8
Diverse Cultures - Purple

GER 201 (4) Intermediate German I
A review of German structure and its application to reading, conversation, and composition.
Pre: GER 102 or equivalent
GE-8

GER 202 (4) Intermediate German II
Pre: GER 201 or equivalent
GE-8
Each of the undergraduate programs offered by the Department of Health Science offers a 21 credit Health Science Minor. The Department of Health Science offers undergraduate degrees in Alcohol and Drug Studies, Community Health Education, and School Health Education. It also offers an undergraduate degree in Health and Physical Education in collaboration with the Department of Human Performance. The department also offers a 21 credit Health Science Minor.

Admission Requirements. Please see the admission requirements specific to each of the undergraduate programs offered by the Department of Health Science.

Health Science

College of Allied Health & Nursing
Department of Health Science
213 Highland Center N • 507-389-1527
Website: www.mnsu.edu/dept/health/

Chair: Marlene K. Tappe, Ph.D.

Autumn Hamilton, HSD; Amy Hedman, Ph.D.; Dawn Larsen, Ph.D.; Judith Luebke, Ph.D.; Marge Murray-Davis, Ph.D.; Marlene Tappe, Ph.D.; Mark Windschitl, Ph.D.; Joseph Visker, Ph.D.

GENERAL INFORMATION

Health Science

The Department of Health Science offers undergraduate degrees in Alcohol and Drug Studies, Community Health Education, and School Health Education. It also offers an undergraduate degree in Health and Physical Education in collaboration with the Department of Human Performance. The department also offers a 21 credit Health Science Minor.

Admission Requirements. Please see the admission requirements specific to each of the undergraduate programs offered by the Department of Health Science.

Academic Requirements

Grade Policy. The Department of Health Science requires students in Alcohol and Drug Studies, to earn a “C” or better in all required general education, required, and elective courses in the major. Students in Community Health Education, Health and Physical Education, and School Health Education are required to earn a “C” or better in all required general education (except Chemistry), required major courses (except Human Anatomy), and elective courses in these majors. The department also requires students in the Health Science minor to earn a “C” or better in all core and elective courses in the minor.

Minimum GPA. Policy. The Department of Health Science requires students in Alcohol and Drug Studies, Community Health Education, Health and Physical Education, and School Health Education to maintain a GPA of 2.5 or better in the major (required general education, required, and elective courses in a major). A GPA of 2.5 in the major is required for graduation in Alcohol and Drug Studies, Community Health Education, Health and Physical Education, and School Health Education.

P/N Grading Policy. All required general education, required, and elective courses must be taken for grade except HLTH 495, HLTH 496, and HLTH 497.

Academic Integrity Policy

The Department of Health Science values and supports an environment conducive to learning as well as academic integrity. Therefore, students are expected to comply with Minnesota State Mankato student responsibilities and policies for academic integrity. Academic integrity includes meeting ones responsibilities...
in an honest and forthright manner and avoiding acts of dishonesty, plagiarism, cheating, collusion, and other forms of academic misconduct. An act of dishonesty, cheating, collusion, and/or any other form of academic misconduct will result in a "F" on the assessment and a full letter grade deduction from the final course grade (e.g., "A-" to "B-".). An act of plagiarism will result in a "F" on the assessment or assignments and the student will be required to meet with the chair of the Department of Health Science and receive remediation related to plagiarism. Two acts of dishonesty, cheating, collusion, and/or any other form of academic misconduct and/or an act of plagiarism after remediation will result in a final course grade of "F". Evidence related to any act of academic misconduct will be submitted to the Chairperson of the Department of Health Science. Two acts of academic misconduct or a repeated act of plagiarism after remediation in any Health Science course or courses will result in discontinuance from, or eligibility to enroll in, the academic programs offered by the Department of Health Science. Additionally, evidence related to academic misconduct will be submitted, as appropriate, to the Office of Academic Affairs and/or the College of Education. Please note: Policy reflects minimum departmental standards. Individual instructors may impose more severe sanctions for an act of academic dishonesty within their courses.

**Alcohol and Drug Studies (BS)**

**Program Information.** Students must earn a "C" or better in all required general education, required, and elective courses in the Alcohol and Drug Studies major. Students must also maintain a G.P.A. of 2.5 or better in the major (required general education, required, and elective courses in a major). A G.P.A. of 2.5 in the major is required for graduation in Alcohol and Drug Studies.

**Admission Requirements.** ADS admission requirements include:
- completion of a minimum of 32 credit hours,
- a minimum cumulative G.P.A. 2.5,
- a "C" or better in HLTH 225: Introduction to Alcohol and Drug Studies,
- a "C" or better in two of the following four required General Education courses:
  - CMST 102: Public Speaking,
  - CMST 203: Intercultural Communications,
  - PSYC 101: Introduction to Psychological Science, and/or
  - SOC 101: Introduction to Sociology,
- Meeting with the Alcohol and Drug Studies Coordinator to complete the Alcohol and Drug Studies Program Permission Form and sign the Alcohol and Drug Studies Form of Understanding.

**Internship Pre-requisites.** Pre-requisites for the Alcohol and Drug Studies internship (HLTH 497: Internship: Alcohol and Drug Studies) include:
- a "C" or better in all Major Common Core courses;
- a minimum G.P.A. of 2.5;
- submission of the completed Alcohol and Drug Studies Internship Application Packet one full semester prior to the anticipated beginning of the internship (the packet is available in the Alcohol Drug Studies Student Handbook);
- successful completion of an internship interview with the Alcohol and Drug Studies Coordinator;
- successful completion of a Department of Human Services background check; and
- submission of the internship Site Approval Form signed by an official designee of the approved internship site.

**The Alcohol and Drug Studies Internship.** The internship requires the completion of 880 clock hours at an approved internship site per the Minnesota Board of Behavioral Health and Therapy licensure requirements.

**Chemical Use Problems.** Consistent with standards of practice in the field, students participating in the internship process must be free of chemical use problems for at least two years immediately preceding their internship. Examples of chemical use problems include, but are not limited to:
- receiving treatment for chemical use within this time period
- chemical use that has a negative impact on the student’s academic performance;
- chemical use that affects the student’s professional credibility of treatment services with clients, referral sources, or other members of the community; and
- symptoms of intoxication or withdrawal during academic roles.

**Background Check.** Students involved in any field experience need to undergo a criminal background check prior to registering for HLTH 497 Internship: Alcohol and Drug Studies. Students are responsible for the fees associated with the background check. This information is provided to health agencies and organizations for their determination of suitability for placement. The Department of Health Science coordinates the background check process.

**Licensure and Certification.** The Alcohol and Drug Studies Major provides students with the academic coursework necessary to pursue a number of credentialing options. Students are responsible for verifying their eligibility for credentialing with their respective credentialing boards.

**Community Health Education BS**

**Program Information.** Students must earn a "C" or better in all required general education courses (except Chemistry), required major courses (except Human Anatomy), and elective courses in the Community Health Education major. Students must also maintain a G.P.A. of 2.5 or better in the major (required general education, required, and elective courses). A G.P.A. of 2.5 in the major is also required for graduation in Community Health Education.

**Admission Requirements.** CHE major admission requirements include:
- completion of a minimum of 32 credit hours,
- a minimum cumulative G.P.A. of 2.5,
- a "C" or better in HLTH 101: Health and the Environment,
- a "C" or better in HLTH 260: Introduction to Health Education.

**The Community Health Education Internship.** The internship requires the completion of 450 clock hours at an approved internship site.

**Maximum Number of Credit Hours During the Community Health Education Internship.** Students may take no more than 12 credits of coursework, including 9 credits of HLTH 496: Internship: Health Education, during the internship semester.

**Background Check.** Students involved in any field experience need to undergo a criminal background check prior to registering for HLTH 496 Internship: Health Education. Students are responsible for the fees associated with the background checks. This information is provided to health agencies and organizations for their determination of suitability for placement. The Department of Health Science coordinates the background check process.

**Internship Pre-requisites.** Pre-requisites for the Community Health Education internship (HLTH 496: Internship: Health Education) include:
- a "C" or better in all Major Common Core courses (except Human Anatomy);
- a minimum G.P.A. of 2.5;
- a meeting with the Director of the Community Health Education Internship Program one semester in advance of their anticipated internship semester;
- submission of required application materials by the designated due date;
- official approval of the site by the Internship Director; Note: Eligibility for selection at internship sites may be subject to terms and policies of the internship site (i.e. background checks, criminal history, etc.) and the Community Health Education Program; and
- completion of a criminal background check.

**Health and Physical Education BS**

**Program Information.** This major has two General Education waivers: 40 credits of General Education, and 2) BIOL 220: Human Anatomy and BIOL 310: Human Physiology to meet Goal area 3 lab requirement.

Students must earn a “C” or better in all required general education (except Chemistry) and required courses (except Human Anatomy) in the Health and Physical Education major. Students must also maintain a G.P.A. of 2.5 or better in the major (required general education and required courses). A G.P.A. of 2.5 in the major is also required for graduation in Health and Physical Education.
Admission Requirements. Health and Physical Education major admission requirements include:
• completion of a minimum of 32 credit hours,
• a minimum cumulative G.P.A. of 2.5,
• a “C” or better in ENGL 101, and
• a “C” or better in general education MATH.

Professional Education admission requirements include:
• completion of a minimum of 32 credit hours,
• a minimum of cumulative G.P.A. of 2.75,
• evidence of registration for MTLE Basic Skills Exam,
• enrollment in or completion of KSP 220W,
• a “C” or better in ENG 101, and
• a “C” or better in general education MATH.

School Health Education BS

Program Information. Students must earn a “C” or better in all required general education (except Chemistry), required courses (except Human Anatomy), and elective courses in the School Health Education major. Students must also maintain a G.P.A. of 2.5 or better in the major (required general education, required, and elective courses). A G.P.A. of 2.5 in the major is also required for graduation in School Health Education.

Admission Requirements

School Health Education major admission requirements include:
• completion of a minimum of 32 credit hours,
• a minimum cumulative G.P.A. of 2.5,
• a “C” or better in ENG 101,
• a “C” or better in general education MATH,
• a “C” or better in HLTH 101, and
• a “C” or better in HLTH 260.

Professional Education admission requirements include:
• a minimum of 32 credit hours,
• a minimum of cumulative G.P.A. of 2.75,
• evidence of registration for MTLE Basic Skills Exam,
• enrollment in or completion of KSP 220W,
• a “C” or better in ENG 101, and
• a “C” or better in general education MATH.

ALCOHOL AND DRUG STUDIES MAJOR BS

Degree completion = 120 credits

The Alcohol and Drug Studies major is an interdisciplinary program administered by the Department of Health Science. The program prepares students to enter the addictions field or further their knowledge of addictions to strengthen their competency within other disciplines. The Alcohol and Drug Studies major provides students with the academic coursework necessary to pursue the Licensed Alcohol and Drug Counselor (LADC) credential through the Minnesota Board of Behavioral Health and Therapy and the Board Certified Counselor (BCC) credential through the Minnesota Certification Board. Students are responsible for verifying their eligibility for credentialing within their respective credentialing boards.

Required General Education

CMST 102  Public Speaking (3)
CMST 203  Intercultural Communication (4)
PSYC 101  Introduction to Psychological Science (4)
SOC 101  Introduction to Sociology (3)

Major Common Core

A total of 12 credit hours of HLTH 497 must be completed.
CSP  470  Group Procedures (3)
CSP  471  Interpersonal Helping Skills (3)
CSP  473  Counseling the Chemically Dependent Family (3)
HLTH 225  Introduction to Alcohol and Drug Studies (3)
HLTH 406  Ethics and Professionalism for Addictions Professionals (3)
HLTH 407  Pharmacology for Alcohol and Drug Professionals (3)
HLTH 408  Theories and Methods for Addictions Professionals (3)
HLTH 456  Assessment and Diagnosis of Substance Use Disorders (3)
HLTH 469  Co-Occurring Disorders (3)

Major Restricted Electives

9 credits of Health Science Electives

Required Minor: Yes. Any.

COMMUNITY HEALTH EDUCATION BS

Degree completion = 120 credits

Required General Education

CMST 102  Public Speaking (3)
HLTH 101  Health and the Environment (3)
HLTH 212  Consumer Health (3)

(choose 3 credits. Must complete one of the CHEM courses listed)
CHEM 106  Introduction to Chemistry (3)
CHEM 111  Chemistry of Life Processes (5)
CHEM 201  General Chemistry I (5)

Pre-requisites to the Major

Community Health Education Major admission requirements include completion of a minimum of 32 credit hours, a minimum cumulative G.P.A. 2.5, a “C” or better in HLTH 101: Health and the Environment, and a “C” or better in HLTH 260: Introduction to Health Education.

Major Common Core (44 total credits)

BIOL 220  Human Anatomy (4)
BIOL 310  Basics of Human Physiology (4)
HLTH 260  Introduction to Health Education (3)
HLTH 361  Health Communication and Advocacy (4)
HLTH 380W  Health Education Planning, Implementing, and Evaluating I (3)
HLTH 454  Chronic and Infectious Diseases (3)
HLTH 469  Directed Research in Health Science (3)
HLTH 475  Biostatistics (3)
HLTH 480  Health Education Planning, Implementing and Evaluating 2 (3)
HLTH 482  Administration and Grant Writing in Health Education (4)
HLTH 495  Senior Seminar in Health Education (1)
HLTH 496  Internship: Health Education (1-9)

Major Unrestricted Electives

(Electives: 6 total credits)
FCS 242  Nutrition for Healthcare Professionals (3)
HLTH 210  First Aid & CPR (3)
HLTH 211  Human Sexuality in a World of Diversity (3)
HLTH 225  Introduction to Alcohol and Drug Studies (3)
HLTH 240  Drug Education (3)
HLTH 311  Family Life & Sex Education (3)
HLTH 315  Holistic Health and Wellness (3)
HLTH 321  Medical Terminology (3)
HLTH 400  Women’s Health (3)
HLTH 410  Current Health Issues (3)
HLTH 417  Principles of Wellness Coaching (3)
HLTH 440  Teaching First Aid and CPR (2)
HLTH 441  Death Education (3)
HLTH 450  Environmental Health (3)
HLTH 451  Emotional Health and Stress (3)
HLTH 455  Health and Aging (3)
HLTH 456  Assessment of Chemical Dependency (3)
HLTH 459  Critical Topics in Health (1-3)
HLTH 465  Health Care Delivery in the United States (3)
HLTH 466  Global Health (3)
HLTH 467  Public Health Law (3)
HLTH 469  Chemical Dependency: Dual Diagnosis (3)
HLTH 477  Behavior Change Foundations and Strategies (3)
HLTH 488  Worksite Health Promotion (3)
HLTH 491  Directed Research in Health Science (1-6)
**Required Minor: None**

**HEALTH AND PHYSICAL EDUCATION BS**  
Degree completion = 120 credits

The Health (5-12) and Physical Education (K-12) teaching program meets national and state standards for the preparation of school health educators and physical educators. This program prepares future teachers for what they should know and be able to do in order to help their students’ develop health-related knowledge and skill to engage in healthy behaviors including life-long physical activity. This major is a joint program offered by the Departments of Health Science and Human Performance that meets Minnesota Board of Teaching (BOT) requirements for licensure in both Health Education and Physical Education.

**Required General Education**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 106</td>
<td>Chemistry of Life Process Part I (General)</td>
<td>3</td>
</tr>
<tr>
<td>FCS 140</td>
<td>Introduction to Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 101</td>
<td>Health and the Environment</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 240</td>
<td>Drug Education</td>
<td>3</td>
</tr>
<tr>
<td>HP 182</td>
<td>Aquatic Skills</td>
<td>1</td>
</tr>
<tr>
<td>HP 291</td>
<td>Concepts of Fitness</td>
<td>2</td>
</tr>
<tr>
<td>KSP 220W</td>
<td>Human Relations in a Multicultural Society</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 101</td>
<td>Introduction to Psychological Science</td>
<td>4</td>
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</table>

**Pre-requisites to the Major**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BIOL 220</td>
<td>Human Anatomy</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 310</td>
<td>Basic of Human Physiology</td>
<td>4</td>
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**Major Common Core**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</tr>
</thead>
<tbody>
<tr>
<td>HLTH 210</td>
<td>First Aid &amp; CPR</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 311</td>
<td>Family Life &amp; Sex Education</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 320</td>
<td>School Health Education</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 410</td>
<td>Current Health Issues</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 420W</td>
<td>Health Teaching Methods</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 451</td>
<td>Emotional Health and Stress</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 454</td>
<td>Chronic and Infectious Diseases</td>
<td>3</td>
</tr>
<tr>
<td>HP 202</td>
<td>Introduction to Teaching PE &amp; Health</td>
<td>1</td>
</tr>
<tr>
<td>HP 203</td>
<td>Fundamentals of Indoor and Outdoor Team Sports</td>
<td>2</td>
</tr>
<tr>
<td>HP 204</td>
<td>Fundamentals of Individual and Dual Sports</td>
<td>2</td>
</tr>
<tr>
<td>HP 205</td>
<td>Fundamentals of Rhythm and Dance</td>
<td>2</td>
</tr>
<tr>
<td>HP 348</td>
<td>Structural Kinesiology and Biomechanics</td>
<td>3</td>
</tr>
<tr>
<td>HP 356</td>
<td>Methods of Elementary Physical Education</td>
<td>3</td>
</tr>
<tr>
<td>HP 387</td>
<td>Methods of Secondary Physical Education</td>
<td>3</td>
</tr>
<tr>
<td>HP 411</td>
<td>Developmental/Adapted Physical Education</td>
<td>3</td>
</tr>
<tr>
<td>HP 413</td>
<td>Lifespan Motor Development</td>
<td>2</td>
</tr>
<tr>
<td>HP 414</td>
<td>Physiology of Exercise</td>
<td>3</td>
</tr>
</tbody>
</table>

**Other Graduation Requirements**

K-12 Education: Refer to the list of required professional education courses. KSP 220W Human Relations in a Multicultural Society is included in the required general education section. Therefore, total professional education credits counted in this section will be 27 instead of 30.

**SCHOOL HEALTH EDUCATION BS**  
Degree completion = 120 credits

The School Health Education (5-12) teaching program meets national and state standards for the preparation of school health educators. This program prepares future teachers for what they should know and be able to do in order to help their students develop health-related knowledge and skills to engage in healthy behaviors. This major meets Minnesota Board of Teaching (BOT) requirements for licensure in Health Education.

**Required for General Education**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BIOL 100</td>
<td>Our Natural World</td>
<td>4</td>
</tr>
<tr>
<td>CMST 102</td>
<td>Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>FCS 140</td>
<td>Introduction to Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 101</td>
<td>Health and the Environment</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 210</td>
<td>First Aid and CPR</td>
<td>3</td>
</tr>
<tr>
<td>KSP 220W</td>
<td>Relations in the Multicultural Society</td>
<td>3</td>
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</table>

**Major Common Core**

<table>
<thead>
<tr>
<th>Course</th>
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<tr>
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<td>Human Anatomy</td>
<td>4</td>
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<td>BIOL 310</td>
<td>Basics of Human Physiology</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 106</td>
<td>Chemistry of Life Process Part I (General)</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 212</td>
<td>Consumer Health</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 240</td>
<td>Drug Education</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 260</td>
<td>Introduction to Health Education</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 311</td>
<td>Family Life and Sex Education</td>
<td>3</td>
</tr>
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<td>HLTH 320</td>
<td>Health Teaching Methods</td>
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<td>HLTH 420W</td>
<td>Health Teaching Methods</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 454</td>
<td>Chronic and Infectious Diseases</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 475</td>
<td>Biostatistics</td>
<td>3</td>
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</table>

**Major Restricted Electives (choose 3 credits)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HLTH 361</td>
<td>Health Communication and Advocacy</td>
<td>4</td>
</tr>
<tr>
<td>HLTH 440</td>
<td>Teaching First Aid and CPR</td>
<td>2</td>
</tr>
<tr>
<td>HLTH 441</td>
<td>Death Education</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 450</td>
<td>Environmental Health</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 459</td>
<td>Critical Topics in Health</td>
<td>1-3</td>
</tr>
<tr>
<td>HLTH 460</td>
<td>Introduction to Epidemiology</td>
<td>3</td>
</tr>
<tr>
<td>HP 414</td>
<td>Physiology of Exercise</td>
<td>3</td>
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</tbody>
</table>

**Other Graduation Requirements**

Secondary Education: Refer to the list of required professional education courses. KSP 220W Human Relations in a Multicultural Society is included in the required general education section. Therefore, total professional education credits counted in this section will be 27 instead of 30.

**ALCOHOL AND DRUG STUDIES MINOR**

**Minor Core**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CSP 470</td>
<td>Group Procedures</td>
<td>3</td>
</tr>
<tr>
<td>CSP 471</td>
<td>Interpersonal Helping Skills</td>
<td>3</td>
</tr>
<tr>
<td>CSP 473</td>
<td>Counseling the Chemically Dependent Family</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 225</td>
<td>Introduction to Alcohol and Drug Studies</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 406</td>
<td>Ethics and Professionalism for Addictions</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 407</td>
<td>Pharmacology for Alcohol and Drug Professionals</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 408</td>
<td>Theories and Methods for Addictions</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 456</td>
<td>Assessment and Diagnosis of Substance Use</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 469</td>
<td>Co-Occurring Disorders</td>
<td>3</td>
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</tbody>
</table>

**HEALTH SCIENCE MINOR**

**Minor Core**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HLTH 101</td>
<td>Health and the Environment</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 260</td>
<td>Introduction to Health Education</td>
<td>3</td>
</tr>
</tbody>
</table>

In addition to the Core, choose one 3 credit 200-level course:  

(choose 3 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>HLTH 210</td>
<td>First Aid &amp; CPR</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 211</td>
<td>Human Sexuality in a World of Diversity</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 212</td>
<td>Consumer Health</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 225</td>
<td>Introduction to Alcohol and Drug Studies</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 240</td>
<td>Drug Education</td>
<td>3</td>
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</tbody>
</table>

**Electives**

In addition to the Core, choose 12 credits from the following list of 300 and 400 level courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HLTH 311</td>
<td>Family Life &amp; Sex Education</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 315</td>
<td>Holistic Health and Wellness</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 321</td>
<td>Medical Terminology</td>
<td>3</td>
</tr>
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<td>HLTH 400</td>
<td>Women’s Health</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 410</td>
<td>Current Health Issues</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 417</td>
<td>Principles of Wellness Coaching</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 440</td>
<td>Teaching First Aid and CPR</td>
<td>2</td>
</tr>
<tr>
<td>HLTH 441</td>
<td>Death Education</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 450</td>
<td>Environmental Health</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 451</td>
<td>Emotional Health and Stress</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 454</td>
<td>Chronic and Infectious Diseases</td>
<td>3</td>
</tr>
<tr>
<td>HLTH 455</td>
<td>Health and Aging</td>
<td>3</td>
</tr>
</tbody>
</table>
COURSE DESCRIPTIONS

HLTH 101 (3) Health and the Environment
This course is designed to introduce the wellness concept, encouraging development of physical, mental, social and environmental health of the individual. The course ultimately fosters decision-making through a variety of instructional strategies. Fall, Spring, Summer
GE-10

HLTH 210 (3) First Aid & CPR
Provides the knowledge and skills necessary in an emergency to help sustain life, reduce pain, and minimize the consequences of injury or sudden illness. Includes First Aid certification for the non-professional and all aspects of CPR for the non-professional and professional. Fall, Spring, Summer
GE-11

HLTH 211 (3) Human Sexuality in a World of Diversity
This course is an overview of Human Sexuality with special emphasis on how sexuality relates to marginalized populations. This course requires a supervised field trip. Variable GE-7
Diverse Cultures - Gold

HLTH 212 (3) Consumer Health
This course is designed to examine health products, services, and information from the consumer’s perspective. Emphasis will be placed on those factors that influence and ultimately determine which products, services, and information sources that you will either accept or reject. Fall, Spring, Summer
GE-2

HLTH 215 (1) First Responder/CPR Recertification
This course is for people currently certified (or expired within the last month) in ARC CPR/AED. This course is also for people currently certified (or expired within the last year) in ARC Emergency Response or as a First Responder. Spring

HLTH 225 (3) Introduction to Alcohol and Drug Studies
This course provides information on a variety of topics related to chemical use, abuse and dependency. Students will be exposed to chemical dependency counseling, assessment and intervention techniques. Different drug classifications will be discussed in detail. Counselor core functions and ethics will be discussed also. Fall, Spring, Summer

HLTH 240 (3) Drug Education
Addresses drugs and drug use from psychological, behavioral, pharmacological, historical, legal and clinical perspectives - while examining the effects of drug use on personal health and social functioning. Fall, Spring, Summer
GE-5

HLTH 260 (3) Introduction to Health Education
Introduction to Health Education is required of all Health Science majors and minors. This is the foundation class for the professional preparation of health educators. The course explores the knowledge, skills, and competencies of health educators in various settings. Pre: HLTH 101 Coreq: HLTH 101 Fall, Spring, Summer

HLTH 261 (3) Critical Topics in Health (1-3)
HLTH 460 Introduction to Epidemiology (3)
HLTH 465 Health Care Delivery in the United States (3)
HLTH 466 Global Health (3)
HLTH 467 Public Health Law (3)
HLTH 475 Biostatistics (3)
HLTH 477 Behavior Change Foundations and Strategies (3)
HLTH 488 Worksite Health Promotion (3)
HLTH 491 Directed Research in Health Science (1-6)

HEALTH SCIENCE CONTINUED

HLTH 311 (3) Family Life & Sex Education
Explores biological, physiological, and sociological perspectives of human sexuality. The course examines personal and family relationships and addresses family life and sex education teaching methods for school and community settings. Fall, Spring, Summer

HLTH 315 (2) Holistic Health and Wellness
This course presents a study of the essential nature and characteristics of total health. The course explores dimensions of mental, physical, social, and spiritual wellbeing. Various approaches to holistic health and wellness are considered. Variable

HLTH 320 (3) School Health Education
This course provides School Health teaching majors the knowledge, skills, and dispositions they will need to be a part of a coordinated school health program team and teach comprehensive school health education in middle/junior and senior high schools. Fall

HLTH 321 (3) Medical Terminology
For health care personnel, emphasis on spelling, pronunciation and meaning. Fall, Spring, Summer

HLTH 361 (4) Health Communication and Advocacy
Health Communication and Advocacy focuses upon the development of communication and advocacy skills for the health educator. Identifying credible sources, communicating public health information, health media campaigns, health advocacy; written and verbal communication skills emphasized. Pre: HLTH 260 Fall, Spring

HLTH 380W (3) Health Education Planning, Implementing & Evaluating
This course requires students to plan a health promotion and health education program. Skills include assessing needs, determining objectives, identifying measurement and intervention strategies, and developing an evaluation plan. Pre: HLTH 260, HLTH 361 Coreq: HLTH 361 Fall, Spring WI

HLTH 400 (3) Women’s Health
This course explores current issues, controversies and concerns affecting women’s health. Relationships between social, cultural, psychological, environmental and physical factors of women’s health status are examined. Variable

HLTH 406 (3) Ethics and Professionalism for Addiction Professionals
The focus of this course is on the foundations of ethics and professionalism for addictions professionals. The course will cover professional and ethical codes as well as topics related to continued development as a professional. Pre: HLTH 225 Fall

HLTH 407 (3) Pharmacology for Alcohol and Drug Professionals
This course provides information on characteristic and classifying information, pharmacology, pharmacokinetics, pharmacodynamics, behavioral effects, and pharmacotherapy options for drugs of abuse. The course will focus on the application of topics in alcohol and drug professional settings. Pre: HLTH 225

HLTH 408 (3) Theories and Methods for Addictions Professionals
This course explores counseling theories and strategies and how they can be applied to clients in alcohol and drug treatment programs. The course also provides an overview of primary functions of addictions professionals and methods to deliver effective services. Pre: HLTH 225 Summer
**Health Science Continued**

**HLTH 410 (3) Current Health Issues**
An in-depth review of significant health concerns and controversies in health science using critical thinking as the framework for critiquing the issues.
Fall, Spring
Diverse Cultures - Purple

**HLTH 417 (3) Principles of Wellness Coaching**
This course contains content associated with achieving entry-level certifications for wellness coaching. Health behavior change strategies are emphasized within the context of the health coaching theory, coaching relationship skills, well-being assessment, and goal setting.
Fall, Spring

**HLTH 420 (3) Health Teaching Methods**
This course provides School Health teaching majors the knowledge and skills they will need to be a part of a coordinated school health program team and teach comprehensive school health education in middle/junior and senior high schools.
Pre: HLTH 320
Fall

**HLTH 420W (3) Health Teaching Methods**
This course provides School Health teaching majors the knowledge and skills they will need to be a part of a coordinated school health program team and teach comprehensive school health education in middle/junior and senior high schools.
Pre: KSP 330
Fall, Spring
WI

**HLTH 440 (2) Teaching First Aid and CPR**
American Red Cross instructor certification for Community First Aid and Safety courses. Includes review of course contents, preparation in teaching principles, methods, strategies, course materials and their use, clerical duties, and teaching experience.
Pre: HLTH 210
Summer

**HLTH 441 (3) Death Education**
Explores the relationship of death concerns to the process of meaningful living. Uses a variety of learning strategies to examine death attitudes, values and related behaviors.
Variable

**HLTH 449 (3) Clinical Health Education**
Course is designed for health educators preparing for employment in a medical/health care setting and includes an overview of hospital-clinic based educational program. Patient interviewing and counseling skills are presented for professional and paraprofessional health care personnel. Course emphasis is on developing and preparing a teaching module in patient education.
Pre: HLTH 454
Variable

**HLTH 450 (3) Environmental Health**
To promote identification and analysis of environmental influences upon health status. Health concerns related to residential, occupational, and other environments are explored. Problems pertaining to air, water, solid waste, housing, land use, toxic waste, and sanitation are addressed.
Fall

**HLTH 451 (3) Emotional Health and Stress**
Emphasis is on recognition of, and enhancing awareness about, how stress affects human health and performance. Stress management techniques such as relaxation, effective communication, cognitive-behavioral approaches, eating behaviors, regular exercise, and time management are explored.
Fall, Summer

**HLTH 452 (3) Chronic and Infectious Diseases**
The purpose of this course is to develop the knowledge and understanding of the causes, symptoms and methods of controlling and preventing chronic and infectious diseases. Primary and secondary prevention strategies will be identified. Emphasis will be placed on those behaviors that foster and those that hinder well-being.
Pre: BIOL 220, BIOL 310
Fall, Spring

**HLTH 455 (3) Health and Aging**
This course investigates the physical and mental health concerns of the aging process. Explores specific health problems confronting older persons, and examines preventive health behaviors and health maintenance practices.
Spring, Summer

**HLTH 456 (3) Assessment and Diagnosis of Substance Use Disorders**
This course is designed to provide students with practical knowledge and application techniques in assessing an individual with a chemical use/dependency problem. Various assessment techniques will be presented and discussed as to appropriate utilization. This course meets the criteria or Rule 25 training in Chemical Dependency Assessment.
Pre: HLTH 225
Spring

**HLTH 459 (1-3) Critical Topics in Health**
An in-depth study of specific topics of current interest in the Health Science discipline.
Variable

**HLTH 460 (3) Introduction to Epidemiology**
Examines the philosophy and rationale of current epidemiological practice. Requires the application of epidemiological techniques to selected health concerns. Explores the interaction of agent, host and environment with the emphasis on application of principles of prevention.
Fall, Spring

**HLTH 465 (3) Health Care Delivery in the United States**
An examination of the system of delivery of health care in the United States from a historical, social, political, and economic perspective.
Variable

**HLTH 466 (3) Global Health**
This course focuses on the determinants of health, the concept of culture, and the intersection of health issues, culture, and health status. Linkages between health and development are addressed and research methods instrumental for identifying relationships between culture and health are discussed. The course examines diverse strategies for measuring health and explores how public health efforts (domestic and global) benefit from understanding and working with cultural processes. Emphasis is placed on the burden of disease, risk factors, populations most affected by different disease burdens, and key measures to address the burden of disease in cost-effective ways.
Fall (On-Demand), Spring (On-Demand)
Diverse Cultures - Purple

**HLTH 467 (3) Public Health Law**
An examination of the judicial system and the development, enactment and enforcement of laws as they relate to the public’s health.
Variable

**HLTH 469 (3) Co-Occurring Disorders**
The focus of this course is on assessment and treatment of persons with coexisting mental disorders as well as chemical dependency.
Pre: HLTH 225
Fall

**HLTH 475 (3) Biostatistics**
Introduction to statistical analysis as applied to the health sciences. Examines concepts and methods of statistical procedures applied to health problems and issues.
Pre: MATH 110
Fall, Spring

**HLTH 477 (3) Behavior Change Foundations and Strategies**
Behavior Change Foundations and Strategies (3 semester credits) is a course that focuses upon the complexity of health behavior change and the skills necessary for a health promotion professional to assess, plan, and evaluate behavior change interventions for individuals and communities. Health behavior change theories and strategies will be discussed. Topics covered in class will include: behavior modification, goal setting, self-management, coping skills, and social support. Emphasis will also be given to the impact of policy and environmental influences on behavior.
Fall, Spring
History

College of Social & Behavioral Sciences
Department of History
110B Armstrong Hall • 507-389-1618
Website: www.mnsu.edu/history/

Chair: H. Matthew Loayza
Melodie J. Andrews, Angela Jill Cooley, Christopher R. Corley, Kathleen L. Gorman, Lori Ann Lahlum, H. Matthew Loayza, Marlene Medrano, Agnes Odinga, Tao Peng

The study of history is the attempt to understand and interpret past human societies. It provides both the joy and anguish of contemplating collective experiences, and presents insights that could produce a better future for the human race. History also opens a panorama of enormous variety in human experiences, values, and customs, which provide enjoyment and from which society can also learn wisdom, mutual respect, and tolerance.

POLICIES/INFORMATION

Admission to Major. Admission to major is granted by the department. Minimum university admission requirements are:
- a minimum of 32 earned semester credit hours.
- a minimum cumulative GPA of 2.00 ("C").
Contact the department for application procedures.

GPA Policy. A minimum cumulative grade-point average of 2.0 is required in the major.

Pass/No Credit Policy. Undergraduate history courses may be taken either for P/N or letter grading except HIST 490 (workshops), HIST 497 (1-12 credits), and HIST 499 (1-3 credits), which are available only on P/N grading. However, majors and minors in history and majors in social studies (history core) must take all history courses, other than those enumerated, for a letter grade. No more than one-fourth of the credits in a history major or minor may be taken as P/N.

Transfer Policy. Transfer students should come to the Department of History to have their transfer credits reviewed prior to registration for classes.

Residency Requirement. All transfer students majoring in history are required to take at least 9 semester credits at the Minnesota State Mankato Department of History. All transfer students minoring in history are required to take at least 6 semester credits at the Minnesota State Mankato Department of History.

In order to provide broad preparation for graduate study, history majors of superior ability may read for honors in three different areas [see HIST 390 (1) - HIST 392 (1)]. To be eligible, a student must have completed at least 14 credits of history courses and have earned a grade-point average of 3.5 in history. The student may enroll for one honors course a semester. Honors credit may be counted for the history major and social studies (history core). Students who successfully complete these three courses with a grade-point average of 3.5 for all history courses (and who have met the other degree requirements) will be eligible for graduation “with distinction in history.”

Students interested in teaching history should see the Social Studies section for information on the major in Social Studies with a History Concentration BS, Teaching.
**HISTORY BA**
Degree completion = 120 credits

**Major Common Core**

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**Survey Sequence** (choose 8 credits)

Student must take one of the survey sequences (World History, European History, or United States History).

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<td>World Civilization, 1500 - Present (4)</td>
</tr>
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</tr>
<tr>
<td>HIST 180</td>
<td>European History to 1648 (4)</td>
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<td>HIST 180W</td>
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<td>HIST 181</td>
<td>European History: 1648 to the Present (4)</td>
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<tr>
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</table>

**Major Unrestricted Electives**

Upper Division Courses and Distribution Requirement (choose 24 credits)

At least one 300-400 level course must be taken from each of the following areas:

United States, Europe, Third World (Africa, Asia, Latin America, or Middle East)

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<td>HIST 430</td>
<td>United States: Selected Topics (1–4)</td>
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<td>HIST 431</td>
<td>European History: Selected Topics (1–4)</td>
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<tr>
<td>HIST 434</td>
<td>East Asian History: 1800-1945 (4)</td>
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<td>HIST 436</td>
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<td>HIST 497</td>
<td>Internship (1-12)</td>
</tr>
<tr>
<td>HIST 499</td>
<td>Individual Study (1-3)</td>
</tr>
</tbody>
</table>

**Other Graduation Requirements:**

Required for Bachelor of Arts (BA) degree ONLY: Language: (8 credits)

**Required Minor:** Yes. Any.

**HISTORY BS**
Degree completion = 120 credits

**Major Common Core**

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**Major Restricted Electives**

Survey Sequence (choose 8 credits)

Student must take one of the survey sequences (World History, European History, or United States History).

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**Major Unrestricted Electives**

Upper Division Courses and Distribution Requirement (choose 24 credits)

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HIST 490 Workshops (1-4)
HIST 497 Internship (1-12)
HIST 499 Individual Study (1-3)

Required Minor Yes, Any

HISTORY MINOR

Minor Requirements. A minor in history consists of 18 semester hours with a minimum of 9 semester hours at the 300-400 level.

COURSE DESCRIPTIONS

HIST 155 (3) History of the Family in America
This course is designed to provide an overview and analysis of the historical experiences of the family in the United States from earliest settlement to the present in order to aid students in understanding the contemporary situation of the family in American society.
Variable
GE-5, GE-7
Diverse Cultures - Purple

HIST 170W (4) Ancient World Civilization to 1500
A history of the physical, political, cultural, social, and economic foundations of world civilizations to 1500.
Fall, Spring
GE-5, GE-8

HIST 260W (4) Introduction to Traditional East Asian Civilization
A survey of traditional East Asian civilization — particularly China and Japan — from the beginning to the 19th century.
GE-5, GE-8
Diverse Cultures - Purple

HIST 390 (1) Readings for Honors: United States History
Pre: 14 semester credits of History with minimum GPA of 3.5
Fall, Spring
HIST 435 (4) East Asian History: 1800-1945
A comparative history of the Chinese and Japanese nations from the 19th century to 1945.
Variable

HIST 436 (4) History of East Asian Relations with the United States
History of relations of major East Asian countries with the United States from the late 18th century to the present.
Variable

HIST 437 (4) African History to 1800
Investigation of historical developments across the African continent from prehistory through the eighteenth century. Topics will include ancient empires of West Africa, the Swahili coast, the spread of Islam, the trans-Atlantic slave trade, and the formation of South Africa’s multi-racial society.
Variable

HIST 438 (4) Modern Africa
Investigation of historical developments in Sub-Saharan Africa during the nineteenth and twentieth centuries. Topics will include trade with Europe and America, European colonization and African resistance, life in colonial Africa, independence movements, South Africa’s apartheid state and the Rwanda genocide.
Variable

Diverse Cultures - Purple

HIST 442 (4) History of Latin America
Review of Latin American history from Ancient American Civilizations to the present.
Variable

Diverse Cultures - Purple

HIST 452 (4) Minnesota History
This course will examine Minnesota’s social, political, and economic development from the earliest human habitation to the present.

Variable

Diverse Cultures - Purple

HIST 455 (4) Revolutionary & Early National America 1763-1820
This course will examine the social, economic, ideological, political, diplomatic, and military experiences of the United States between 1763 and 1820, in order to understand the creation of the American political nation and the culture which developed within it.
Variable

Diverse Cultures - Purple
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<td>HIST 458</td>
<td>U.S. History 1820-1861</td>
<td>This course will discuss the social, economic, and political issues from the rise of Jackson through the beginning of the Civil War. Major issues to be covered include: Jacksonian Democracy, Industrialization, Reform, Westward Expansion, Slavery, and the 1850's.</td>
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<td>salvation.</td>
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<td>HIST 459</td>
<td>U.S. History 1861-1900</td>
<td>This course will explore the immediate causes and consequences of the Civil War as well as the rise of an industrial/urban United States. Major issues to be covered include: causes of the Civil War, the war itself, Reconstruction, the Gilded Age, and Populism.</td>
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<td>HIST 460</td>
<td>U.S. History, 1900-1945</td>
<td>Reform/domestic themes and U.S. foreign policies during the Progressive Era, the &quot;Roaring 20's,&quot; the Great Depression and the New Deal, and the two world wars.</td>
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<tr>
<td>HIST 461</td>
<td>U.S. History, 1945-Present</td>
<td>Social, political and foreign affairs since World War II.</td>
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<td>HIST 462</td>
<td>U.S. History of U.S. Foreign Relations, 1775-1900</td>
<td>This course will examine the economic, strategic, and ideological factors shaping American foreign policy from 1775 to 1900. Students will examine how U.S. policy makers defined their goals and how their assumptions led the United States to pursue territorial and commercial expansion.</td>
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<tr>
<td>HIST 463</td>
<td>History of U.S. Foreign Relations in the Twentieth Century</td>
<td>An examination of the major factors influencing U.S. diplomacy since 1900. Students will examine how influential policy makers defined their diplomatic goals, and how both domestic and external factors have contributed to America’s reaction to wars and revolutions around the world.</td>
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<td>HIST 464</td>
<td>United States Women’s History</td>
<td>This course is designed to provide a survey and analysis of the historical experiences of women in the United States from earliest settlement by indigenous peoples to the present in order to aid students in understanding the contemporary situation of women in American society.</td>
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<tr>
<td>HIST 465</td>
<td>American Social and Cultural History</td>
<td>Topics in intellectual history or popular and traditional culture.</td>
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<td>HIST 466</td>
<td>U.S. Constitutional History to 1896</td>
<td>This course examines U.S. constitutional history from its English foundations to 1896. Students will read and analyze court decisions and discuss how legal history reflects American society, culture, politics, and economics during this period.</td>
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<tr>
<td>HIST 467</td>
<td>U.S. Constitutional History from 1896</td>
<td>This course examines U.S. constitutional history from 1896 to the present. Students will read and analyze court decisions and discuss how legal history reflects American society, culture, politics, and economics during this period.</td>
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<td>HIST 468</td>
<td>American Frontier</td>
<td>Occupation of the area between the Mississippi and the Pacific from Spanish exploration to the late 19th century.</td>
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<td>HIST 469</td>
<td>20th Century American West</td>
<td>This course looks at the social, political, and economic developments that transformed the 20th Century American West.</td>
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<td>HIST 470</td>
<td>Comparative Slavery and Emancipation</td>
<td>This course will discuss slavery and emancipation in the Atlantic World (Africa, Latin America, and the United States). Students will discover how slavery and emancipation differed in various regions and over time.</td>
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<td>HIST 472</td>
<td>U.S. Civil Rights Since 1945</td>
<td>This course will examine the Civil Rights Movement, broadly defined, from 1945 to the present, but focusing on the period from 1945 to 1970. We will also explore the way in which African Americans and their white supporters mobilized for equality in the face of massive white resistance and seeming federal indifference.</td>
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<td>HIST 473</td>
<td>American Environmental History</td>
<td>A historical study of the immigration and ethnic experience in America. Includes an examination of political, social, and economic changes that resulted in population movements to the U.S. and of the development of immigration laws in response to the arrival of &quot;outsiders.&quot; Attention is given to the rise of anti-immigrant movements at various times in American history.</td>
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<td>HIST 474</td>
<td>History of American Immigration and Ethnicity</td>
<td>This course will examine the interaction between humans and the American environment from pre-Columbus to the present.</td>
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<tr>
<td>HIST 475</td>
<td>United States Women’s History</td>
<td>This course is designed to provide a survey and analysis of the historical experiences of women in the United States from earliest settlement by indigenous peoples to the present in order to aid students in understanding the contemporary situation of women in American society.</td>
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<tr>
<td>HIST 476</td>
<td>American Labor History</td>
<td>This course will examine the intersection of labor movements to the U.S. and of the development of immigration laws in response to the arrival of “outsiders.” Attention is given to the rise of anti-immigrant movements at various times in American history.</td>
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<tr>
<td>HIST 477</td>
<td>American Social and Cultural History</td>
<td>Topics in intellectual history or popular and traditional culture.</td>
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<tr>
<td>HIST 478</td>
<td>American Women’s History</td>
<td>An examination of the history of labor and the emergence of social welfare within the context of the modernization of western society and the diversity of the United States.</td>
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<tr>
<td>HIST 479</td>
<td>African American History</td>
<td>This course will examine the Civil Rights Movement, broadly defined, from 1945 to the present, but focusing on the period from 1945 to 1970. We will also explore the way in which African Americans and their white supporters mobilized for equality in the face of massive white resistance and seeming federal indifference.</td>
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<tr>
<td>HIST 480</td>
<td>American Social and Cultural History</td>
<td>Topics in intellectual history or popular and traditional culture.</td>
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<tr>
<td>HIST 481</td>
<td>History of American Immigration and Ethnicity</td>
<td>A historical study of the immigration and ethnic experience in America. Includes an examination of political, social, and economic changes that resulted in population movements to the U.S. and of the development of immigration laws in response to the arrival of “outsiders.” Attention is given to the rise of anti-immigrant movements at various times in American history.</td>
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<tr>
<td>HIST 482</td>
<td>History of American Immigration and Ethnicity</td>
<td>This course will examine the interaction between humans and the American environment from pre-Columbus to the present.</td>
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<tr>
<td>HIST 483</td>
<td>United States Women’s History</td>
<td>This course is designed to provide a survey and analysis of the historical experiences of women in the United States from earliest settlement by indigenous peoples to the present in order to aid students in understanding the contemporary situation of women in American society.</td>
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<td>HIST 484</td>
<td>American Environmental History</td>
<td>This course will examine the intersection of labor movements to the U.S. and of the development of immigration laws in response to the arrival of “outsiders.” Attention is given to the rise of anti-immigrant movements at various times in American history.</td>
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<td>HIST 485</td>
<td>United States Women’s History</td>
<td>This course is designed to provide a survey and analysis of the historical experiences of women in the United States from earliest settlement by indigenous peoples to the present in order to aid students in understanding the contemporary situation of women in American society.</td>
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<td>HIST 486</td>
<td>American Environmental History</td>
<td>This course will examine the interaction between humans and the American environment from pre-Columbus to the present.</td>
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<td>HIST 487</td>
<td>United States Women’s History</td>
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<td>HIST 488</td>
<td>American Social and Cultural History</td>
<td>Topics in intellectual history or popular and traditional culture.</td>
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<td>HIST 489</td>
<td>African American History</td>
<td>This course will examine the Civil Rights Movement, broadly defined, from 1945 to the present, but focusing on the period from 1945 to 1970. We will also explore the way in which African Americans and their white supporters mobilized for equality in the face of massive white resistance and seeming federal indifference.</td>
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<td>HIST 491</td>
<td>African American History</td>
<td>This course will examine the Civil Rights Movement, broadly defined, from 1945 to the present, but focusing on the period from 1945 to 1970. We will also explore the way in which African Americans and their white supporters mobilized for equality in the face of massive white resistance and seeming federal indifference.</td>
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<td>HIST 492</td>
<td>African American History</td>
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<td>African American History</td>
<td>This course will examine the Civil Rights Movement, broadly defined, from 1945 to the present, but focusing on the period from 1945 to 1970. We will also explore the way in which African Americans and their white supporters mobilized for equality in the face of massive white resistance and seeming federal indifference.</td>
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<tr>
<td>HIST 495</td>
<td>Senior Seminar</td>
<td>This seminar will include a discussion of the history of the discipline of history, an introduction to research methodologies, and the nature of historical writing. Each student will write a research paper as part of the course. Required for history majors.</td>
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<tr>
<td>HIST 496</td>
<td>Workshops</td>
<td>Specific titles to be announced in departmental course descriptions.</td>
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<tr>
<td>HIST 497</td>
<td>Advanced African-American History</td>
<td>A course which deals with the main themes in African-American history and their interpretations.</td>
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<tr>
<td>HIST 498</td>
<td>Vietnam War</td>
<td>This course will examine the Vietnam War. Students will discover how and why the U.S. became involved in Vietnam, examine the specific problems faced by American diplomats and military officials, and how the war affected American society.</td>
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<td>HIST 499</td>
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Honors

**College of Graduate Studies and Research**
265 Morris Hall: 507-389-5191
Website: www.mnsu.edu/honors

Director: Anne Dahlman
Assistant Director: Giovanna Walters

**Honors Program Faculty:** Kellian Clink (Library Services); Christopher Corley (History); Kristen Cvnacara (Communication Studies); Anne Dahlman (Honors); Julie Kerr-Berry (Theatre and Dance); Rosemary Krawczyk (Psychology); Teresa Kruizenga (Educational Studies: K-12 and Secondary Programs); Justine Martin (Library Services); Martin Mitchell (Geography); Giovanna Walters (Honors)

**Mission Statement:** The mission of the Honors Program at Minnesota State Mankato is to encourage future leaders, researchers, and global citizens by providing high ability and motivated students with exceptional learning opportunities, mentoring relationships, and a community of scholars that foster their development as future leaders in a global society.

**Program Overview:** The Honors Program is dedicated to the development of three main competencies: leadership, research, and global citizenship. Students can choose between two honors designations. Students who enroll in a 14-credit Honors Program that includes 6 credits of Honors General Education courses and 8 honors credits will graduate with the designation: Honors Program Graduate with Distinction. Students who participate in an abbreviated 8-credit honors curriculum will graduate with the designation: Honors Program Graduate. As students move into courses within their major, they further develop their honors competencies through advanced honors seminars and individualized plans of study. Throughout their time at the University, students will participate in co-curricular activities which complement their plan of study. At the culmination of all coursework, seniors are required to demonstrate acquisitions of the leadership, research, and global citizenship competencies through a successful presentation and defense of an honors portfolio in HONR 475: Honors Portfolio.

**POLICIES/INFORMATION**

**Admission to the Honors Program:** The Honors Director, in consultation with the Honors Council, grants admission to the Honors Program. No predetermined test score or class rank guarantees or precludes admission. The selection committee considers the applicant’s demonstrated academic excellence and inquisitiveness. Contact the Honors Program Director for application forms and procedures.

**GPA Policy.** Students must maintain a minimum overall 3.3 GPA to register for honors courses.

**Pass/No Credit Policy.** All of the Honors courses (including honors sections of general education courses and honors seminars) must be taken for a letter grade, except for HONR 475, which is only taken as pass/no credit.

**Transfer Policy.** Transfer students should contact the Honors Program Director to have their transfer credits reviewed when they submit the application for admission.

The Honors Program Graduate with Distinction track requires a core program of 14 credit hours. The Honors Program Graduate track requires 8 credit hours.

**Required Courses (2 credits)**
- FYEX 100 First Year Seminar (1) OR
- HONR 201 Introduction to Honors (1)
- HONR 475 Honors Portfolio (1)

**Required Honors Sections of General Education Courses** (6 credits)
Students must take at least 6 credits of designated Honors sections of General Education courses. Upon permission of the Director, students can substitute up to 6 credits of Honors General Education courses by taking upper-level credits beyond the 7 required credits.

**Required Honors Seminars (6 credits)**
Students must complete a total of 6 credit hours of HONR 401. Course may be repeated for credit for each new topic. Students can substitute up to 3 credits of HONR 401 with HONR 450, HONR 455, or HONR 499.

- HONR 401 Honors Seminar (1-3)

* For students who pursue the Honors Program Graduate with Distinction track

**Language Requirement.** In addition to their coursework, all honors students will demonstrate competency in a second language according to the American Council on the Teaching of Foreign Languages “Intermediate Mid” level (for students continuing a language studied in high school) or “Intermediate Low” (for students studying a new language). Competency can be demonstrated through course completion or via examination.

**COURSE DESCRIPTIONS**

**HONR 201 (1) Introduction to Honors**
This course is required for students who transfer into the Honors program or who join without taking the FYEX course. This course provides an orientation to the mission and core competencies of the Honors Program. Students will analyze and categorize leadership, research, and global citizenship themes, identify appropriate learning goals, and develop an e-portfolio for their use in the Honors Program.

**HONR 250 (1-6) Honors Service Learning**
One way to meet Honors Program requirements is through Service-Learning. Students will develop meaningful Service-Learning activities which will involve an action and reflection dynamic. May be taken as traditional course or individually in consultation with the Honors Program Director.

**HONR 255 (1-6) Honors Practicum**
Honors students may engage in significant learning experiences outside of the traditional classroom setting. A practicum typically begins with student interest that turns into an educational activity. Practicums will be individually determined in consultation with the Honors Program Director.

**HONR 401 (1-4) Honors Seminar**
Seminars are offered by University faculty from a wide variety of disciplines. In addition, interdisciplinary seminars can be offered.

**HONR 450 (1-6) Honors Service Learning**
One way to meet Honors Program requirements is through Service-Learning. Students will develop meaningful Service-Learning activities which will involve an action and reflection dynamic. May be taken as traditional course or individually in consultation with the Honors Program Director.

**HONR 455 (1-6) Honors Practicum**
Honors students may engage in significant learning experiences outside of the traditional classroom setting. A practicum typically begins with student interest that turns into an educational activity. Practicums will be individually determined in consultation with the Honors Program Director.

**HONR 475 (1) Honors Portfolio**
This required course allows the student to articulate where and how he or she has demonstrated the mission and core competencies of the Honors Program. Students will analyze and defend an honors portfolio in HONR 475: Honors Portfolio.

**HONR 499 (1-6) Individual Study**
To be arranged with Honors Program Director.
The Humanities Program offers an interdisciplinary approach to examine the common issues, ideas, and themes that run throughout different cultures and throughout human history. The program uncovers the creative side of the human spirit and crosses the boundaries of the shared human experience—the places where dreams meet reality, art meets life and technology meets nature.

By studying literature, arts, and philosophical and religious traditions from ancient to contemporary times, students are able to understand their connections to each other and to the world. A Humanities degree provides the essential tools employers are looking for: communication, creativity, collaboration, and critical thinking.

The major and minor offered by the Humanities Programs help students to become deep thinkers, connection makers, and problem solvers. Students will improve their writing skills and expand their critical thinking skills, as well as sharpen their understanding of different human perspectives.

POLICIES/INFORMATION

Admission to Major is granted by the department. Minimum university admission requirements are:
- a minimum of 32 earned semester credit hours.
- a minimum cumulative GPA of 2.00 (“C”).

Contact the program for application procedures.

GPA Policy. Candidates for a major in Humanities must maintain a 2.5 grade-point average in the major.

P/N Grading Policy. Humanities core courses taken for a major or minor in Humanities may not be taken on a P/N basis.

HUMANITIES BA
Degree completion = 120 credits

Major Common Core
HUM 282W Global Perspectives and Humanities Traditions (4)
HUM 350 Reading in Humanities (1-4)
HUM 380 Topics in Humanities (4)
HUM 450W Humanities Seminar (4)
HUM 490 Senior Capstone Project (4)

Major Restrictive Electives (choose 15 credits)
ART 260 Art History Survey I (3)
ART 261 Art History Survey II (3)
ART 265W Art As Politics (3)
ART 416 Art of Africa, the Americas, and the South Pacific (3)
ART 417 Medieval Art and Architecture (3)
ART 434 Arts Administration (3)
ART 460 Ancient Art (3)
ART 462 Renaissance Art (3)
ART 467 Art of the Islamic World (3)
ART 469 Asian Art (3)
ENG 318 Multicultural Literature (2-4)
ENG 433 Selected Studies in World Literature (4)
ENG 435 The World Novel (2-4)
ENG 436 Native American Literature (2-4)
ENG 438 African American Literature (2-4)
ENG 481 History of the English Language (4)
HUM 101W Introduction to Humanities (4)
HUM 150 Western Humanities I: Beginnings through the Renaissance (4)
HUM 151 Western Humanities II: Renaissance through the Present (4)
HUM 155 Global Humanities I (4)
HUM 156 Global Humanities II (4)
HUM 250W Perspectives in Humanities (4)
HUM 280W Humanities Traditions (4)
HUM 281W Human Diversity and Humanities Traditions (4)
HUM 498 Internship (1-4)
HUM 499 Individual Study (1-4)
MUS 321W Music Literature and History I (3)
MUS 322W Music Literature and History II (3)
PHIL 334W History of Philosophy: Classical Philosophy (3)
PHIL 336W History of Philosophy: Renaissance and Modern Philosophy (3)
PHIL 337 19th Century Philosophy (3)
PHIL 338 American Philosophy (3)
PHIL 358W Eastern Philosophy (3)
PHIL 361 Philosophy of Religion (3)
PHIL 460 Philosophy of the Arts (3)

Other Graduation Requirements:
Required for Bachelor of Arts (BA) degree ONLY: Language (8 credits)

Required Minor. Any.

HUMANITIES MINOR

Required for Minor (20 credits)
(choose 1 course in each of the following categories for a total of 4 credits)
Western
HUM 150 Western Humanities I: Beginning through the Renaissance (4)
HUM 151 Western Humanities II: Renaissance through the Present (4)

Global
HUM 155 Global Humanities I (4)
HUM 156 Global Humanities II (4)

Perspectives and Traditions
HUM 250W Perspectives in Humanities (4)
HUM 280W Humanities Traditions (4)
HUM 281W Human Diversity and Humanities Traditions (4)
HUM 282W Global Perspectives and Humanities Traditions (4)

Comparative Studies
HUM 350 Reading in Humanities (1-4)
HUM 380 Topics in Humanities (4)

Capstone
HUM 450W Humanities Seminar (4)
HUM 490 Senior Capstone Project (4)
HUM 498 Humanities Internship (1-4)

COURSE DESCRIPTIONS

HUM 101W (4) Introduction to Humanities and the Search for Meaning
An introduction to Humanities and its themes of study, including an exploration of the diversity of world cultures and multiple forms of creativity and expression, and aspects of interactions among peoples across the world. Students will think critically about and increase their understanding of diverse human perspectives and global relationships.

Variable
Wl, GE-6, GE-8

HUM 150 (4) Western Humanities I: Beginnings through the Renaissance
An introduction to the interdisciplinary study of the Western Humanities, from ancient times through the Renaissance. Artistic, philosophical and religious forms of cultural expression are considered within their social and historical contexts.

ALF-Fall
GE-6

HUM 151 (4) Western Humanities II: Renaissance through the Present
An introduction to the interdisciplinary study of the Western Humanities, from the Renaissance to the present. Artistic, philosophical and religious forms of cultural expression are considered within their social and historical contexts.

ALF-Spring
GE-6

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HUM 155 (4) Global Humanities I
An introduction to the interdisciplinary study of the humanities, as expressed through the cultures and traditions of the Middle East, North Africa, South Asia, and East Asia. Artistic, philosophical and religious forms of cultural expression are considered within their social and historical contexts.
ALT-Fall
GE-6, GE-8

HUM 156 (4) Global Humanities II
An introduction to the interdisciplinary study of the humanities, as expressed through the cultures and traditions of sub-Saharan Africa, Latin America, and the Pacific region. Artistic, philosophical and religious forms of cultural expression are considered within their social and historical contexts.
ALT-Spring
GE-6, GE-8
Diverse Cultures - Purple

HUM 250 (2-4) Perspectives in Humanities
Explores the critical analysis of written, visual and/or musical texts; considers these texts from a variety of cultural and historical contexts; and analyzes issues that engage basic questions of human existence, for individuals and societies. May be repeated when topic changes.
Variable
GE-6

HUM 250W (4) Perspectives in Humanities
Explores the critical analysis of written, visual and/or musical texts; considers these texts from a variety of cultural and historical contexts; and analyzes issues that engage basic questions of human existence, for individuals and societies. May be repeated when topic changes.
Variable
WI, GE-6
Diverse Cultures - Purple

HUM 280 (2-4) Humanities Traditions
Historical or cultural periods, beliefs, or movements within the larger Western traditions of Europe and America and the expressions of these traditions through the visual, literary and performing arts and other forms. May be repeated when topic changes.
Variable
WI, GE-6

HUM 280W (4) Humanities Traditions
Historical or cultural periods, beliefs, or movements within the larger Western traditions of Europe and America and the expressions of these traditions through the visual, literary and performing arts and other forms. May be repeated when topic changes.
Variable
WI, GE-6

HUM 281W (4) Human Diversity and Humanities Traditions
Cultural and artistic traditions of groups that have experienced discrimination or exclusion in U.S. society and how these groups express themselves through the visual, literary and performing arts and other forms. May be repeated when topic changes.
Variable
WI, GE-6, GE-7
Diverse Cultures - Purple

HUM 282W (4) Global Perspectives and Humanities Traditions
Historical or cultural periods, beliefs, or movements of one or more groups outside Europe and America and the expressions of these traditions through the visual, literary and performing arts and other forms. May be repeated when topic changes.
Variable
WI, GE-6, GE-8
Diverse Cultures - Purple

HUM 282W (4) Global Perspectives and Humanities Traditions
Topics in Humanities will be a variable-title course that explores special topics in common issues, ideas, and themes that run throughout different cultures and throughout human history. May be repeated with different topics.

HUM 283W (4) Cultural Studies
Topics in Humanities will be a variable-title course that explores special topics in common issues, ideas, and themes that run throughout different cultures and throughout human history. May be repeated with different topics.

HUM 284W (4) Cultural Studies
Topics in Humanities will be a variable-title course that explores special topics in common issues, ideas, and themes that run throughout different cultures and throughout human history. May be repeated with different topics.

HUM 450W (4) Humanities Seminar
Intensive study of a topic related to the Humanities. Topics have included the Baroque Era, Modernism and the Arts, and Culture and Critical Theory.
Pre: HUM 282W
Fall (On-Demand), Spring (On-Demand)

HUM 450W (4) Humanities Seminar
Independent study in an area for which the student has basic preparation. Requires approval of the Humanities Program Director.

HUM 490 (4) Senior Capstone Project
An individual project by Humanities Majors that will demonstrate an ability to use interdisciplinary methods to draw together different areas of study in focusing on a specific topic, problem or concern. Requires approval of the Humanities Director or designated advisor.
Pre: Admission to college as Humanities Major

HUM 498 (1-4) Humanities Internship
An applied work and learning experience in the field of interdisciplinary Humanities.
Pre: HUM 282W, advanced standing in Humanities and consent of instructor. On-Demand

HUM 499 (1-4) Individual Study
Interdisciplinary study in an area for which the student has basic preparation.
Pre: Approval of faculty.

HUMANITIES CONTINUED

HUMAN PERFORMANCE

Human Performance
College of Allied Health & Nursing
Department of Human Performance
1400 Highland Center • 507-389-6313
Website: www.mnsu.edu/dept/colahn/bp.html
Chair: Robert Pettitt

Suzannah Armentrout, Jedediah Blanton, Matthew Buns, Cindra Kamphoff, Jon Lim, Theresa Mackey, Cherie Pettitt, Bryan Romsa, Patrick Sexton, Mary Visser

POLICIES/INFORMATION

Admission to Major
Admission to Major is granted by the department. Minimum university admission requirements are:
- a minimum of 32 earned semester credit hours.
- a minimum cumulative GPA of 2.5 (“C”) or above.
Students are encouraged to consult with appropriate advisors for additional departmental requirements.

Candidates of the Health and Physical Education teaching degree and DAPE minor in the department must have a cumulative grade point average of 2.5 or above to be admitted to the Department of Human Performance and Professional
Education. A grade of “C” or better is required in all courses in the major and minor. Candidates may not take any course in the major and minor from the department as independent studies.

Students in the School Health and Physical Education program are required to complete 40 credits of General Education courses in 11 Goal Areas for graduation.

Students planning to major in the College of Allied Health and Nursing have an advisor from their area of interest assigned to them. Questions and concerns pertaining to advising and the assignment of advisors can be answered by Shirley Murray, student relations coordinator, 124 Myers Field House, 507-389-6315.

HEALTH AND PHYSICAL EDUCATION BS
Degree completion = 120 credits

The Health and Physical Education teaching program meets national and state standards for the preparation of school health educators and physical educators. This program prepares future teachers for what they should know and be able to do in order to help their students develop health-related knowledge and skill to engage in healthy behaviors including life-long physical activity.

Required General Education
CHEM 106 Chemistry of Life Process Part I (General) (3)
FCS 140 Introduction to Nutrition (3)
HLTH 212 Consumer Health (3)
HLTH 240 Drug Education (3)
HP 182 Aquatic Skills (1)
HP 291 Concepts of Fitness (2)
KSP 220W Human Relations in a Multicultural Society (3)
PSYC 101 Introduction to Psychological Science (4)

Pre-requisites to the Major
BIOL 220 Human Anatomy (4)
BIOL 310 Basic of Human Physiology (4)

Major Common Core
HLTH 210 First Aid & CPR (3)
HLTH 311 Family Life & Sex Education (3)
HLTH 320 School Health Education (3)
HLTH 410 Current Health Issues (3)
HLTH 420W Health Teaching Methods (3)
HLTH 451 Emotional Health and Stress (3)
HLTH 454 Chronic and Infectious Diseases (3)
HP 202 Introduction to Teaching PE & Health (1)
HP 203 Fundamentals of Indoor and Outdoor Team Sports (2)
HP 204 Fundamentals of Individual and Dual Sports (2)
HP 205 Fundamentals of Rhythm and Dance (2)
HP 348 Structural Kinesiology and Biomechanics (3)
HP 356 Methods of Elementary Physical Education (3)
HP 387 Methods of Secondary Physical Education (3)
HP 411 Developmental/Adapted Physical Education (3)
HP 413 Lifespan Motor Development (2)
HP 414 Physiology of Exercise (3)

Required Support Courses for Minor
SPED 405 Special Education, 3 credits

Required for Minor
HP 411 Developmental Adapted Physical Education (3)
HP 412 Assessment in Adapted Physical Education (2)
HP 413 Lifespan Motor Development (2)
HP 421 Teaching Sport to Individuals with Disabilities (2)
HP 422 Teaching Adapted Aquatics (2)
HP 445 Teaching Students with Cognitive & Emotional/Behavioral Disabilities (3)
HP 471 Consulting Techniques in Developmental Adapted Physical Education (3)
HP 493 Internship in Developmental Adapted Physical Education (2)

Other Graduation Requirements
Secondary Education: Refer to the list of required professional education courses. KSP 220W Human Relations in a Multicultural Society is included in the required general education section. Therefore, total professional education credits counted in this section will be 27 instead of 30.

DEVELOPMENTAL ADAPTED PHYSICAL EDUCATION, TEACHING MINOR (DAPE)

Most school districts in Minnesota now require physical education teachers to have licensure in Developmental Adapted Physical Education (DAPE) to obtain or retain their teaching positions. In addition to DAPE licensure to teach students with disabilities, a DAPE minor makes prospective teachers better equipped to teach students of all abilities in general physical education classes. Applicant for DAPE licensure must be a Health & Physical Education Teacher Education Major as DAPE licensure is an add-on license to the K-12 Health and Physical education teaching license. Students in related disciplines who foresee teaching students and individuals with disabilities may pursue the DAPE minor; however, pursuant to Minnesota teacher licensure requirements, only physical education majors can be granted the DAPE teaching licensure. Prospective teachers will be eligible for DAPE licensure in the State of Minnesota when all competencies have been met. See this link for more information http://ahn.mnsu.edu/hp/undergraduate/daepe.html.

All courses in the minor must be taken for grade with the exception of HP 493 (Internship in DAPE) which must be taken as P/NC. HP 493 may be taken concurrently with student teaching with prior approval. Cooperating teacher for HP 493 must be a licensed DAPE teacher.

Candidates must pass the Minnesota Teacher Licensure Exam (MTLE) in Special Education: Core Skills to receive DAPE license.

Admission to Minor is granted by the department concurrent with or following admission to physical education major. Minimum department admissions requirements are:
- a minimum of 32 earned semester credit hours
- a minimum cumulative GPA of 2.5 or above

Required for Minor
HP 411 Developmental Adapted Physical Education (3)
HP 413 Assessment in Adapted Physical Education (2)
HP 421 Teaching Sport to Individuals with Disabilities (2)
HP 422 Teaching Adapted Aquatics (2)
HP 445 Teaching Students with Cognitive & Emotional/Behavioral Disabilities (3)
HP 471 Consulting Techniques in Developmental Adapted Physical Education (3)
HP 493 Internship in Developmental Adapted Physical Education (2)

SPORT MEDICINE MINOR
Advisors: Patrick Sexton & Theresa Mackey

The Sports Medicine Minor at Minnesota State Mankato is intended for the non-athletic training major student who is interested in the broad field of Sports Medicine. It is intended for students in the following academic disciplines: exercise science, physical education, coaching, pre-physical therapy, psychology, pre-medicine, pre-chiropractic, nutrition, nursing, and pre-athletic training entry-level graduate education.

Biol 220 Human Anatomy (4)
Biol 330 Principles of Human Physiology (4)
HLTH 210 Advanced First Aid and CPR (3)
HP 291 Concepts of Fitness (2)
HP 340 Prevention and Care (2)
HP 415 Advanced Sports Medicine (2)

Note: This minor is not accredited by the Commission on Accreditation of Athletic Training Education (CAATE), and is not intended for Athletic Training Majors. The minor will not prepare students for the Athletic Training Board of Certification (BOC) examination.

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HP 102 (1) Individualized Exercise
This course provides small group personal training sessions (e.g., 1 to 4) ideal for sedentary students looking to begin a physical activity program in a non-competitive supportive environment. With the assistance of exercise science students enrolled in HP 486, participants will enhance their physical fitness and overall wellness.
Fall, Spring
GE-11

HP 103 (1) Fitness for Living
Concepts and development of lifelong healthy exercise and nutritional habits.
Fall, Spring
GE-11

HP 104 (1) Adult Fitness
This course is designed to provide specific information and strategies to allow adults to develop or maintain life-long healthy exercise habits that impact physical fitness in one or more of the following areas: cardiovascular and muscular endurance, muscular strength, flexibility, and body composition.
On-Demand
GE-11

HP 105 (1) Beginner and Advanced Beginner Swimming
Introduction to basic swimming skills; basic rescue and water safety skills and techniques; stroke instruction in front crawl, back crawl, elementary backstroke, breaststroke, and sidestroke.
Fall
GE-11

HP 107 (1) Orienteering
This course is designed to introduce the student to the basics of orienteering and land navigation. Through 15 weeks of classes and instruction, the student will be able to understand the basic principles of navigation. The class will be 50% classroom instruction and 50% outdoor activity.
On-Demand
GE-11

HP 114 (1) Billiards and Bowling
Theory and practice of billiards or bowling.
Fall, Spring
GE-11

HP 117 (1) Aerobic Conditioning
Theory and practice of aerobic conditioning.
Fall, Spring
GE-11

HP 130 (1) Self-Defense for Women
Includes street fighting techniques and personal safety tips.
Fall, Spring
GE-11

HP 138 (1) Beginning Horsemanship
Basic skills of horseback riding-western and English.
Fall, Spring
GE-11

HP 139 (1) Winter Survival
The winter survival (WS) seminar is designed to provide student with an introduction to winter survival techniques applicable to severe and varying weather conditions. Classroom lecture and outdoor hands-on training is utilized to accomplish course objectives. Winter survival is pass/fail.
On-Demand
GE-11

HP 143 (1) Aqua Exercise
Development of cardiovascular fitness, strength, flexibility, and endurance through a variety of exercise formats in the water. Swimming ability not a prerequisite.
Fall, Spring
GE-11

HP 145 (1) Aquatic Conditioning and Water Polo
Introduction to conditioning techniques for aquatic activities (swimming, triathlon, water polo, etc.). Development of cardiovascular fitness, strength, flexibility, and endurance. Individual/team skills and techniques of water polo.
Pre: Swim 500 yards without stopping.
On-Demand
GE-11

HP 146 (1) Intercollegiate Bowling
Pre: Bowling experience/averages.
On-Demand
GE-11

HP 147 (1) Intercollegiate Cross Country
Open for credit to those on the intercollegiate team.
Pre: Selection for team
Fall
GE-11

HP 148 (1) Intercollegiate Softball
Open for credit only for those students who make the Minnesota State Mankato team and who complete the requirements.
Pre: Selection for team
Spring
GE-11

HP 149 (1) Intercollegiate Volleyball
Open for credit only for those students who make the Minnesota State Mankato team and who complete the requirements.
Pre: Selection for team
Fall
GE-11

HP 150 (1) Intercollegiate Wrestling
Open for credit to those who make the wrestling team and complete the requirements.
Pre: Selection for team
Spring
GE-11

HP 152 (1) Intercollegiate Track and Field
Open for credit to those who make the team and complete the requirements.
Pre: Selection for team
Spring
GE-11

HP 153 (1) Intercollegiate Swimming
Open for credit only for those students who make the Minnesota State Mankato team and who complete the requirements.
Pre: Selection for team
Spring
GE-11

HP 154 (1) Intercollegiate Football
Open for credit only for those students who make the Minnesota State Mankato team and who complete the requirements.
Pre: Selection for team
Fall
GE-11

HP 155 (1) Intercollegiate Basketball
Must be on intercollegiate roster.
Pre: Selection for team
Spring
GE-11
HP 156 (1) Intercollegiate Baseball
Class for only students on the intercollegiate baseball team. Need permission to register.
Pre: Selection for team
Spring
GE-11

HP 157 (1) Intercollegiate Golf
Open for credit to those who make the team and complete the requirements.
Pre: Selection for team
Spring
GE-11

HP 158 (1) Intercollegiate Tennis
Open for credit to those who make the team and complete the requirements.
Pre: Selection for team
Spring
GE-11

HP 159 (1) Intercollegiate Hockey
This course is admission by permission only. The course is limited to male students who are members of the Minnesota State Mankato intercollegiate hockey team.
Pre: Selection for team
Spring
GE-11

HP 160 (2) Introduction to Human Performance Studies
Introduction to physical education and exercise science. Majors, minors, and concentrations in the field. To acquaint physical education majors and minors with an overview of the physical education and exercise science profession.
Fall, Spring

HP 161 (1) Intercollegiate Soccer
Participation in NCAA II soccer.
Pre: Selection for team
Fall
GE-11

HP 166 (1) Team Game Skills
Flag/Touch Football, Softball (fast and slow pitch), Soccer, Speedball, Ultimate, Volleyball, Basketball, Team handball.
Fall, Spring
GE-11

HP 174 (1) Individual Dual Activities
Participation and increase skill knowledge through activity in track and field or gymnastics.
Fall, Spring
GE-11

HP 175 (1) Fitness Activities
Participation and increase skill knowledge through activity in body building, physical conditioning, and aerobics.
Fall, Spring
GE-11

HP 176 (1) Lifetime Activities I
Acquaint student with the basic skills, strategy and rules of badminton, tennis, or racquetball.
Fall, Spring
GE-11

HP 177 (1) Lifetime Activities II
Basic skills and knowledge of terminology, rules, and strategy in archery or golf.
Fall, Spring
GE-11

HP 178 (1) Social, Folk and Square Dance Techniques
Techniques of traditional folk dance, square dance and fundamentals of a variety of social dances.
Fall, Spring
GE-11

HP 179 (1) Winter Activities
Skiing, cross-country skiing, ice skating, or snowboarding.
Spring
GE-11

HP 180 (1) Introduction to Handball
Acquaint student with basic skills, and rules of handball.
Fall, Spring
GE-11

HP 181 (1) Advanced Handball
Acquaint student with advanced skills, strategies, and rules of handball.
Fall, Spring
GE-11

HP 182 (1) Aquatic Skills
Overview of aquatic skills and activities. Basic techniques and practical experience in teaching aquatic skills and activities.
Pre: Human Performance major or Aquatic emphasis. Ability to swim front crawl, back crawl, elementary backstroke, breaststroke, sidestroke. Developing teaching skills and curriculum.
Fall, Spring
GE-11

HP 190 (1) Sport Activities
Variable content based on demand.
Pre: Varies depending on activity
Fall, Spring
GE-11

HP 201 (3) Introduction to Teaching Physical Education
Introduction to physical education for teaching majors. An overview of history, physical education teaching profession, and opportunities and challenges in teaching.
Fall

HP 202 (1) Introduction to Teaching PE and Health
Introduction to physical education and health teaching majors. An overview of history, physical education and health teaching profession, and opportunities and challenges in teaching.
Spring

HP 203 (2) Fundamentals of Indoor and Outdoor Team Sports
This class is intended for students in Physical Education to learn the fundamentals of teaching indoor and outdoor team sports. Students will use current teaching models to learn and evaluate age appropriate teaching progressions and assessment techniques. Students will become proficient in both performing and teaching specific skills related to team sport (flag football, basketball, volleyball, soccer, ultimate Frisbee, team handball).
Fall
On-Demand

HP 204 (2) Fundamentals of Individual and Dual Sports
This class is intended for students in Physical Education to learn the fundamentals of teaching individual and dual sports. Students will use current teaching models to learn and evaluate age appropriate teaching progressions and assessment techniques. Students will become proficient in performance and analysis of fundamental movements and skills in individual and dual sports (bowling, golf, tennis, pickleball, badminton) and leisure activities (disc golf, bocce ball). On-Demand

HP 205 (2) Fundamentals of Rhythm and Dance
This class is intended for students in Physical Education to learn the fundamentals of teaching rhythm and dance. Students will use current teaching models to learn and evaluate age appropriate teaching progressions and assessment techniques. Students will become proficient in performance and analysis of fundamental movements and skills in rhythmic activities and dance (folf, square, line, and social). On-Demand

HP 210 (2) Global Aspects of Sport
On-Demand

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HP 241 (1) Sailing
Students must furnish Coast Guard approved wearable life preserver. Beginning and intermediate sailing techniques. Sailboat racing.
Pre: Swimming ability
On-Demand
GE-11

HP 242 (1) Canoeing
Paddling skills and safety/rescue techniques. Beginning white water skills. Students must provide their own personal flotation devices.
Pre: Swimming ability
On-Demand
GE-11

HP 245 (1) Intermediate Swimming
Pre: Front crawl, back crawl, elementary backstroke, sidestroke, breaststroke.
Spring
GE-11

HP 248 (1) Stroke Analysis
Pre: Ability to swim strokes.
On-Demand
GE-11

HP 250 (2) Lifeguard Training
Explanations, demonstrations, practice, and review of skills required of lifeguards. Red Cross certification.
Pre: Swim 500 yards. Front crawl, breaststroke, elementary backstroke, sidestroke.
On-Demand
GE-11

HP 252 (2) Officiating Theory
The course is designed to give an overview of approximately five sports. Emphasis is placed on the philosophy behind sport officiating. Discussion involves how to get started, organization helpful to officials, learning materials, stipends to be earned, types of equipment and cost.
On-Demand
GE-11

HP 255 (3) Development Movement
Designed to prepare teacher candidates to recognize, understand, apply, and analyze the skill theme approach to elementary children’s physical education curriculum. Emphasis will be based on movement concepts, skill themes, rhythms and dance, and generic levels of skill proficiency.
Spring

HP 257 (2) Water Safety Instructor (WSI)
American Red Cross requirements for Water Safety Instructor (WSI) certification. Practical experiences included.
Pre: Swim 500 yards. Front crawl, back crawl, elementary backstroke, breaststroke, sidestroke.
On-Demand
GE-11

HP 265 (2) Orientation to Occupational and Physical Therapy
Academic direction for admission into a school of occupational or physical therapy. Information and experiences regarding roles and responsibilities of occupational and physical therapists.
Fall, Spring

HP 266 (2) Teaching Dance in Physical Education
Methods and materials for teaching creative dance/movement and dance technique to children K-12. Includes practicum experiences with varied age groups.
On-Demand

HP 290 (3) Psycho-Social Aspects of Sport
Examines sport from a social-psychological perspective. To identify and discuss ways in which societal values affect the character of sport and the people involved.
Pre: SOC 101
Fall, Spring

HP 291 (2) Concepts of Fitness
Adult fitness, from theory to practice.
Fall, Spring

HP 292 (1) Swimming Theory
Methods, procedures, and philosophy of coaching competitive swimming.
Pre: Competitive swimming experience.
On-Demand

HP 293 (1) Track & Field Theory
Methods and procedures used in coaching.

HP 294 (1) Baseball Theory
Methods and procedures used in coaching baseball.

HP 295 (1) Basketball Theory
Methods and procedures used in coaching.

HP 296 (1) Cross Country Theory
Methods and procedures used in coaching.

HP 297 (1) Golf Coaching Theory
Methods and procedures used in coaching.

HP 298 (1) Hockey Coaching Theory
The course is designed for those interested in coaching hockey at the youth and high school level.

HP 299 (1) Coaching Theory
Methods and procedures used in coaching.

HP 300 (1) Softball Theory
Methods and procedures used in coaching.

HP 301 (1) Golf Coaching Theory
Methods and procedures used in coaching.

HP 302 (1) Soccer Coaching Theory
Methods and procedures used in coaching.

HP 303 (1) Tennis Coaching Theory
Methods and procedures used in coaching.

HP 304 (1) Tennis Theory
Methods and procedures used in coaching.

HP 305 (1) Golf Coaching Theory
Methods and procedures used in coaching.

HP 306 (1) Soccer Coaching Theory
Methods and procedures used in coaching.

HP 307 (1) Tennis Coaching Theory
Methods and procedures used in coaching.

HP 308 (1) Soccer Coaching Theory
Methods and procedures used in coaching.

HP 309 (1) Baseball Coaching Theory
Methods and procedures used in coaching.

HP 310 (1) Basketball Coaching Theory
Methods and procedures used in coaching.

HP 311 (1) Cross Country Coaching Theory
Methods and procedures used in coaching.

HP 312 (1) Golf Coaching Theory
Methods and procedures used in coaching.

HP 313 (1) Soccer Coaching Theory
Methods and procedures used in coaching.

HP 314 (1) Tennis Coaching Theory
Methods and procedures used in coaching.

HP 315 (1) Swimming Coaching Theory
Methods and procedures used in coaching.

HP 316 (1) Golf Coaching Theory
Methods and procedures used in coaching.

HP 317 (1) Soccer Coaching Theory
Methods and procedures used in coaching.

HP 318 (1) Tennis Coaching Theory
Methods and procedures used in coaching.

HP 319 (1) Swimming Coaching Theory
Methods and procedures used in coaching.

HP 320 (3) Foundations of Motor Learning
Analysis variables which affect the learning, performance, and retention of motor skills.
Pre: PSYC 101
Fall, Spring
HP 323 (2) Elementary Physical Education Methods
Methods and materials for teaching physical education in the elementary school.
Fall, Spring

HP 325 (3) Sport Ethics and Professional Development
This course will enable students to gain a deeper understanding of the moral reasoning processes of sport management professionals. Students will develop the knowledge, skills, and abilities to apply moral reasoning in dealing with ethical dilemmas in sport management.
Fall

HP 340 (2) Prevention and Care
Basic recognition, prevention, and care of injuries/illnesses suffered by athletes and other physically active individuals. Designed for coaching, physical education, and sports medicine minor students.
Pre: BIOL 220, HLTH 210
Fall, Spring

HP 341 (3) Athletic Training Techniques
Recognition, prevention, and care of injuries/illnesses incurred by athletes and other physically active individuals. Also, the proper selection, care, fitting, and maintenance of protective equipment and braces are emphasized. Designed for athletic training students.
Pre: Consent and BIOL 220, HP 140
Spring

HP 342 (3) Evaluation Techniques I
Principles of the etiology, pathology, assessment, recognition, and management of lower body injuries/illnesses suffered by athletes and physically active individuals. Designed for athletic training students.
Pre: Consent and HP 341
Fall

HP 343 (3) Evaluation Techniques II
Principles of the etiology, pathology, assessment, recognition, and management of upper body injuries/illnesses suffered by athletes and physically active individuals. Designed for athletic training students.
Pre: Consent, HP 341, HP 342
Spring

HP 344 (2) Aquatic Organization and Administration
Development of skills necessary to organize and administer aquatic programs (seasonal and yearly).
Pre: Lifeguard Training/WSI or consent.
On-Demand

HP 346 (2) Evaluation Techniques I Clinical
The study and application of clinical assessment techniques used to evaluate lower body injuries incurred by physically active populations. The required clinical experience component will provide the student with the opportunity to apply these skills in the clinical environment.
Pre: HP 341 and HP 342 concurrent
Fall

HP 347 (2) Evaluation Techniques II Clinical
The study and application of clinical assessment techniques used to evaluate upper body injuries incurred by physically active populations. The required clinical experience component will provide the student with the opportunity to apply these skills in the clinical environment.
Pre: HP 341, HP 342, and HP 343 concurrent
Spring

HP 348 (3) Structural Kinesiology and Biomechanics
A study of the structural and biomechanical functions of the muscular system during physical activity, sport, and exercise.
Pre: BIOL 220
Fall, Spring

HP 354 (1) Coaches Physiology
The purpose of this course is to acquaint the student with the basic information regarding the physiological response of the human body to acute and chronic exercise. All material presented will be approached from a practical perspective with an emphasis on application for coaches.
On-Demand

HP 356 (3) Methods of Elementary Physical Education
Designed to prepare teacher candidates to recognize, understand, apply, and analyze the skill theme approach to elementary children’s physical education curriculum. The emphasis will be based on movement concepts, skill themes, rhythms and dance, and generic levels of skill proficiency.
Spring

HP 360 (3) Foundations of Sport Management
Physiological base for testing process, interpretation of results and the conditioning process as used with the athlete. Methodologies of nutritional assessment and the integration of sound nutritional principles in an athletic environment.
Fall

HP 371 (2) Scientific Principles of Sport
This course is designed to acquaint the coaching licensure student with the basic principles of structural kinesiology and biomechanics.
Pre: BIOL 220, PHYS 101
On-Demand

HP 372 (3) Exercise Science for Coaches
The purpose of this course is to acquaint the student with an understanding of basic scientific principles essential to working successfully with athletes as a coach.
Summer

HP 386 (4) Methods of Middle & Secondary Physical Education
Designed for teacher candidates to analyze, apply, and evaluate developmentally appropriate content development skills, develop lesson plans, and peer teach. Teacher candidates will apply the standards of effective practice in teaching middle and secondary level students in physical education.
Pre: HP 201, HP 255, HP 266, all Performance Courses.
Spring

HP 387 (3) Methods of Secondary Physical Education
This course is designed for teacher candidates to apply, analyze, and evaluate developmentally appropriate content skills, develop lesson plans, and peer teach. Teacher candidates will apply the standards of effective practice in teaching K-12 level students in physical education.
Pre: KSP 330
Coreq: KSP 330
Fall

HP 392 (3) Group Exercise Instruction
The student will gain knowledge and skills that will allow them to take and pass a reputable group exercise instruction certification, develop/instruct a wide variety of group exercise formats and monitor and modify the exercise of participants in group exercise.
Variable

HP 398 (0) CPT: Co-Operative Experience
Curricular Practical Training: Co-Operative Experience is a zero-credit full-time practical training experience for one summer and on adjacent fall or spring term. Special rules apply to preserve full-time student status. Please contact an advisor in your program for complete information.
Pre: HP 140 or HP141 or HP 160 or HP 201. At least 60 credits earned; in good standing; instructor permission; co-op contract; Prerequisites may vary by program:
HP 140 (AT), HP 141 (SM), HP160 (ES), HP 201 (PE/HLTH).
Fall, Spring, Summer

HP 403 (3) Research Methods & Statistics in Exercise Science
Provides an introduction to measurement and evaluation commonly used in physical education and exercise science. This encompasses the administration of skills and performance tests, interpretation of results, basic statistical analysis, and grading/evaluating performance.
Pre: HP 290, HP 414
Fall, Spring

HP 403W (3) Research Methods & Statistics in Exercise Science
Provides an introduction to measurement and evaluation commonly used in physical education and exercise science. This encompasses the administration of skills and performance tests, interpretation of results, basic statistical analysis, and grading/evaluating performance.
Pre: HP 290, HP 414
WI
Fall, Spring
Pre: HP 201, HP 255, HP 266, HP 386, All HP Performance

HP 411 (3) Developmental Adapted Physical Education
Legal and theoretical bases for teaching physical education to students with disabilities. First course in DAPE sequence.
Fall, Spring

HP 412 (2) Assessment in Adapted Physical Education
Evaluation of motor skills and fitness of students with disabilities.
Spring

HP 413 (2) Lifespan Motor Development
Study of lifespan motor development from prenatal through adulthood, including information on delayed development and the normal pattern of skill acquisition.
Fall

HP 414 (3) Physiology of Exercise
Introductory study of the effects of both acute and chronic exercise on structure and function of the human body across the life span.
Pre: BIOL 330, BIOL 230 or BIOL 310 may be substituted for BIOL 330.
Fall, Spring

HP 415 (2) Advanced Sports Medicine
This course is designed for individuals interested in advanced study in the field of sports medicine. The course will provide advanced study or orthopedic assessment techniques, application of therapeutic exercise and modalities, and rehabilitation techniques.
Pre: BIOL 220, HLTH 210, HP 340
Spring, Summer

HP 417 (3) Principles of Wellness Coaching
This course contains content associated with achieving entry-level certifications for wellness coaching. Health behavior change strategies are emphasized within the context of the health coaching theory, coaching relationship skills, well-being assessment, and goal setting.
Fall, Spring

HP 418 (3) Intercultural Competence for Allied Health Professionals
Studying abroad is a transformative experience that has the power to challenge our thinking and our perspective on the world. This experiential course will help you become a global citizen, develop intercultural competence, and enhance your abilities to work in health-related fields with diverse clients and patients. Specifically, we will be participating in intercultural activities before the study abroad and several cultural immersion activities while abroad (e.g., participating in a traditional cultural ceremony).
Spring

HP 419 (2) Teaching Dance to Individuals with Exceptional Needs
Adaptation of dance materials to facilitate learning of individuals with special needs through simulated and hands-on teaching experiences.
On-Demand

HP 421 (2) Teaching Sport to Individuals with Disabilities
Contemporary sport opportunities for individuals with disabilities, with application to teaching and transition planning.
Pre: HP 411 or consent
Fall

HP 422 (2) Teaching Adapted Aquatics
Theory and practical experience in teaching swimming and other aquatic skills to individuals with disabilities.
Pre: HP 182 or HP 257
Spring

HP 424 (4) Methods of Elementary Physical Education
Designed for teacher candidates to analyze, apply, and evaluate developmentally appropriate content development skills, and develop lesson plans to teach elementary physical education.
Pre: HP 201, HP 255, HP 266, HP 386, All HP Performance
Fall

HP 425 (2) Elementary Teaching Field Experience
A field experience for teacher candidates to develop lesson plans and teach physical education to elementary students on-site prior to student teaching.
Fall, Spring

HP 432 (2) Elementary Teaching Field Experience
A field experience for teacher candidates to develop lesson plans and teach physical education to elementary students on-site prior to student teaching.
Fall, Spring

HP 433 (3) Planning Sport Facilities
This course provides students with information on the planning, development, and administration of sport facilities (i.e., physical education, athletics, recreation, fitness/wellness centers, etc.).
Spring, Summer

HP 437 (3) Sport Media, Sponsorship & Sales
An in-depth study of sport management theories, policies, objectives, and strategies applied to sport marketing through the functions and areas of sport sponsorships, sales and media.
Fall, Summer

HP 438 (3) Nutrition for Physical Activity and Sport
Provides in-depth exploration of the dietary needs of physically active individuals across the lifespan. Its laboratory component will focus on performance and interpretation of assessments commonly used to determine dietary and physiological status.
Fall

HP 440 (3) Medical Aspects of Athletic Training
Advanced study of general medical concepts related to injuries/illnesses incurred by athletes and physically active individuals. The course also includes concepts of medical pathology and pharmacology. Designed for athletic training students.
Pre: Consent and HP 341, HP 348
Fall

HP 441 (2) Organize & Administer
Planning, organizing, controlling, resource allocation, communication, marketing, public relations, and legal aspects of physical education and sport.
Fall, Spring

HP 442 (3) Therapeutic Modalities in Athletic Training
Theory and application of the use of therapeutic modalities in the treatment of injury/illnesses suffered by athletes and physically active individuals. This also includes the principles of tissue healing, pain and pain control. Designed for athletic training students.
Pre: Consent and HP 341, HP 342
Fall

HP 444 (3) Rehabilitation Techniques
Principles of rehabilitation and reconditioning of injuries/illnesses incurred by athletes and physically active individuals. This course also includes strategies to safely and expeditiously return patients/clients to functional activity.
Pre: HP 342 and concurrent HP 343
Spring

HP 445 (3) Teaching Students with Cognitive & Emotional/Behavioral Disabilities
Theory, strategies and best practices for teaching physical education to students with cognitive disabilities (including mental retardation, autism, and multiple disabilities accompanying mental retardation) and emotional/behavioral disorders.
Spring

HP 477 (3) Behavior Change Foundations and Strategies
Behavior Change Foundations and Strategies (3 semester credits) is a course that focuses upon the complexity of health behavior change and the skills necessary for a health promotion professional to assess, plan, and evaluate behavior change interventions for individuals and communities. Health behavior change theories and strategies will be discussed. Topics covered in class will include: behavior modification, goal setting, self-management, coping skills, and social support. Emphasis will also be given to the impact of policy and environmental influences on behavior.
Pre: HP 290, HP 414
Fall, Spring

HP 448 (3) Applied Sport Business
This course is designed to provide a rigorous, comprehensive hands-on learning experience for students majoring in Sport Management. This more closely supervised field experience requires a rigorous time and energy commitment from students.
Variable
HP 451 (3) Principles of Coaching
Basic understanding of the theoretical and practical applications of the sport science areas of physical education related to coaching. Current issues and topics addressing the principles and problems of the prospective interscholastic coach. Fall, Summer

HP 456 (2) Athletic Testing and Conditioning
Field testing, exercise instruction, and the periodization technique of exercise prescription for athletes and physically active individuals. Includes scientific strategies for enhancing strength, power, and endurance performance along with computer-aided program design. Pre: HP 414 Fall, Spring

HP 459 (3) Financial Aspects of Sport
This course is designed to provide knowledge and understanding of the principles of economics, budgeting, and finance as it applies to the sport business industry. Pre: ACCT 200 or consent of instructor

HP 462 (3) Sports Administration
This course provides student with fundamental theoretical and practical knowledge in management principles and techniques. Philosophy, leadership, communications, public relations, marketing, ethical and legal issues, finances and facilities are also studied. Fall, Spring

HP 463 (3) Seminar in Sport Management
This course is designed to provide students with opportunities to apply the knowledge and skills obtained from sport management courses in order to solve problems that a sport manager is likely to encounter.

HP 464 (3) Analysis of Sport Data
The introduction of basic principles and procedures of measurement skills used by sport manager in applying and analyzing sport-related data such as sport marketing, operational, or financial data in a sport organizational setting.

HP 465 (3) Legal Aspects of Physical Education and Sport
To provide legal and safety aspects in physical activity. Legal liability, civil rights, and contract law are emphasized.

HP 466 (3) Graded Exercise Testing and Exercise Prescription
An introduction to basic graded exercise tests and exercise prescription commonly used in clinical as well as health/wellness appraisal settings.

HP 466W (3) Graded Exercise Testing and Exercise Prescription
An introduction to basic graded exercise tests and exercise prescription commonly used in clinical as well as health/wellness appraisal settings.

HP 467 (3) Worksite Wellness Program Development
Reviews the contextual issues and health policies in the workplace. Efficacy of best practices in worksite wellness strategies, employee engagement, program design and implementation, and program assessment are explored. Pre: HP 414 Spring

HP 468 (3) Sport Marketing
The study of marketing theory, research, strategies, and techniques in the areas of market segmentation, sport products, licensing and merchandising, market research, pricing, promotions, sales, public relations, electronic media, sponsor- ship and consumer behavior as it applies to the marketing sport or marketing products through sport.

HP 469 (3) Event Management in Sport
Techniques/principles of planning, funding and managing sport events. Collegiate championships, nonprofit events, benefits, professional events. Fall

HP 470 (3) Psychology of Coaching
To introduce interested students, professionals, and coaching licensure candidates to the psychological literature and latest techniques associated with coaching in an athletic setting. Pre: PSYC 101 or equivalent Fall, Spring

HP 471 (3) Consulting Techniques in Dev. Adapted Physical Education
Study of techniques of consulting in D/APE with the spectrum of individuals involved in the IEP process, including but not limited to: students with disabilities, general physical education teachers, other school professionals and support service personnel, families/parents, peer tutors, and community agencies to enhance the learning of students with disabilities both within and outside the classroom setting. Pre: HP 411, HP 412, HP 445

HP 472 (3) Psychology of Sport and Athletic Injury
This course provides understanding and application of the psychology of sport and injury. Topics include psychological concerns, psycho-social antecedents of injury, psychological skills to implement with patients who are injured as a result of participation in athletics and physical activity. Variable

HP 475 (3) International Sport Management
The purposes of this course is to expand students’ awareness of global sport management principles and obtain first-hand experience in international sport through studying abroad. The course will address ethics, marketing, event management, finance, and challenges/issues in international sport management.

HP 480 (3) Senior Seminar
Principles of organization and administration of athletic training service programs. Includes principles of research and evidence-based practice in athletic training. Pre: Consent, HP 343, HP 422 Spring

HP 481 (1-4) Practicum in Athletic Training
Practicum in athletic training is designed to provide the athletic training student with supervised clinical experience outside of the traditional athletic training setting, in affiliated high school and clinical settings. Pre: Consent Fall, Spring

HP 482 (1) Coaching Practicum
Supervised experience in a public school varsity/junior varsity sport setting. Pre: HP 340, HP372, HP 451 Fall, Spring

HP 483 (3) Cardiac Rehabilitation
A course designed to provide experience for persons seeking leadership roles in institutions housing programs of rehabilitative cardiovascular exercise and risk factor intervention. Pre: HP 414 and HP 467 or equivalent Fall, Spring

HP 484 (3) Clinical Techniques in Athletic Training I
The study and application of clinical techniques utilized in the care of patients suffering from injuries incurred through physically activity. The required clinical experience component will provide the student with the opportunity to apply these skills in the clinical environment. Pre: HP 343, HP 442, HP 444, concurrent HP 456 Fall
HP 485 (2) Clinical Techniques in Athletic Training II
The study and application of clinical techniques utilized in the care of patients suffering from injuries incurred through physically activity. The required clinical experience component will provide the student with the opportunity to apply these skills in the clinical environment.
Pre: HP 343, HP 442, HP 444, and HP 484
Spring

HP 486 (3) Small Group Personal Training
This course will prepare exercise science students to lead personal training sessions in a professional environment. Each student will serve as a personal trainer for HP 102 students applying skills from HP 456 and HP 466. Students will further their personal training techniques using a client-centered approach.
Pre: HILTH 210, HP 456, HP 466
Fall, Spring

HP 490 (1-4) Workshop
Content is variable and based on special topic.
On-Demand

HP 491 (1-4) In-Service
Broad spectrum of foci available. Designed in consultation with requesting group.
On-Demand

HP 492 (1-10) Internship: Corporate and Community Fitness
This internship is designed to provide the student with practical experience in the area of corporate and community fitness.
Pre: HP 414, HP 466
Fall, Spring

HP 493 (2) Internship in Developmental Adapted Physical Education
Supervised hands-on experience teaching physical education to students with disabilities.
Pre: HP 411 and HP 445
Fall, Spring

HP 496 (1-10) Internship
Designed as an intense practical experience in a selected area.
Pre: HP 414, HP 466
Fall, Spring

HP 499 (1-5) Individual Study
Topics for reading and/or research in human performance to be arranged between student and faculty. This must be done prior to registration.
Fall, Spring

Information Systems

Information Systems
College of Science, Engineering & Technology
Department of Computer Information Science
273 Wissink Hall • 507-389-1412
Website: cset.mnsu.edu/cis

Chair: Leon Tietz
Faculty: Cyrus Azarbod, Lee Cornell, Allan Hart, Sarah Kruse, Guarianex Salvia, Mahbubur Syed, Christophe Veltsos, Michael Wells

The Bachelor of Science in Information Systems program provides students with in-depth knowledge of Information Technology concepts and applications, and prepares them to create innovative solutions for real-world problems. Students gain the ability to integrate hardware, software, and management skills to solve problems in a variety of IT areas.

The program’s mission is to ensure that each graduate is exceptionally well qualified to undertake a successful information systems career in industry, business, education, or government. In support of this mission, the program is designed so that:

- Each student will gain a sound foundation in computing basics, analysis and design, programming, testing, software development, security, database, and human-computer interaction.
- Each student will learn the theory and practice of information technology and develop skills to apply this knowledge to analyze and solve information system problems.
- Each student will develop analytical, critical thinking, and interpersonal skills applicable to real-world problem solving.
- Each student will acquire basic business concepts to assist them in career paths where they are interfacing with and developing solutions for business professionals.
- Each student will develop effective oral and written communication skills.
- Each student will appreciate the social and ethical issues in information systems.

POLICIES/INFORMATION

Admission to Major is granted by the department. Admission to the Major is required before the student is permitted to take 300- and 400-level courses. Requirements are:

- A minimum of 32 earned semester credits
- Completion of MATH 181 or MATH 121 with a grade of “C” or better
- Completion of ENG 101 with a grade of “C” or better
- Completion of IT 210 and IT 214 with a grade of “C” or better in each, and a combined GPA of 2.5 in these courses (or their equivalents).

GPA Policy. The completion of any major or minor in the Department of Computer Information Science requires both:
- a GPA of 2.5 or higher for all departmental courses, or their substitutions, used to complete the major or minor, and
- a GPA of 2.5 or higher for all courses, or their substitutions, used to complete the major or minor. This includes all departmental courses, supporting courses, and General Education courses required for the major or minor.

It is recommended that students who cannot maintain a GPA of 3.0 in required 100 and 200 level course see their advisor for a program review.

Grade Policy. All coursework used to complete a departmental major or minor, including required courses, required supporting courses, and required General Education courses, must be taken for a letter grade except for courses offered only as P/N.

No course completed with a grade of “D” can be used to complete a departmental major or minor program, or to meet a departmental prerequisite.

Registration Hold Policy. The department will place a registration hold on any student who earns a “D” or “F” in any of its courses. The department will also place such a hold on any student who drops any of its courses after the first two weeks of the semester. A student with a registration hold cannot register for courses until the hold is released, which requires filling out an appeal form and taking it to the student’s advisor for discussion. Appeal forms are available from the departmental office.

Dual Major Policy. Students can earn at most one undergraduate major from this department.

Incomplete Policy. The department gives incomplete grades for only two conditions. The first condition is illness, which requires a doctor’s written recommendation. The second condition arises when a death in the student’s family has caused the student to be away from the campus for an extended period. The student must have a satisfactory grade (“C” or better) in the course at the time of the onset of the condition.

Internship Policy. An internship is required for all majors.

Residency Policy. Students must earn at least 50 percent of the credits required for a major in Information Systems at Minnesota State Mankato.
Advising Policy. Every semester, before registering for courses, each student majoring in Information Systems must meet with his/her advisor to obtain permission for registration. This meeting ensures that all students are making satisfactory progress toward their degrees.

Portfolio Policy. Each student majoring in Information Systems is required to keep a portfolio of work done in all major courses, and to make this portfolio available to faculty for review. Keeping a portfolio gives the student ownership over his or her education and helps to personalize the educational experience. The portfolio also provides a valuable showcase of work accomplished when interviewing prospective employers or applying to graduate school.

INFORMATION SYSTEMS CONTINUED

INTEGRATED ENGINEERING

Integrated Engineering
Department of Integrated Engineering
College of Science, Engineering & Technology
131 Trafton Science Center N • 507-389-2744
Website: cse.mnsu.edu/ie and www.ire.mnsu.edu
Chair: Rebecca Bates

Faculty: Rebecca Bates, Leslie Flemming, Cheol-Hong Min, Dean Kelley, Elizabeth Pluskwik, Robert Sleezer, Jacob Swanson

Affiliated Iron Range Faculty: Ronald Ulseth (Co-Director), Andy Lillesve

Accreditation. Iron Range Engineering is accredited by the Engineering Accreditation Commission of ABET, http://www.abet.org. Twin Cities Engineering will apply for accreditation after the first students graduate from the program.

The Integrated Engineering major is offered through a novel engineering education program, unique to Minnesota State Mankato. Iron Range Engineering is offered in the Iron Range region of northeast Minnesota (Virginia, MN) and Twin Cities Engineering is offered in the Twin Cities metro area (Bloomington, MN).

Three credits of IT 497 are required for the major. Additional credits will be used to satisfy overall degree requirements.

Major Restricted Electives
Students must complete the requirements for ONE of the two clusters

Cluster 1: Integrated Business Experience (IBE) (15 credits)
IBE Curriculum (choose 12 credits)
Three credits of IT 499 must be taken concurrently with the IBE practicum to count towards this cluster. The four IBE courses are taken together in a single semester. Work with the College of Business Advising Center to register for the IBE curriculum.

FINA 362 Business Finance (3)
IT 499 Individual Study (1-4)
MGMT 330 Principles of Management (3)
MGMT 473 Enterprise Resource Planning (ERP) (3)

Cluster 2: General Business (15 credits)
Business Core (choose 9 credits)

FINA 362 Business Finance (3)
MGMT 330 Principles of Management (3)
MGMT 473 Enterprise Resource Planning (ERP) (3)

Cluster 2 Electives (choose 6 credits)

ACCT 210 Managerial Accounting (3)
BLAW 371 Computer and Technology Law (3)
MGMT 346 Production & Operations Management (3)
MGMT 473 Enterprise Resource Planning (ERP) (3)

Or any upper-division course(s) not already used in the Major Common Core or in the selected cluster. IT 300-IT 499

Required Minor: None.

For IT course descriptions, please see Computer Information Technology.
INTEGRATED ENGINEERING CONTINUED

- Designing, implementing and integrating thermal, electrical, mechanical and computer-controlled systems, components, and processes that will serve the region, the nation, and the world;
- Continuing their education through technical or professional graduate programs, professional licensure, or certifications, and the wide variety of other types of life-long learning;
- Creating, developing, leading, and managing in a wide range of enterprises that result in sustainable and enhanced economic regional development through their disciplinary expertise;
- Demonstrating actions such as community service, professional ethics, professional responsibility and mentoring future engineers.

INTEGRATED ENGINEERING BSE
Degree completion = 128 credits

Required General Education
Students who complete the Minnesota Transfer Curriculum will satisfy the Composition (ENG 101) and Communications requirements.
ENG 101 Composition (4)
MATH 121 Calculus I (4)
PHYS 221 General Physics I (4)
Economic Course (choose 3 credits)
ECON 201 Principles of Macroeconomics (3)
ECON 202 Principles of Microeconomics (3)
Communications (choose 3-4 credit)
CMST 102 Public Speaking (3)
ENG 271W Technical Communication (4)
Chemistry (choose 3-5 credits)
CHEM 191 Chemistry Applications (3)
CHEM 201 General Chemistry I (5)

Pre-requisites to the Major
An additional 3 credits of engineering design and programming are required. Circuit Analysis should be accompanied by a lab. Students need a total of 32 Math and Science credits comprised of courses from General Education and prerequisites to the major.
EE 230 Circuit Analysis I (3)
EE 240 Evaluation of Circuits (1)
ENGR 110 Introduction to Project-based Engineering (3)
MATH 122 Calculus II (4)
MATH 223 Calculus III (4)
MATH 321 Ordinary Differential Equations (4)
ME 212 Statics (3)
ME 214 Dynamics (3)
PHYS 222 General Physics II (3)
PHYS 232 General Physics II Laboratory (1)

CHOOSE 1 CLUSTER
Physics
PHYS 223 General Physics III (3)
PHYS 233 General Physics III Laboratory (1)
Chemistry
CHEM 202 General Chemistry II (5)
Biology (choose 4 credits)
BIOL 105 General Biology I (4)
BIOL 106 General Biology II (4)

Major Common Core
All students must complete 6 credits of ENGR 370, 6 credits of ENGR 371, 2 credits of ENGR 320, 2 credits of ENGR 420 and 4 credits of ENGR 492.
ENGR 301 Design I (3)
ENGR 302 Design II (3)
ENGR 311 Professionalism I (3)
ENGR 312 Professionalism II (3)
ENGR 320 Engineering Core Competencies (1-2)
ENGR 370 Mechanical Core Competencies (1-8)
ENGR 371 Electrical Core Competencies (1-6)
ENGR 401 Capstone Design I (3)
ENGR 402 Capstone Design II (3)
ENGR 411 Professionalism III (3)
ENGR 412 Professionalism IV (3
ENGR 420 Advanced Engineering Core Competencies (1-2)
ENGR 492 Seminar (1)

Major Restricted Electives
Choose 6-7 credits of approved Arts and Humanities courses and choose 6-7 credits of Social Science courses for a total of 13 credits. The Depth Requirement can be fulfilled by a sequence of courses in the same department (such as HIST 180 and HIST 181 or PHIL 101 and PHIL 321W). A list of approved courses can be found at the program website. Students should also meet the University’s Diverse Cultures requirement. Students who complete the Minnesota Transfer Curriculum will satisfy the Major Restricted Electives requirement.

POLICIES/INFORMATION

MINIMUM INTEGRATED ENGINEERING PROGRAM ENTRY REQUIREMENTS

Entry Requirements. A minimum of 49 semester credit hours including the following courses and credits must be completed before the student enters the engineering curriculum in the Fall of the junior year in full standing.

- Calculus and Differential Equations (16 credits)
- General Physics (calculus-based) (8 credits)
- Additional math and science courses, including chemistry, (8 credits)
- Intro engineering courses including programming or introduction to engineering, statics, dynamics and lab-based electric circuits (13 credits)
- English Composition (4 credits)

All courses and credits shown above must be completed before full enrollment in 300-level engineering courses, unless special permission is granted by the department chair. All of the above courses must be taken for “grade”. It is not acceptable for the student to take any of these courses on a pass/no credit basis. A grade of “C-“ or better must be achieved in each course. Students may be admitted provisionally while these requirements are being satisfied.

Application to Program. To be considered for admission, the student must have a cumulative GPA of 2.5 for all science, math, and engineering courses. Admission to the Integrated Engineering Program is selective and subject to the approval of the Integrated Engineering program faculty. Admission to the Integrated Engineering Program also requires the completion of the application found at the following website: http://cset.mnsu.edu/ie/apply.html.

Each application will be evaluated individually and the decision of Integrated Engineering program faculty will be final. Failure to submit an application by the stated deadline could result in the student being denied admission to the program. If a student is denied admission to the Integrated Engineering Program, he/she can reapply to the program for admission in subsequent years.

A. Minnesota State Mankato students.
This application form (http://cset.mnsu.edu/ie/apply.html) is submitted to the Integrated Engineering Program along with a copy of the student’s Minnesota State Mankato transcript and any transfer evaluations. Pre-engineering students at Minnesota State Mankato are not guaranteed admission to the program.

B. Transfer Students.
Transfer students must submit an application to Minnesota State Mankato and follow all transfer policies. Students may be able to complete the required pre-engineering curriculum at another college or university and have these courses and credits transferred to Minnesota State Mankato, when applying for admission to the Integrated Engineering Program.

GPA Policy. GPA Policy: Students graduating with a B.S. in Engineering degree must have:
1. A cumulative GPA of 2.5 or higher.
2. Grades of 1.67 (“C-“) or better for courses taken at Minnesota State Mankato to be accepted.

P/N Grading Policy. P/N credit will not be applied to any course used to meet the degree requirements.

All students must follow all Minnesota State Mankato policies.
Students choosing not to complete a focus area must complete 0-2 credits of ENGR 355 and 14-16 credits of ENGR 455, ENGR 470 or ENGR 471. The engineering field of these elective credits is unrestricted.

ENGR 355  Elective Technical Competency (1-2)
ENGR 455  Advanced Technical Competency (1-8)
ENGR 470  Mechanical Advanced Competency (1-2)
ENGR 471  Electrical Advanced Competency (1-2)

**Mechanical Focus** (choose 16 credits)

Students choosing a mechanical focus must complete 2 credits of ENGR 470, 0-2 credits of ENGR 355 and 12-14 credits of ENGR 455 or ENGR 471. At least 12 credits of ENGR 355 and ENGR 455 must be in the field of mechanical engineering. At least two of the four engineering projects must include design of mechanical systems.

ENGR 355  Elective Technical Competency (1-2)
ENGR 455  Advanced Technical Competency (1-8)
ENGR 470  Mechanical Advanced Competency (1-2)
ENGR 471  Electrical Advanced Competency (1-2)

**Electrical Focus** (choose 16 credits)

Students choosing an electrical focus must complete 2 credits of ENGR 471, 0-2 credits of ENGR 355 and 12-14 credits of ENGR 455 or ENGR 470. At least 12 credits of ENGR 355 and ENGR 455 must be in the field of electrical engineering. At least two of the four engineering projects must include design of electrical systems.

ENGR 355  Elective Technical Competency (1-2)
ENGR 455  Advanced Technical Competency (1-8)
ENGR 470  Mechanical Advanced Competency (1-2)
ENGR 471  Electrical Advanced Competency (1-2)

**Other Focus Areas** (choose 16 credits)

Students choosing a focus area other than mechanical or electrical must complete 0-2 credits of ENGR 355 and 14-16 credits of ENGR 455, ENGR 470 or ENGR 471. At least 14 credits of ENGR 355 and ENGR 455 must be in the field of focus. At least two of the four engineering projects must include design of focus-area systems.

ENGR 355  Elective Technical Competency (1-2)
ENGR 455  Advanced Technical Competency (1-8)
ENGR 470  Mechanical Advanced Competency (1-2)
ENGR 471  Electrical Advanced Competency (1-2)

**COURSE DESCRIPTIONS**

**ENGR 110 (3) Introduction to Project-based Engineering**

Introduction of the engineering design process, professional skills necessary for the modern engineer, learning strategies needed for academic success, and overview of engineering applications relevant to society. Students will use engineering tools to complete an engineering team project.

Fall, Spring

**ENGR 293 (1) MAX Scholar Seminar**

This class provides MAX scholars with an opportunity to explore a set of topics related to achieving success in academic, professional and personal realms. Speakers will include faculty, graduate students, visiting researchers and industry members as well as student participants.

Pre: Recipient of a MAX scholarship or instructor consent

Fall, Spring

**ENGR 301 (3) Design I**

Students learn and practice the essential elements of engineering design through industry project implementation: scoping, modeling, experimentation, analysis, modern tools, design reviews, multi-disciplinary systems view, creativity, safety, business plans, global/societal/environmental impacts.

Fall, Spring

**ENGR 302 (3) Design II**

Students further learn and practice the elements of engineering design through industry project implementation: scoping, modeling, experimentation, analysis, modern tools, design reviews, multi-disciplinary systems view, creativity, safety, business plans, global/societal/environmental impacts.

Pre: ENGR 301

Fall, Spring

**ENGR 311W (3) Professionalism I**

Students learn and develop the elements of professionalism while operating in project teams interacting daily with clients in industry. Topics include leadership, metacognition, teamwork, written and oral communication, ethics, and professional and personal responsibility.

Pre: ENGR 311W

Fall, Spring

**ENGR 312W (3) Professionalism II**

Students further learn and develop the elements of professionalism while operating in project teams interacting daily with clients in industry. Topics include further examination of leadership, metacognition, teamwork, written and oral communication, ethics, and professional and personal responsibility.

Pre: ENGR 311W

Fall, Spring

**ENGR 320 (1-2) Engineering Core Competencies**

Students gain breadth across all objectives and depth in the areas of engineering statistics and either programming or mathematical modeling.

Pre: Admission to Program

Fall, Spring

**ENGR 355 (1-2) Elective Technical Competency**

In-depth study of an engineering area related to an engineering project or foundation topic in a focus area such as biomedical, chemical, combustion, computer, electrical, engineering management, environmental, mechanical, process, renewable energy, structural, systems or transportation engineering.

Pre: Admission to Program

Fall, Spring

**ENGR 370 (1-6) Mechanical Core Competencies**

Students gain breadth across all objectives and depth in an area of: dynamic systems, manufacturing processes, material science, mechanics of materials, thermodynamics, fluid mechanics.

Pre: Admission to program

Fall, Spring

**ENGR 371 (1-6) Electrical Core Competencies**

Students gain breadth across all objectives and depth in a focused area in these core competencies: instrumentation, AC circuits, signals and systems, electronics, digital logic, electric machines.

Pre: Admission to program

Fall, Spring

**ENGR 398 (0) CPT: Co-Operative Experience**

Curricular Practical Training: Co-Operative Experience is a zero-credit full-time practical training experience for one summer and on adjacent fall or spring term. Special rules apply to preserve full-time student status. Please contact an advisor in your program for complete information.

Pre: MA TH 223. At least 60 credits earned; in good standing; instructor permission; co-op contract; other prerequisites may also apply.

Fall, Spring, Summer

**ENGR 401 (3) Capstone Design I**

The first in a two-semester sequence of capstone design. Students build on the experience gained in ENGR 301/ ENGR 302 to bring their implementation to that expected of contributing engineers in industry.

Pre: ENGR 302, ENGR 312W

Fall, Spring

**ENGR 402 (3) Capstone Design II**

This is the second capstone design course and fourth design course overall. Expectations include potential patent applications, entry in business plan competitions, or some similarly high level achievement.

Pre: ENGR 401, ENGR 411W

Fall, Spring
The Interdisciplinary Studies baccalaureate major is designed to give highly-motivated, self-directed students an opportunity to work with the faculty to create their own program and earn an undergraduate degree. Interdisciplinary Studies is a liberal-education program designed for students who wish to major in an interdisciplinary area with coherency of design.

Policies/information

Admission to Major: Admission will be granted to students who meet eligibility requirements and who complete a formal application to the Interdisciplinary Studies program. Eligibility requirements are as follows:

- Student must have a current, cumulative GPA of 2.0 or higher, according to the Minnesota State Mankato records.
- Student should apply after earning a minimum of 32 semester credits and before completing 80 semester credits, according to Minnesota State Mankato records. Students having more than 80 credits may still be considered for the Interdisciplinary Studies program if they are willing to meet all requirements of the program.
- After meeting with the Director of Interdisciplinary Studies, the student must submit a formal application on a form provided by the director.

Areas of Concentration. Students seeking the Interdisciplinary Studies degree will select three academic areas in which to concentrate their work. A faculty in each of the three areas of study should be selected to help them arrange and oversee their course work.

Continuation in Program. The following rules explain the requirements for a student to continue in the Interdisciplinary Studies program and to receive a university degree. The Interdisciplinary Studies major must:

- Maintain a minimum 2.5 GPA overall for the three areas of study.
- Every course counted in the three areas must have a "C" or better, unless "P/NC" is specified for a course.
- Complete all university’s graduation requirements.
- Complete a minimum of 15 credit hours in each of the three areas of study.
- Complete a capstone project synthesizing the areas of study in IDST 496.

Interdisciplinary Studies

College of Arts & Humanities
226 Armstrong Hall • 507-389-1712

Director: Kristen Treinen

Major Common Core

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<tr>
<th>Major Common Core</th>
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<tr>
<td>IDST 496</td>
<td>Capstone Experience (4)</td>
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Degree completion = 120 credits
INTERNATIONAL BUSINESS

Degree completion = 120 credits

Required General Education
- ECON 201 Principles of Macroeconomics (3)
- ECON 202 Principles of Microeconomics (3)
- MATH 130 Finite Mathematics and Introductory Calculus (4)

Pre-requisites to the Major
- ACCT 200 Financial Accounting (3)
- ACCT 210 Managerial Accounting (3)
- BLAW 200 Legal, Political, and Regulatory Environment of Business (3)
- BUS 295 Professional Preparation for Business Careers (2)
- ECON 207 Business Statistics (4)
- IT 101 Introduction to Information Systems (3)
- MGMT 200 Introduction to MIS (3)

Major Common Core
- Required of all College of Business Majors (18 credits)
- FINA 362 Business Finance (3)
- IBUS 380 Principles of International Business (3)
- MGMT 330 Principles of Management (3)
- MGMT 346 Production and Operations Management (3)
- MGMT 481 Business Policy and Strategy (3)
- MRKT 310 Principles of Marketing (3)
Required of all International Business Majors (15 credits)

IBUS 428 International Marketing (3)
IBUS 448 International Business Management (3)
IBUS 469 International Business Finance (3)
IBUS 485 Export Administration (3)
IBUS 490 International Business Policy (3)

Major Restricted Electives
Choose two courses (6 credits) from one of the following business functional areas (Marketing, Finance, or Management).

OPTION A: Marketing
MRKT 316 Consumer Behavior (3)
MRKT 318 Promotional Strategy (3)
MRKT 324 Marketing Research and Analysis (3)
MRKT 339 Distribution Strategy (3)
MRKT 412 Professional Selling (3)
MRKT 420 Sales Management (3)

OPTION B: Finance
ACCT 310 Management Accounting I (3)
FINA 460 Investments (3)
FINA 462 Strategic Financial Management (3)
FINA 463 Security Analysis (3)
FINA 464 Financial Institutions and Markets (3)
FINA 467 Insurance and Risk Management (3)

OPTION C: Management
MGMT 385 Introduction to Management Science (3)
MGMT 440 Human Resource Management (3)
MGMT 441 Staffing (3)
MGMT 444 Organization Design, Development, and Change (3)
MGMT 459 Management Information Systems (3)
MGMT 480 Human Behavior in Organizations (3)

Major Unrestricted Electives
(choose at least 6 credits from the following)

ECOM 420 International Economics (3)
FREN 202 Intermediate French II (4)
GEOG 341 World Regional Geography (3)
GER 202 Intermediate German II (4)
IBUS 419 International Business Seminar (3)
IBUS 491 In-Service (1-4)
IBUS 492 Study Tour (1-3)
IBUS 498 Internship (1-3)
IBUS 499 Individual Study (1-3)
POL 231 World Politics (3)
SCAN 293 Intermediate Norwegian II (1-4)
SCAN 295 Intermediate Swedish II (1-4)
SPAN 202 Intermediate Spanish II (4)

Required Minor: None

INTERNATIONAL BUSINESS MINOR

Minor Core
IBUS 380 Principles of International Business (3)
MRKT 310 Principles of Marketing (3)
(choose four courses (12 credits) from the following)
IBUS 419 International Business Seminar (3)
IBUS 428 International Marketing (3)
IBUS 448 International Business Management (3)
IBUS 469 International Business Finance (3)
IBUS 485 Export Administration (3)
IBUS 490 International Business Policy (3)
IBUS 491 In-Service (1-4)
IBUS 492 Study Tours (1-3)

COURSE DESCRIPTIONS

BUS 100 (3) Introduction to Business and Business Careers
This course prepares students for success by exposing them to the requirements, expectation, resources and opportunities of the College of Business. Students will have business experiences and will develop professional skills.

BUS 295 (2) Professional Preparation for Business Careers
This course is required for admission to the College of Business for all business majors. The purpose of the course is to provide students with an overview of COB majors, allow students to create an academic plan for graduation, and develop professional skills needed for future job placement. Topics include cover letter and resume writing, interviewing skills, the process of networking, the internship program, etiquette skills, and requirements for graduation.

BUS 397 (3) IBE Practicum
An applied course that entails developing, launching, managing, and closing a business with the cohort of students enrolled in the class. Students write and present a business plan as they seek financing for their start-up company. The business start-up experience creates a real-world context in which students can practice the concepts introduced in MGMT 330, MRKT 310, and FINA 362. BUS 397 is part of the United Prairie Bank Integrated Business Experience, and students must enroll concurrently in BUS 397 and sections of FINA 362, MGMT 330, and MRKT 310 that are designated for IBE students.

Pre: Must be admitted to the College of Business
Coreq: FINA 362, MGMT 330, MRKT 310

BUS 380 (3) Principles of International Business
International dimensions of business: global business environment (economic, cultural, legal, political) and international business functions (management, marketing, finance, exporting, importing).

Pre: Junior Standing

BUS 398 (0) CPT: Co-Operative Experience
Curricular Practical Training: Co-Operative Experience is a zero-credit full-time practical training experience for one summer and on adjacent fall or spring term. Special rules apply to preserve full-time student status. Please contact an advisor in your program for complete information.

Pre: IBUS 201. At least 60 credits earned; in good standing; instructor permission; co-op contract; other prerequisites may also apply.

BUS 419 (3) International Business Seminar
Topics on current developments in international business, technology, and legislation.

Pre: IBUS 380

BUS 428 (3) International Marketing
Managerial approach to marketing decision making in multicultural market situations.

Pre: MRKT 310, IBUS 380

BUS 448 (3) International Business Management
This course examines cross-cultural differences in business practices. Among the topics covered are the differences in management styles, multiculturalism, international negotiations, as well as international human resource issues, social responsibility and ethics in a global context, international labor relations, cultural synergy and multicultural teams.

Pre: IBUS 380

BUS 469 (3) International Business Finance
International finance functions in a corporation include currency issues, investment, financial markets interacting, raising debt and equity, and export financing.

Pre: IBUS 380

BUS 485 (3) Export Administration
Provides knowledge and documentary skills in managing and implementing the export operations of firms engaged in international trade.

Pre: IBUS 380
IBUS 490 (3) International Business Policy
A capstone course for students majoring in international business designed to
analyze and integrate the various international business management decisions.
Pre: IBUS 428, IBUS 448, IBUS 469
Spring

IBUS 491 (1-4) In-Service
Topics will vary across various hands-on practical experiences.
Pre: Consent
Variable

IBUS 492 (1-3) Study Tours
Study tours are led by Minnesota State University, Mankato faculty and provide
students with opportunities to visit companies and attend lectures by renowned
experts from key sectors of economy, government, and business.
Variable

IBUS 493 (1-3) Individual Study
Individual study of special topics.
Pre: Consent
Fall, Spring

IBUS 497 (1-9) Internship
Supervised experience in business, industry, state or federal institutions.
P/N only.
Pre: Consent
Fall, Spring

IBUS 498 (1-3) Internship
Supervised experience in business, industry, state or federal institutions. Taken
for grade only.
Pre: Consent
Fall, Spring

IBUS 499 (1-3) Individual Study
Individual study of special topics.
Pre: Consent
Fall, Spring

International Relations
College of Social & Behavioral Sciences
Department of Government
109 Morris Hall • 507-389-2721
http://sbs.mnsu.edu/psle/relations/

Program Director: Abdalla Battah, 507-389-1019
Email: abdalla.battah@mnsu.edu

Advisors: Abdalla Battah, Tom Inglot, Eiji Kawabata, Jackie Vieceli

The International Relations Major consists of 42 credit hours plus a minimum
of one year (8 credits) of a foreign language. (The 42 required credits may include
experiential learning or study abroad, maximum of 15 credits. Students must
always consult with their advisor for the final approval of all experiential learning/study abroad credits for the International Relations major.) The International
Relations degree is designed to prepare students for employment in international
organizations, governmental and charitable agencies in the international arena,
and business and financial institutions with overseas interests, or to provide a
broad liberal arts education.

POLICIES/INFORMATION

Admission to Major is granted by the department. Minimum university admission
requirements are:
- a minimum of 32 earned semester credit hours
- a minimum cumulative GPA of 2.5 (“C”).

To prepare a program of study suitable to the needs and interests of the individual
student, the international relations major is required to consult with an advisor.
The student’s individualized program will be on file with the Department of Gov-
ernment and the awarding of a degree will depend upon fulfillment of the program.

Admission Policy. Students seeking admission to the International Relations
major must have a cumulative GPA of 2.5.

GPA Policy. Students must have a GPA of 2.5 to graduate with an International
Relations major.

P/N Grading Policy. With the exception of internship credits, which must be
taken on a P/N basis, no more than one-fourth of the credits in the major may
be taken as P/N. Internship credits will not be counted as part of the one-fourth
limitation, but will be subtracted from the total hours required for the major or
minor prior to the computation of the one-fourth limitation.

Minimum Credit Requirement. All students (including transfer students)
majoring in International Relations must take a minimum of 15 credits of Inter-
national Relations courses at Minnesota State Mankato before graduation with
BA in International Relations.

Minimum Credit Requirement. All students (including transfer students) minor-
ing in International Relations must take a minimum of 9 credits of International
Relations courses at Minnesota State Mankato before graduation.

With the consent of an International Relations advisor, the student may utilize credits
in foreign language above and beyond the 100 level, from the approved course list.

Employment opportunities with respect to this degree are highly dependent upon
the area the student selects as a companion minor or second major. For possible
second majors or minors and employment opportunities associated with each,
he student is urged to consult with an advisor.

The International Relations major consists of a Major Common Core (12 credits),
Major Electives (15 credits), a Major Emphasis (15 credits), and International
Experiential Learning (6-15 credits).

No more than 6 credits taken for POL 491 (Internship) count toward the Inter-
national Relations major.

No more than 6 credits taken toward completing the Political Science major or the
Political Science minor can be counted toward the International Relations major.

INTERNATIONAL RELATIONS BA
Degree completion = 120 credits

Major Common Core
POL 231 World Politics (3)
POL 241 Introduction to Comparative Politics (3)
POL 431 International Relations (3)

Comparative Politics (choose 3 credits)
POL 435 Capitalism, Nationalism, and Democracy (3)
POL 439 Comparative Social Policy: The Welfare State in Europe and
the Americas (3)
POL 440 Topics in Comparative Politics (1-4)
POL 441 Russia & Neighboring States Politics (3)
POL 442 South Asia: Politics & Policy (3)
POL 443 Middle East Politics (3)
POL 444 Latin American Politics (3)
POL 445 Asian Pacific Rim: Politics & Policy (3)
POL 446 African Politics (3)
POL 447 European Democracies (3)
POL 448 Political Development & Change (3)
Major Restricted Electives (choose 15 credits)
Advisor approval is required for “Topics” courses other than POL 430 and POL 440.

ANTH 285 Special Topics (1-3)
ANTH 332 Anthropology of Religion (3)
ANTH 421W Health, Culture, and Disease (3)
ANTH 430 Peoples and Cultures of Latin America (3)
ANTH 435 The Rise of City-States and Nations (3)
ANTH 485 Topics in Anthropology (1-3)
ART 413 Scandinavian Art (3)
ART 416 Art of Africa, the Americas, and the South Pacific (3)
ART 417 Medieval Art and Architecture (3)
ART 419 Gender in Art (3)
ART 462 Renaissance Art (3)
ART 463 Mannerism to Romanticism (3)
ART 466 Realism to Postmodernism (3)
ART 467 Art of the Islamic World (3)
ART 469 Asian Art (3)
ART 492 Art History Seminar (1-6)
BLAW 453 International Legal Environment of Business (3)
CMST 203 Intercultural Communication (3)
ECON 201 Principles of Macroeconomics (3)
ECON 420 International Economics (3)
ECON 450 Economic Development (3)
ENG 433 Selected Studies in World Literature (4)
ENG 435 The World Novel (2-4)
FREN 305 France Today (1-4)
FREN 350 Introduction to French Literature (3)
FREN 405 Business French I (2-4)
FREN 406 Business French II (2-4)
FREN 442 French Literature II (1-4)
GEOG 341 World Regional Geography (3)
GEOG 409 Selected Topics (1-4)
GEOG 425 Economic Geography (3)
GEOG 437 Political Geography (3)
GEOG 445 Latin America (3)
GEOG 446 Canada (3)
GEOG 450 Europe (3)
GEOG 454 Russian Realm (3)
GEOG 456 Africa (3)
GEOG 458 Geography of East Asia (3)
GER 442 German Literature (1-4)
GER 455 German Cinema (3)
GER 460 Topics in German Cinema (4)
HIST 302 World History: An Overview (4)
HIST 402 Foundations of Judaism, Christianity, & Islam (4)
HIST 412 Modern Germany since 1500 (4)
HIST 415 England since 1603 (4)
HIST 419 France since the Revolution in 1789 (4)
HIST 421 Modern Russia (4)
HIST 424 Scandinavian History (4)
HIST 427 Eastern Europe (4)
HIST 431 European History: Selected Topics (1-4)
HIST 434 East Asian History: 1800-1945 (4)
HIST 435 East Asian History: 1945 - The Present (4)
HIST 436 History of East Asian Relations with the United States (4)
HIST 437 African History to 1800 (4)
HIST 438 Comparative Slavery and Emancipation (4)
HIST 478 America in Vietnam (4)
IBUS 380 Principles of International Business (3)
IBUS 419 International Business Seminar (3)
IBUS 428 International Marketing (3)
IBUS 448 International Business Management (3)
IBUS 469 International Business Finance (3)
IBUS 490 International Business Policy (3)
MRKT 428 International Marketing (3)
PHIL 321 Social & Political Philosophy (3)
PHIL 336W History of Philosophy: Renaissance and Modern Philosophy (3)
PHIL 337 19th Century Philosophy (3)
PHIL 358W Eastern Philosophy (3)
PHIL 361 Philosophy of Religion (3)
POL 201 Issues in Politics (1-3)
POL 234 Model United Nations (3)
POL 311 Ancient & Medieval Political Philosophy (3)
POL 312 Early Modern Political Philosophy (3)
POL 313 Modern Political Philosophy (3)
POL 416 Nonwestern Political Philosophy (3)
POL 425 Terrorism & Political Violence (3)
POL 430 Topics in International Relations (1-4)
POL 431 International Relations (3)
POL 432 International Law (3)
POL 433 International Organization (3)
POL 434 United States Foreign Policy (3)
POL 435 Capitalism, Nationalism, and Democracy (3)
POL 436 International Political Economy (3)
POL 437 International Conflict Resolution (3)
POL 438 International Relations of East Asia (3)
POL 439 Comparative Social Policy: The Welfare State in Europe and the Americas (3)
POL 440 Topics in Comparative Politics (1-4)
POL 441 Russia & Neighboring States Politics (3)
POL 442 South Asia: Politics & Policy (3)
POL 443 Middle East Politics (3)
POL 444 Latin American Politics (3)
POL 445 Asian Pacific Rim: Politics & Policy (3)
POL 446 African Politics (3)
POL 447 European Democracies (3)
POL 448 Political Development & Change (3)
POL 449 Comparative Criminal Justice Systems (3)
SCAN 251W Scandinavian Culture: The Sami (4)
SCAN 451 Scandinavian Crime Fiction (4)
SCAN 455 Topics in Scandinavian Film (4)
SOC 307 Population Dynamics (3)
SPAN 355 Spanish Civilization (1-4)
SPAN 356 Latin American Civilization (1-4)
SPAN 403 Topics in Spanish American Literature (1-4)

Major Emphasis: Security & Peace (S&P) (choose 15 credits)
Must take at least 2 of the following: POL 432, POL 433, POL 437.
CMST 203 Intercultural Communication (4)
GEOG 437 Political Geography (3)
HIST 436 History of East Asian Relations with the United States (4)
HIST 465 History of U.S. Foreign Relations, 1775-1900 (4)
HIST 466 History of U.S. Foreign Relations in the Twentieth Century (4)
HIST 478 America in Vietnam (4)
PHIL 358W Eastern Philosophy (3)
POL 201 Issues in Politics (1-3)
POL 234 Model United Nations (3)
POL 425 Terrorism & Political Violence (3)
POL 430 Topics in International Relations (1-4)
POL 432 International Law (3)
POL 433 International Organization (3)
POL 434 United States Foreign Policy (3)
POL 435 Capitalism, Nationalism, and Democracy (3)
POL 436 International Political Economy (3)
POL 437 International Conflict Resolution (3)
POL 438 International Relations of East Asia (3)
POL 445 Asian Pacific Rim: Politics & Policy (3)
PHIL 358W Eastern Philosophy (3)
POL 442 South Asia: Politics & Policy (3)
POL 443 Middle East Politics (3)
POL 444 Latin American Politics (3)
POL 445 Asian Pacific Rim: Politics & Policy (3)
POL 446 African Politics (3)
POL 447 European Democracies (3)
POL 448 Political Development & Change (3)
POL 449 Comparative Criminal Justice Systems (3)
SCAN 251W Scandinavian Culture: The Sami (4)
SCAN 451 Scandinavian Crime Fiction (4)
SCAN 455 Topics in Scandinavian Film (4)
SOC 307 Population Dynamics (3)
Major Emphasis: International Political Economy (IPE)
Required 15 credits. Must take POL 436 and at least 2 of the following: ECON 420, IBUS 380, POL 433, POL 435, POL 448.
CMST 203 Intercultural Communication (4)
ECON 201 Principles of Macroeconomics (3)
ECON 420 International Economics (3)
ECON 450 Economic Development (3)
GEOG 425 Economic Geography (3)
GEOG 437 Political Geography (3)
IBUS 380 Principles of International Business (3)
IBUS 419 International Business Seminar (3)
IBUS 428 International Marketing (3)
IBUS 448 International Business Management (3)
IBUS 469 International Business Finance (3)
IBUS 490 International Business Policy (3)
MRKT 428 International Marketing (3)
PHIL 358W Eastern Philosophy (3)
POL 201 Issues in Politics (1-3)
POL 234 Model United Nations (3)
POL 430 Topics in International Relations (1-4)
POL 432 International Law (3)
POL 435 Capitalism, Nationalism, and Democracy (3)
POL 436 International Political Economy (3)
POL 437 International Conflict Resolution (3)
POL 438 International Relations of East Asia (3)
POL 439 Comparative Social Policy: The Welfare State in Europe and the Americas (3)
POL 440 Topics in Comparative Politics (1-4)
POL 441 Russia & Neighboring States Politics (3)
POL 442 South Asia: Politics & Policy (3)
POL 443 Middle East Politics (3)
POL 444 Latin American Politics (3)
POL 445 Asian Pacific Rim: Politics & Policy (3)
POL 446 African Politics (3)
POL 447 European Democracies (3)
POL 448 Political Development & Change (3)
POL 449 Comparative Criminal Justice Systems (3)
SCAN 451 Scandinavian Crime Fiction (4)

Major Emphasis: Regional Studies (RS)
Choose 15 credits at least 6 credits must be from 300-400-level Political Science Courses.
ATHN 285 Special Topics (1-3)
ATHN 332 Anthropology of Religion (3)
ANTH 430 Peoples and Cultures of Latin America (3)
ANTH 432 Kinship, Marriage and Family (3)
ART 413 Scandinavian Art (3)
ART 416 Art of Africa, the Americas, and the South Pacific (3)
ART 417 Medieval Art and Architecture (3)
ART 462 Renaissance Art (3)
ART 463 Mannerism to Romanticism (3)
ART 466 Realism to Postmodernism (3)
ART 467 Art of the Islamic World (3)
ART 469 Asian Art (3)
ART 492 Art History Seminar (1-6)
CMST 203 Intercultural Communication (4)
ENG 321 British Literature: 1785-Present (4)
ENG 435 The World Novel (2-4)
FREN 217 Modern France (1-3)
FREN 305 France Today (1-4)
FREN 350 Introduction to French Literature (3)
FREN 402 French Civilization (3-4)
FREN 417 Modern France (1-3)
FREN 432 French Literature I (1-4)
FREN 442 French Literature II (1-4)
GEOG 341 World Regional Geography (3)
GEOG 425 Economic Geography (3)
GEOG 437 Political Geography (3)
GEOG 440 Field Studies (1-4)
GEOG 445 Latin America (3)
GEOG 446 Canada (3)
GEOG 450 Europe (3)
GEOG 454 Russian Realm (3)
GEOG 456 Africa (3)
GEOG 458 Geography of East Asia (3)
HIST 412 Modern Germany since 1500 (4)
HIST 415 England since 1603 (4)
HIST 419 France since the Revolution in 1789 (4)
HIST 421 Modern Russia (4)
HIST 424 Scandinavian History (4)
HIST 427 Eastern Europe (4)
HIST 431 European History: Selected Topics (1-4)
HIST 434 East Asian History: 1800-1945 (4)
HIST 435 East Asian History: 1945 - The Present (4)
HIST 437 African History to 1800 (4)
HIST 438 Modern Africa (4)
HIST 442 History of Latin America (4)
PHIL 358W Eastern Philosophy (3)
POL 201 Issues in Politics (1-3)
POL 234 Model United Nations (3)
POL 416 Nonwestern Political Philosophy (3)
POL 430 Topics in International Relations (1-4)
POL 432 International Law (3)
POL 433 International Organization (3)
POL 434 United States Foreign Policy (3)
POL 435 Capitalism, Nationalism, and Democracy (3)
POL 436 International Political Economy (3)
POL 437 International Conflict Resolution (3)
POL 438 International Relations of East Asia (3)
POL 439 Comparative Social Policy: The Welfare State in Europe and the Americas (3)
POL 440 Topics in Comparative Politics (1-4)
POL 441 Russia & Neighboring States Politics (3)
POL 442 South Asia: Politics & Policy (3)
POL 443 Middle East Politics (3)
POL 444 Latin American Politics (3)
POL 445 Asian Pacific Rim: Politics & Policy (3)
POL 446 African Politics (3)
POL 447 European Democracies (3)
POL 448 Political Development & Change (3)
International Experiential Learning (6-15 credits)
The International Experiential Learning component consists of a minimum of 6 credits and a maximum of 15 credits. Wherever possible, students are encouraged to satisfy this requirement by undertaking study at a university abroad. However, under exceptional circumstances, a student may be allowed to satisfy the requirement through an approved internship.

In consultation with their academic advisors, students will design the international experiential learning component of their major. The proposed study abroad or internship must be approved in advance by the advisor and by other relevant university authorities prior to undertaking the courses or internships in question, and students must earn the equivalent of a grade of "C" or better for these credits to be counted toward the International Relations major.

The credits earned under this requirement may not be used to satisfy the major common core requirements, which must be fulfilled at Minnesota State Mankato. However, they may be used to satisfy the student’s chosen major concentration or as major elective credits. Note that the student may not use credits from language courses to satisfy his or her major concentration or as major elective credits and that no more than 6 credits taken for POL 491 (Internship) count toward the International Relations major.

Officially registered international students are exempt from the study abroad requirement.

Other Graduation Requirements
1. Minor, Any. Students are advised to consult with their advisor on the choice of a minor.
2. Foreign Language. The student may satisfy language requirement by completing a college level foreign language sequence of two courses (8 semester credits) with grades of "C" or above, or by demonstrating equivalent proficiency in a foreign language. Examples of the latter include scoring 3 or higher on an Advanced Placement Exam in a foreign language and graduating with a "C" average or better from a high school where the main classroom instruction was in a language other than English. Language credits do not count toward the International Relations degree. Talk to your advisor for full details.

International Relations Minor (18 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>POL 231</td>
<td>World Politics</td>
<td>3</td>
</tr>
<tr>
<td>POL 241</td>
<td>Introduction to Comparative Politics</td>
<td>3</td>
</tr>
<tr>
<td>POL 431</td>
<td>International Relations</td>
<td>3</td>
</tr>
<tr>
<td>POL 300-400</td>
<td>Any comparative politics course</td>
<td>3</td>
</tr>
</tbody>
</table>

Required Electives (6 credits)
Choose 6 credits of electives from the approved list of IR program courses at the 300 and 400 level only.

Iron Range Engineering (see Integrated Engineering)

Iron Range Engineering (see Integrated Engineering)
Department of Integrated Engineering
College of Science, Engineering & Technology
141 Trafton Science Center N • 507-389-2744
Websites: cset.mnsu.edu/ie and www.ire.mnsu.edu
Chair: Rebecca Bates
Faculty: Rebecca Bates, Leslie Flemming, Cheol-Hong Min, Elizabeth Pulskwik
Affiliated Iron Range Faculty: Ronald Ulseth (Co-Director), Andy Lillesve

Japanese

Japanese
College of Arts & Humanities
Department of World Languages & Cultures
227 Armstrong Hall • 507-389-2116
Website: www.mnsu.edu/languages
Chair: Gregory Taylor

Although Minnesota State Mankato does not offer a degree in Japanese, students may register for Japanese courses offered at Gustavus Adolphus College for Minnesota State Mankato credit.

Latin

Latin
College of Arts & Humanities
Department of World Languages & Cultures
227 Armstrong Hall • 507-389-2116
Website: www.mnsu.edu/languages
Chair: Gregory Taylor

Although Minnesota State Mankato does not offer a degree in Latin, students may register for Latin courses offered at Gustavus Adolphus College for Minnesota State Mankato credit.
**Latin American Studies**

*College of Social & Behavioral Sciences*

*Department of History*

110 Armstrong Hall • 507-389-1619

Alfredo Duplat, James A. Grabowska, Kimberly E. Contag, Adriana Gordillo, Elizabeth Harmsa, Tomasz Inglot, Marlene Medrano, Jose Lopez, Gregory Taylor, Enrique Torner

This interdisciplinary minor enables students from a variety of majors to focus on Latin America. This training is useful in many careers including international business, international relations, Spanish and social studies teaching, and the disciplines of the departments that contribute to the minor. When filing for graduation, Latin American studies minors should enter the code LATA in the column where minors are listed.

**Policies/Information**

**GPA Policy.** Minors must have a minimum GPA of 2.0 (“C”).

**P/N Grading Policy.** No more than one fourth of credits in minor may be taken P/N.

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**Law Enforcement**

*College of Social & Behavioral Sciences*

*Department of Government*

109 Morris Hall • 507-389-2721

Website: www.mnsu.edu/pse

Director: Tamara Wilkins

Program Advisor: Gertrude Kunkel

Susan Burum, Collen Clarke, Christian Dobratz, Patricia Nelson, Ken Zimny

The law enforcement program is designed for individuals seeking a professional career in criminal justice and law enforcement. It is open to in-service students who wish to improve their basic education, and to pre-service students who may be interested in pursuing a career in law enforcement.

In order to enter the police profession, applicants should be aware that height, visual and other physical and mental standards are set by law enforcement agencies. Students should be aware that some criminal convictions prevent licensure as a peace officer. Law enforcement students should consider these standards.

**Policies/Information**

**Admission to Major.** Option I is granted by the department. Admission to Option I requires satisfaction of departmental GPA and course prerequisites as well as POST Board documentation. Since these requirements are subject to change, students should contact the Government Department Office for current admission requirements. Both academic and physical agility standards are set by law enforcement agencies. Students should be aware that some criminal convictions prevent licensure as a peace officer. Law enforcement students should consider these standards.

**Admission to Major.** Option II is granted by the department. Contact the department for application procedures.

**GPA Policy.** Students seeking to graduate with a bachelor’s degree in law enforcement (either option) must have accrued a 2.6 grade-point average in their major and earn a grade of “C” or better in POL 111.

**P/N Grading Policy.** All law enforcement classes (both options and minor) except LAWE 492 must be taken for a grade.

**Repeated Course Policy.** Students majoring in law enforcement (either option) may not repeat a course more than once, and no more than three different LAWE classes (including those accepted as transfer credits) may be repeated within a five year period.

**Minimum Courses Policy.** All students (including transfer students) majoring in Law Enforcement (either option) must take a minimum of five (5) different LAWE classes at Minnesota State Mankato for a total of not less than fifteen (15) credit hours.

All students (including transfer students) seeking a minor in law enforcement must take a minimum of three (3) different LAWE classes at Minnesota State Mankato for a total of not less than nine (9) credit hours.

**Minnesota Licensure.** The student must successfully complete the Option I program and an integrated “skills” program, and meet other P.O.S.T. Board and Minnesota State Mankato requirements before being approved to take the P.O.S.T. Board licensure examination. This includes being certified in first aid and CPR (First Responder or EMT currently qualify). Only graduates of certified two and four year academic programs that also meet the requirements of the “skills” program providers may enter an integrated skills program. The licensure examination is administered by P.O.S.T. and covers those items included in the P.O.S.T. Board academic and skills learning objectives. **Note: Since P.O.S.T. Board rules change from year to year we advise students to contact the program director for current rules regarding licensure.**

**Law Enforcement BA**

Degree completion = 120 credits

**OPTION I: Minnesota P.O.S.T. Board Certification**

**Required General Education**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>POL 111</td>
<td>United States Government (3)</td>
</tr>
</tbody>
</table>

**Major Restricted Electives**

(choose 12 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 131</td>
<td>Forensic Science (3)</td>
</tr>
<tr>
<td>CHEM 134</td>
<td>Mind Altering Substances (3)</td>
</tr>
<tr>
<td>CMST 100-499</td>
<td></td>
</tr>
<tr>
<td>CORR 100-499</td>
<td></td>
</tr>
<tr>
<td>ETHN 100-499</td>
<td></td>
</tr>
</tbody>
</table>
### Major Emphasis
Successfully apply for admission to Option I program before taking 300-400 level classes. See Law Enforcement Office for details.

**LAWE 131** Introduction to Law Enforcement (3)
**LAWE 231** Criminal Law & Procedures (3)
**LAWE 232** Victims/Survivors: Police Response (3)
**LAWE 233** Criminal Investigation (3)
**LAWE 234** Policing in a Diverse Society (3)
**LAWE 331** Police Stress (3)
**LAWE 332** Police Juvenile Justice Procedure (3)
**LAWE 335** Police and Community Relations (3)
**LAWE 343** Law Enforcement Mindset I (3)
**LAWE 430** Law Enforcement Mindset II (3)
**LAWE 431** Police Patrol: Theory/Practice (3)
**LAWE 432** Minnesota Criminal Code (3) (criminal code and traffic law)
**LAWE 433** Senior Seminar (3)

(choose 3 credits)

**POL 221** Introduction to Political Analysis (3)
**POL 260** Introduction to Public Administration (3)
**POL 371** State & Local Government (3)

### OPTION II: Non-MN P.O.S.T. Board Certification

#### Required General Education
**POL 111** United States Government (3)

#### Major Restricted Electives
(choose 12 LAWE credits at the 300-400 level)

**LAWE 300 - LAWE 499**

#### Major Emphasis: Option II Non-MN P.O.S.T. Board Certification
Successfully apply for admissions to Option II program before taking 300-400 level classes. See Law Enforcement Office for details.

**LAWE 131** Introduction to Law Enforcement (3)
**LAWE 231** Criminal Law & Procedures (3)
**LAWE 232** Victims/Survivors: Police Response (3)
**LAWE 233** Criminal Investigation (3)
**LAWE 234** Policing in a Diverse Society (3)
**LAWE 331** Police Stress (3)
**LAWE 332** Police Juvenile Justice Procedure (3)
**LAWE 335** Police and Community Relations (3)
**LAWE 343** Law Enforcement Mindset I (3)
**LAWE 430** Law Enforcement Mindset II (3)
**LAWE 431** Police Patrol: Theory/Practice (3)
**LAWE 432** Minnesota Criminal Code (criminal code and traffic law) (3)
**LAWE 433** Senior Seminar (3)

(choose 3 credits)

**POL 221** Introduction to Political Analysis (3)
**POL 260** Introduction to Public Administration (3)
**POL 371** State & Local Government (3)

### OPTION II: Non-MN P.O.S.T. Board Certification

#### Required General Education
**POL 111** United States Government (3)

#### Major Restricted Electives
(choose 9 credits)

**CHEM 131** Forensic Science (3)
**CHEM 134** Mind Altering Substances (3)
**CMST 100 - CMST 499**
**CORR 100 - CORR 499**
**ETHN 100 - ETHN 499**
**GWS 100 - GWS 499**
**HLTH 210** First Aid & CPR (3)
**LAWE 100 - LAWE 499**
**POL 100 - POL 499**
**PSYC 100 - PSYC 499**
**RPLS 100 - RPLS 499**
**SOC 100 - SOC 499**
**SOWK 100 - SOWK 499**
**SPAN 100 - SPAN 499**

### Other Graduation Requirements
**Required for Bachelor of Arts (BA) degree ONLY:** Language (8 credits)

**Minor, Any.**

#### LAW ENFORCEMENT BS
Degree completion = 120 credits

### OPTION I: Minnesota P.O.S.T. Board Certification

#### Required General Education
**POL 111** United States Government (3)

#### Major Emphasis: Option I MN P.O.S.T. Board Certification
Successfully apply for admissions to Option I program before taking 300-400 level classes. See Law Enforcement Office for details.

**LAWE 131** Introduction to Law Enforcement (3)
**LAWE 231** Criminal Law & Procedures (3)
**LAWE 232** Victims/Survivors: Police Response (3)
**LAWE 233** Criminal Investigation (3)
**LAWE 234** Policing in a Diverse Society (3)
**LAWE 331** Police Stress (3)
**LAWE 332** Police Juvenile Justice Procedure (3)
**LAWE 335** Police and Community Relations (3)
**LAWE 343** Law Enforcement Mindset I (3)
**LAWE 430** Law Enforcement Mindset II (3)
**LAWE 431** Police Patrol: Theory/Practice (3)
**LAWE 432** Minnesota Criminal Code (criminal code and traffic law) (3)
**LAWE 433** Senior Seminar (3)

(choose 3 credits)

**POL 221** Introduction to Political Analysis (3)
**POL 260** Introduction to Public Administration (3)
**POL 371** State & Local Government (3)

### Major Emphasis

#### Major Restricted Electives (choose 12 credits)
Six of the 12 must be LAWE elective credits, of which 3 must be at the 300-400 level.

**CHEM 131** Forensic Science (3)
**CHEM 134** Mind Altering Substances (3)
**CMST 100 - CMST 499**
**CORR 100 - CORR 499**
**ETHN 100 - ETHN 499**
**GWS 100 - GWS 499**
**HLTH 210** First Aid & CPR (3)
**LAWE 100 - LAWE 499**
**POL 100 - POL 499**
**PSYC 100 - PSYC 499**
**RPLS 100 - RPLS 499**
**SOC 100 - SOC 499**
**SOWK 100 - SOWK 499**
**SPAN 100 - SPAN 499**

### Major Emphasis: Option I MN P.O.S.T. Board Certification

#### Required General Education
**POL 111** United States Government (3)

#### Major Restricted Electives (choose 9 credits)
Three of the 9 credits must be LAWE electives

**CHEM 131** Forensic Science (3)
**CHEM 134** Mind Altering Substances (3)
**CMST 100-499**
**CORR 100-499**
**ETHN 100-499**
**GWS 100-499**
**HLTH 210** First Aid & CPR (3)
**LAWE 100-499**
**POL 100-499**
**PSYC 100-499**
**RPLS 100-499**
**SOC 100-499**
**SOWK 100-499**
**SPAN 100-499**

### Other Graduation Requirements
**Required for Bachelor of Arts (BA) degree ONLY:** Language (8 credits)

**Minor, Any.**
**COURSE DESCRIPTIONS**

**LAWE 131 (3) Introduction to Law Enforcement**
The course provides a survey of the institutions and processes of the criminal justice system with an emphasis on the role of law enforcement agencies in a free society. Political theories of justice are explored with theories of crime causation. Fall, Spring

**LAWE 132 (3) Crime and Punishment**
An overview of conflicting theories in criminal justice and the tools to critically evaluate the theories and present the strengths and weaknesses of each in written, oral or other forms. Variable

**LAWE 231 (3) Criminal Law & Procedures**
The history and development of criminal law procedures and their application by law enforcement. Pre: LAWE 131 Fall, Spring
LAWE 337W (3) Police Writing
This course stresses the importance of solid fundamental writing in both the professional and academic setting. The overall objective is to teach students high quality writing skills. Half of the semester will be devoted to writing professional police reports. Students will have several opportunities to write and proofread reports. The second half of the semester will cover academic writing including the steps of academic writing, research, and APA format among others. Again students will have the opportunity to complete a research paper which will be peer-reviewed and then graded by the professor. Feedback will be provided to each student.
Fall, Spring, Summer
WI

LAWE 343 (3) Law Enforcement Mindset I
The course covers crisis intervention from an officer safety perspective, communications, persuasion, problem solving and interpersonal relations. It starts with the fundamentals and builds skills in working with emotionally distraught individuals, death notifications, suicide, dispute intervention, and interpersonal problem solving.
Fall, Spring

LAWE 343W (3) Law Enforcement Mindset I
This course covers crisis intervention from an officer safety perspective, communications, persuasion, problem solving and interpersonal relations. It starts with the fundamentals and builds skills in working with emotionally distraught individuals, death notifications, suicide, dispute intervention, and interpersonal problem solving.
Fall, Spring
WI

LAWE 393 (1-4) Issues in Law Enforcement
An examination of issues facing law enforcement today in constantly changing legal, social and cultural environments. Topics will vary and may be repeated for credit.
Pre: LAWE 131
Variable

LAWE 430 (3) Law Enforcement Mindset II
This course integrates officer safety and street communications. The class includes elements of fitness, use and legalities of force, theory and structured communication. Themes and skills are then integrated into law enforcement scenarios.
Pre: LAWE 343
Fall, Spring

LAWE 431 (3) Police Patrol: Theory/Practice
Provides students with specific procedures for handling various types of routine calls and situations and provides a base for handling those incidents which are not routine. Emphasizes critical thinking skills through discussion, assignments and evaluations.
Pre: Junior or senior standing
Fall, Spring

LAWE 432 (3) Minnesota Criminal Code (criminal code and traffic law)
An extensive study of Chapter 609, Minnesota Criminal Code, and traffic law.
Pre: LAWE 231, admission to Option I or consent
Fall, Spring

LAWE 433 (3) Senior Seminar
This is the capstone course for LAWE Option 1 and will include such topics as P.O.S.T. License review, ethics and interviewing skills.
Fall, Spring

LAWE 434 (3) Comparative Criminal Justice System
A comparison of criminal justice philosophies, structures, and procedures found in various countries around the world. Same as POL 449.
Variable

LAWE 435 (3) Jurisprudence
Philosophy and sources of law. Schools of legal philosophy and types of legal thinking. Emphasis is placed on Classical Natural Law, Analytical Legal Positivism, Legal Realism and Critical Legal Studies. Same as POL 452.
Fall

LAWE 436 (3) Civil Liberties
Review of selected United States Supreme Court decisions interpreting important freedoms contained in the Bill of Rights and the 14th Amendment. Focus is on the rationale which underlies decisions and its impact on American political social processes. Provides an opportunity to exercise and develop individual analytical abilities through analysis of Court’s reasoning. Same as POL 454.
Variable

LAWE 437 (3) Judicial Process
An examination of the structure, jurisdiction and processes of federal and state courts. Emphasis is placed on selection of judges and justices and on the dynamics of judicial decision-making. Same as POL 475.
Variable

LAWE 438 (3) Terrorism & Political Violence
History, philosophy, techniques and countermeasures to terrorist and law intensity threats to public order. Both domestic and international terror. The blurring of the lines between low intensity conflict/terrorism and multinational high intensity crime. Same as POL 425.
Variable

LAWE 439 (3) Police Administration & Planning
An examination of emerging administrative and management concepts and the processes related to their implementation.
Variable

LAWE 441 (3) Federal Law Enforcement & Homeland Security
Explores history and development of federal law enforcement in the United States; the current make-up and jurisdictions of various federal law enforcement agencies; homeland security efforts, including current legal, policy, and law enforcement strategies at the federal level.
On-Demand

LAWE 491 (1-5) Topics in Law Enforcement
This course explores topics in law enforcement beyond what is covered in the existing curriculum. Students study specialized topics of current importance in the field. Specific topics will change depending on the term and instructor. May be retaken with a change of topic.
Variable

LAWE 492 (1-8) Internship
Field placement with a law enforcement agency or related organization. Provides a learning experience in which the student can integrate and apply knowledge and theory derived from curriculum. P/N only.
Variable

LAWE 493 (1-3) Individual Study
Advanced study and research on topics not currently available in existing courses. May be repeated with a change of topic. Requires advisor and instructor approval of topic.
Variable
Liberal Studies
College of Arts & Humanities
Liberal Studies Program
226 Armstrong Hall • 507-389-1712
Coordinator: 507-389-1712

This Associate of Arts (AA) degree is intended for those students who wish to pursue a two-year balanced program of liberal education.

Management
College of Business
Department of Management
150 Morris Hall • 507-389-2966
Website: www.mgmt.mnsu.edu

Chair: Miles Smayling
Queen Booker, Kathy Dale, Marilyn Fox, Jon Kalinowski, John Kaliski, Rakesh Kawatra, Sung Kim, Chris Brown Mahoney, Howard Miller, Claudia Pragman, Buddhadev Roychoudhury, Paul Schumann, Dooyoung Shin, Cheryl Trahms

The primary objective of the Department of Management is to offer a program of study with the aim of developing the technical, analytical and conceptual skills for future professionals of the private and public sectors. The program provides the student with fundamental principles and practices of effective management. Emphasis is placed on organizational functioning within changing socio-cultural, economic, legal and political environments. Students may select and complete one or both of the following emphases: general management or human resource management.

POLICIES/INFORMATION

Admission to a Major in the College of Business. Admission to a major in the College of Business typically occurs at the beginning of the student’s junior year. The student may choose to pursue a degree in one or more of the following COB majors: Accounting, Finance, International Business, Management, or Marketing. Multiple criteria will be considered for admission to a major in the College of Business. Admission is competitive; meeting minimum requirements does not guarantee admission. Deadlines for application are: October 1 for Spring Semester and March 1 for Fall Semester.

Criteria Considered for Admission to the Management Major
1. Cumulative (Including Transfer) Grade Point Average: minimum 2.7.
2. Credits and Courses: 33 completed credits of the 44 general education requirements
3. Completion of the following courses: IT 101, MATH 130, ACCT 200, ACCT 210, BLAW 200, MGMT 200, BUS 295, ECON 201, ECON 202, AND ECON 207. Complete one of the following courses: PHIL 120W, PHIL 205W, PHIL 222W, PHIL 224W, PHIL 226W, or PHIL 240W.

Academic Advising. Students will initially receive their advising from the professional advisors in the College of Business Advising Center. When a student applies to the College of Business, he/she will be assigned a faculty advisor in the major area of study. Questions regarding the assignment of advisors can be answered in the College of Business Advising Center, 151 Morris Hall, telephone: 507-389-2963.

College of Business Policies. Students who are business minors, non-business majors or those who are not seeking a four year degree may take up to 24 credits in the College of Business. Students must be admitted to a College of Business to be granted a Bachelor of Science degree in any College of Business major.

Residency. Transfer students must complete a minimum of 30 resident credits at the upper division (300-400) level in the College of Business at Minnesota State Mankato.

Transfer students pursuing a major or minor in the College of Business must complete at least 50% (one-half) of their major or minor coursework at Minnesota State Mankato.

GPA Policy. Students must earn a minimum grade point average of 2.0 (“C”) on the total courses taken in the College of Business and a 2.25 overall GPA to meet graduation requirements.

P/N Grading Policy. No more than one-fourth of a student’s major shall consist of P/N grades.

Assessment Policy. The College of Business believes that the ongoing assessment of its programs makes a vital contribution to the quality of those programs and to student learning. Student participation is an important and expected part of the assessment process.

Internships. Students are encouraged to participate in business and industrial organizations through internship programs. Internships are available during the junior and senior years. Students interested in internships should interview early with the Internship Coordinator for enrollment in this program.

Student Organizations. Delta Sigma Pi is a national coeducational business fraternity organized to further the camaraderie of business students and professionals. Delta Sigma Pi provides members the opportunity to network with current business students and alumni throughout the United States.

Mavericks for SHRM is an accredited member of the Society for Human Resource Management and is in direct contact with human resource executives through conferences, meetings and social events. All majors are welcome.

The Enactus Team is a national, student organization within the College of Business that welcomes students from any major with an interest in starting a business.

The Council of Student Business Organizations (COSBO) which is comprised of the presidents of the student organizations and the college representative to the Student Senate, works directly with the Dean’s office in the coordination of activities of the various organizations and sponsors activities of their own.

MANAGEMENT BS
Degree completion = 120 credits

Required General Education
ECON 201 Principles of Macroeconomics (3)
ECON 202 Principles of Microeconomics (3)
MATH 130 Finite Mathematics and Introductory Calculus (4)

Pre-requisites to the Major
ACCT 200 Financial Accounting (3)
ACCT 210 Managerial Accounting (3)
BLAW 200 Legal, Political, and Regulatory Environment of Business (3)
BUS 295 Professional Preparation for Business Careers (2)
ECON 207 Business Statistics (4)
IT 101 Introduction to Information Systems (3)
MGMT 200 Introduction to MIS (3)

Major Common Core

Required of all College of Business majors (choose 18 credits)
FINA 362 Business Finance (3)
IBUS 380 Principles of International Business (3)
MGMT 330 Principles of Management (3)
MGMT 346 Production & Operations Management (3)
MGMT 481 Business Policy & Strategy (3)
MRKT 310 Principles of Marketing (3)

Required for Minor

MGMT 330 Principles of Management (3)
MGMT 340 Human Resource Management (3)
MGMT 380 Human Behavior in Organizations (3)
MGMT 441 Staffing (3)
MGMT 442 Compensation Management (3)
MGMT 445 Training & Development (3)
MGMT 447 Management: Special Topics (3)
MGMT 449 Quality Management (3)
MGMT 473 Enterprise Resource Planning (ERP) (3)
MGMT 477 Negotiation and Conflict Resolution (3)
MGMT 478 Project Management (3)
MGMT 486 Strategic Human Resource Management (3)
MGMT 487 Business, Society, & Ethics (3)
MGMT 488 Leadership (3)
MGMT 497 Internship (3)

Major Emphasis: BUSINESS MANAGEMENT

MGMT 340 Human Resource Management (3)
MGMT 380 Human Behavior in Organizations (3)
MGMT 444 Organizational Design, Development, and Change (3)
MGMT 459 Management Information Systems (3)
MGMT 472 Project Management (3)

Electives
(choose 9 credits at least three courses from the following)
ACCT 310 Management Accounting I (3)
BLAW 477 Negotiation and Conflict Resolution (3)
BUS 397 IBE Practicum (3)
MGMT 385 Introduction to Management Science (3)
MGMT 443 Entrepreneurship (3)
MGMT 447 Management: Special Topics (3)
MGMT 449 Quality Management (3)
MGMT 473 Enterprise Resource Planning (ERP) (3)
MGMT 482 Business, Society, & Ethics (3)
MGMT 484 Leadership (3)
MGMT 497 Internship (3)

Major Emphasis: HUMAN RESOURCE MANAGEMENT

BLAW 452 Employment and Labor Law (3)
MGMT 340 Human Resource Management (3)
MGMT 380 Human Behavior in Organizations (3)
MGMT 441 Staffing (3)
MGMT 442 Compensation Management (3)
MGMT 445 Training & Development (3)
MGMT 486 Strategic Human Resource Management (3)

Electives
(choose at least 3 credits from the following)
ACCT 310 Management Accounting I (3)
BUS 397 IBE Practicum (3)
ECON 403 Labor Economics (3)
FINA 362 Business Finance (3)
HLTH 488 Worksite Health Promotion (3)
MET 423 Ergonomics & Work Measurement (3)
MGMT 498 Internship (3)

Required Minor: None.

HUMAN RESOURCE MANAGEMENT MINOR

Requirement for the Human Resource Management Minor:
1. Students must be admitted to a major at Minnesota State Mankato, and
2. Students must have a cumulative GPA of 2.7 or higher when starting the Human Resources Management minor

Required for Minor

MGMT 330 Principles of Management (3)
MGMT 340 Human Resource Management (3)
MGMT 380 Human Behavior in Organizations (3)
MGMT 441 Staffing (3)
MGMT 442 Compensation Management (3)
MGMT 445 Training and Development (3)

ENTREPRENEURSHIP AND INNOVATION MINOR

The Entrepreneurial studies minor is designed to expose, engage and support students in thinking and experiencing the processes, challenges, and opportunities associated with the interdisciplinary and team-based nature of beginning a new venture.

Core

The core for the Entrepreneurial Minor consists of the required Integrated Business Experience (12 hours) and an additional two courses (6 credits) which include MGMT 332 Creativity and Innovation and Entrepreneurship (MGMT 443). The Entrepreneurship course involves a major project that requires the development of a business plan related to the students major.

FINA 362 Business Finance (3)
MGMT 330 Principles of Management (3)
MGMT 332 Creativity and Innovation (3)
MGMT 443 Entrepreneurship (3)
MRKT 499 Independent Study/Practicum for IBE (3)
MRKT 310 Principles of Marketing (3)

COURSE DESCRIPTIONS

BUS 100 (3) Introduction to Business and Business Careers
This course prepares students for success by exposing them to the requirements, expectation, resources and opportunities of the College of Business. Students will have business experiences and will develop professional skills.

Variable

BUS 295 (2) Professional Preparation for Business Careers
This course prepares students for success by exposing them to the requirements, expectation, resources and opportunities of the College of Business. Students will have business experiences and will develop professional skills.

BUS 397 (3) IBE Practicum
BUS 397 is an applied course that entails developing, launching, managing, and closing a business with the cohort of students enrolled in the class. Students write and present a business plan as they seek financing for their start-up company. The business start-up experience creates a real-world context in which students can practice the concepts introduced in MGMT 330, MRKT 310, and FINA 362. BUS 397 is part of the United Prairie Bank Integrated Business Experience, and students must enroll concurrently in BUS 397 and sections of FINA 362, MGMT 330, and MRKT 310 that are designated for IBE students.
Pre: Must be admitted to the College of Business
Coreq: FINA 362, MGMT 330, MRKT 310
Fall, Spring

BUS 397 (3) IBE Practicum
BUS 397 is an applied course that entails developing, launching, managing, and closing a business with the cohort of students enrolled in the class. Students write and present a business plan as they seek financing for their start-up company. The business start-up experience creates a real-world context in which students can practice the concepts introduced in MGMT 330, MRKT 310, and FINA 362. BUS 397 is part of the United Prairie Bank Integrated Business Experience, and students must enroll concurrently in BUS 397 and sections of FINA 362, MGMT 330, and MRKT 310 that are designated for IBE students.
Pre: Must be admitted to the College of Business
Coreq: FINA 362, MGMT 330, MRKT 310
Fall, Spring

MGMT 200 (3) Introduction to MIS
This course explores information systems which assist management in planning, directing and controlling the activities of an organization. Primary emphasis is placed on analysis, design and implementation of systems which generate information for managerial purposes. This course includes the application of database management and spreadsheet processing systems.
Pre: IT 101
Fall, Spring

MGMT 330 (3) Principles of Management
This course examines basic management concepts and principles, their historical development, and their application to modern organizations. Topics covered include planning, organizing, decision making, leadership, control, and organizational change. In addition, the course includes an introduction to business ethics and social responsibility, human resource management, organizational design and organizational behavior.
Pre: COB Junior Standing
Fall, Spring
MGMT 322 (3) Creativity and Innovation
This course is designed to develop a student’s personal creativity and help a student identify the process of organizational innovation. The course is comprised of a combination of short lecture, in-class discussion of readings and videos, writing assignments, an elevator pitch and group activities.
Pre: MGMT 330
Variable

MGMT 340 (3) Human Resource Management
This course examines the effective management of the human resources of organizations. Topics include analyzing jobs and writing job descriptions; recruiting and hiring of applicants; complying with employment law; managing promotions, quits, and layoffs; employee training and development; evaluating job performance; determining compensation; and managing human resources in a unionized environment.
Fall, Spring

MGMT 346 (3) Production & Operations Management
This course engages students in the study of the operations management function in manufacturing and service organizations. Students learn how to apply the basic analytical models to operation decisions involving topics such as scheduling, production technology, inventory management, quality assurance, just-in-time production, and others.
Pre: ECON 207
Fall, Spring

MGMT 380 (3) Human Behavior in Organizations
Concepts, theories, and empirical research on organizational behavior are studied. Models and tools for diagnosing situations, individual behavior, group behavior, intergroup conflicts, supervisory problems and organizational change are analyzed.
Pre: MGMT 330
Fall, Spring

MGMT 385 (3) Introduction to Management Science
This course introduces a scientific approach to modeling and solving managerial decision problems. It includes such topics as linear and integer programming, network models, waiting-line models, simulation analysis, and decision theory.
Variable

MGMT 398 (0) CPT: Co-Operative Experience
Curricular Practical Training: Co-Operative Experience is a zero-credit full-time practical training experience for one summer and on adjacent fall or spring term. Special rules apply to preserve full-time student status. Please contact an advisor in your program for complete information.
Pre: MGMT 201. At least 60 credits earned; in good standing; instructor permission; co-op contract; other prerequisites may also apply.
Fall, Spring, Summer

MGMT 441 (3) Staffing
Students learn how to hire the best talent available using sound professional methods. Students design and present legally defensible recruiting and screening techniques for jobs they have analyzed.
Pre: MGMT 340
Fall, Spring

MGMT 442 (3) Compensation Management
The focus of this course is operating an effective, efficient, legal and responsible system for compensating one’s employees. Includes the workings of labor markets, analyzing jobs, finding the market value for jobs, designing a pay structure, appraising performance, setting individual pay, determining benefits, occupations requiring special pay programs.
Pre: MGMT 340
Fall, Spring

MGMT 443 (3) Entrepreneurship
The course is an active learning course where students are immersed in the process of starting a new enterprise. In managing their entrepreneurial projects, students conceptualize and develop business plans that includes self assessment, industry and market analyses, a marketing plan, human resource management, and financial analyses and projections.
Variable

MGMT 444 (3) Organization Design, Development, and Change
This course provides an understanding of the processes that cause organizations to be structured in various forms. The impact on size, technology, strategy, culture, and environmental conditions on structure are examined. The internal processes of power, conflict, culture, and organizational transformation are also emphasized.
Pre: MGMT 330
Fall, Spring

MGMT 445 (3) Training & Development
Students design and deliver training by assessing client needs, defining learning outcomes, choosing effective methods, training, and evaluating results.
Pre: MGMT 340
Fall, Spring

MGMT 447 (3) Management: Special Topics
Special topics as requested by students.
Pre: MGMT 330
Variable

MGMT 449 (3) Quality Management
This course covers essential topics in modern quality management within manufacturing and service organizations from a managerial perspective, including quality planning, culture, customer focus, leadership, vendor relations, the use of statistical quality control tools and software as well as behavioral issues in the improvement of process and product/service quality.
Pre: ECON 207 or equivalent
Variable

MGMT 458 (3) Corporate Information Systems
This course will provide conceptual frameworks and a practical guideline for understanding how information technologies can provide a competitive advantage, how to identify strategic information systems (SIS) opportunities and risks, how to manage organizational strategic information systems applications, and how to sustain such a competitive advantage in a global market.
Variable

MGMT 459 (3) Management Information Systems
This course is designed to prepare students to design and develop personal computer based information systems for management control and decision making using end-user software including spreadsheets and data base management systems. Students will design and develop several information systems as group projects.
Pre: MGMT 200, MGMT 330
Fall, Spring

MGMT 471 (3) Wireless Networks
This course will cover topics such as: cellular systems, personal communication services, wireless LANs, SMR (specialized mobile radio), infrared and microwave base communication services including geostationary satellites, LEOS, MEOS and specialized satellite services, VSAT systems, direct broadcasting, meteor burst communication systems, mobile (sea and land) based networks. Issues such as transmission methodologies (FDMA, TDMA, CDMA), routing LMDS, channel allocation, addressing and naming, locating mobile users, user authentication, privacy, security, bandwidth auctioning methods, and system expansion and transition over time.
Pre: Senior in MIS
Variable

MGMT 472 (3) Project Management
Students will develop skills needed to initiate, plan, execute, control and close projects. The course will cover theories, techniques, group activities, and use of computer tools like Microsoft Project for managing projects.

MGMT 473 (3) Enterprise Resource Planning (ERP)
This course covers ERP software in general and how it helps integrate information used by an organization’s many different functions and departments into a unified computing system. How to use an ERP system to improve the business functions of an organization by streamlining its operations will also be covered. Students will learn how to document business processes using different tools including EPC charts. In addition, the course also covers managerial issues associated with an ERP project and how to manage those issues.
Pre: MGMT 200
Variable
MANAGEMENT CONTINUED

MGMT 476 (3) Decision Support System
In the course of their decision activities, managers work with many pieces of knowledge and have to make informed decisions based on this knowledge. This course is designed to introduce students to the various decision making techniques and explore the techniques required for automating such activities among knowledge workers in an organization.
Pre: MGMT 385
Variable

MGMT 481 (3) Business Policy & Strategy
An integrative course for COB majors. Its emphasis is on understanding the role of a general manager, which should include an operations and international component.
Pre: MGMT 330, MGMT 346, MRKT 310, FINA 362 and IBUS 380
Fall, Spring

MGMT 482 (3) Business, Society & Ethics
Students learn how to apply moral principles to analyze ethical dilemmas in business. Students also learn how to argue for or against government regulation of business. Topics covered include bribery, anti-competitive business practices, pollution, product safety, marketing ethics, employee rights, sexual harassment, discrimination and affirmative action, conflicts of interest, and insider trading.

MGMT 484 (3) Leadership
The course provides a foundation for leadership development by offering theoretical background, practical information, and an opportunity for self-assessment that permits students to begin or continue the development of their leadership talent. The underlying theme upon which the course is based is that the ability to lead begins with reflection and self-awareness.

MANUFACTURING ENGINEERING TECHNOLOGY

Manufacturing Engineering Technology
College of Science, Engineering & Technology
Department of Automotive & Manufacturing Engineering Technology
205 Trafton Science Center E
Phone: 507-389-6383
Fax: 507-389-5002
Website: www.cset.mnsu.edu/met

Chair: Dr. Bruce E. Jones, Ph.D.

Faculty: Kuldeep Agarwal, Ph.D., Craig Evers, Ph.D., P.E., David Guerra-Zubia-ga, Ph.D., Gary Mead, Ph.D., Harry Petersen, Ph.D., P.E., Winston Sealy, Ph.D.

Accreditation. The Manufacturing Engineering Technology program is accredited by the Engineering Technology Accreditation Commission of ABET, 415 North Charles Street, Baltimore, MD 21201, 410.347.7700, www. ABET.org

The mission of the Manufacturing Engineering Technology (MET) degree program at Minnesota State Mankato is to provide a broad-based education to enable graduates to enter a variety of globally competitive manufacturing careers to serve the needs of the citizens of Minnesota, and the world by:
• providing the highest quality education to prepare application-oriented graduates for career opportunities in both traditional and computer-automated manufacturing environments;
• encouraging and supporting faculty, and students to engage in scholarly activities and research that support effective and ethical transfer of technology;
• providing access to state of the art equipment, facilities, and methodologies, along with faculty expertise to benefit MET students; and
• engaging in partnerships with area industry and other constituencies to broaden access to the program for traditional and diverse populations, while supporting K-12 pipeline development.

Program Description. Manufacturing Engineering Technology (MET) degree program awards a Bachelor of Science degree (BS) to successful students through a four-year curriculum.

“Engineering Technology” is the profession in which knowledge of the applied mathematical and natural sciences gained by higher education, practical experience, and competence developed in a specific field, is devoted to application of engineering principles and the implementation of technological advances for the benefit of humanity through its focus on product improvement, manufacturing, and automation of technological processes and operational functions. - Engineering Technology Council of the American Society of Engineering Education (ASEE).

“Modern manufacturing activities have become exceedingly complex because of rapidly increasing technology and expanded environmental involvement. This, coupled with increasing social, political, and economic pressures, has increased the demand for highly skilled manufacturing technologists, engineers, and managers.” – Society of Manufacturing Engineers Fundamentals of Manufacturing 2005.

Students use major study areas of applied mathematics, engineering sciences and materials, product design, manufacturing processes, automated systems and controls, quality, manufacturing management and personal and professional effectiveness to perform in careers requiring the application of scientific and engineering knowledge and methods. Combined with technical skills in support of engineering activities; student careers often fit in the occupational spectrum between the craftsman and the engineer at the end of the spectrum closest to the engineer. Engineering technology is oriented less toward theory and more toward practical applications. (ASEE).

Manufacturing involves plans, materials, personnel, and equipment which are transformed in some way that adds value. Students acquire leadership and managerial skills necessary to enter careers in process and systems design, manufacturing operations, maintenance, technical sales or service functions. The curriculum concentrates on the study of individual subsystems and their overall optimization of cost, quality, speed, and flexibility goals for the success of a manufacturing enterprise. Students from the program are currently employed in a wide variety of industries including medical, electronics, power systems, defense, and automotive. A list of companies and industry sectors employing MET graduates may be obtained from the Department Chair.
MANUFACTURING ENGINEERING TECHNOLOGY CONTINUED

The Society of Manufacturing Engineers (sme.org) is the lead professional society used in developing program criteria used for guiding program relevance and continuous improvement. Students are encouraged to take the Certified Manufacturing Technician (CMT) exam in their senior year and pursue other certifications as their experience broadens.

The primary goal of the MET program is to provide all graduates with the solid technical foundation necessary to ensure their success in a wide variety of employment opportunities. To accomplish this goal, program outcomes and objectives are defined and assessed for continuous improvement. These are consistent with the mission of the university and college and reviewed by the Industrial Advisory Board on an annual basis. They are as follows:

Program Outcomes. Students at the time of graduation are prepared to:
1. apply knowledge, problem solving techniques, and hands-on skills in the assessment, design, application, and continuous improvement of manufacturing systems, including automated manufacturing, processes, process controls, manufacturing operations, management, and systems integration.
2. specify and implement hard and soft technologies to solve manufacturing system problems using creativity in design.
3. demonstrate the application of their knowledge of mathematics, statistics, science, engineering and technology.
4. conduct, analyze and interpret experiments and apply results to improve processes and systems.
5. recognize the need and develop the skills for life-long learning.
6. communicate effectively across all design and management interface levels of an organization.
7. function effectively in a team and or leadership environment.
8. implement accepted professional standards of integrity and ethical conduct.
9. understand and engage in behavior which respects diversity and global cultures.
10. practice timeliness and quality with regard to work requirements.

Program Objectives. Graduates two to three years into their careers should have the foundation to:
1. deliver products, services, and support to both internal and external organizations by applying technical knowledge, problem solving techniques and hands-on skills in traditional and emerging areas of manufacturing.
2. actively participate in on-going professional development, professional growth and increasing professional responsibility.
3. effectively communicate ideas to technical and non-technical people.
4. perform, lead, and manage in cross-functional teams.
5. work within the accepted standards of professional integrity and conduct.
6. design, analyze, build, and test virtual or real models in product development and continuous improvement environments.
7. implement, and continuously improve cost, quality, time, and flexibility goals using world class management methodologies.

POLICIES/INFORMATION

Admission to the MET Major is granted by the AMET Department. Admission to the major is required to register for 300-level courses. Minimum requirements for acceptance into the MET major include a cumulative GPA of 2.0 or higher and the completion of the following courses with a grade of “C” (2.0) or higher:

- CHEM 104
- CMST 100 or CMST 102
- EET 133
- ENG 101
- MET 104
- MET 142
- MET 144
- MET 177
- MATH 121, MATH 127
- STAT 154
- PHYS 211, PHYS 212

GPA Policy. A minimum GPA of 2.0 is required.

Refer to the College regarding required advising for students on academic probation.

Department Grade Policy. All courses in the MET Major, and the required Communications, Basic Science, and Mathematics courses must be completed with a grade of “C” or better.

P/N Grading Policy. No more than 1/4 of all undergraduate credits may be P/N, except those courses offered P/N only.

Residency. A minimum of 50 percent of the credits for a major or minor in Manufacturing Engineering Technology must be taken at Minnesota State Mankato.

Pre-requisites and co-requisites must be observed unless written permission is obtained from the instructor and the Department of AMET. A flow chart of pre-requisites is available in the Department Office.

The scheduling of all department courses is done annually, based on enrollment and staffing. To obtain a current class schedule, contact the Department.

MANUFACTURING ENGINEERING TECHNOLOGY BS
Degree completion = 128 credits

Required General Education
- ENG 271W Technical Communication (4)
- MATH 115 Precalculus Mathematics (4)

Pre-requisites to the Major
- CHEM 104 Introduction to Chemistry (3)
- EET 113 DC Circuits (3)
- ENG 101 Composition (4)
- MATH 121 Calculus I (4)
- MET 104 Introduction to Manufacturing Engineering Technology (1)
- MET 142 Introduction to Parametric Modeling (3)
- MET 144 Product Development and Design (3)
- MET 177 Materials Processing Metallurgy (4)
- PHYS 211 Principles of Physics I (4)
- STAT 154 Elementary Statistics (3)
- CMST 100 Fundamentals of Communication (3)
- CMST 102 Public Speaking (3)

Major Common Core
- AET 334 Fluid Power (3)
- AET 378 Composite Materials (3)
- MATH 122 Calculus II (4)
- MET 277 Manufacturing Processing (3)
- MET 323 Statics (3)
- MET 324 Strength of Materials and Dynamics (4)
- MET 341 Advanced Parametric Modeling (3)
- MET 347 Manufacturing Automation (3)
- MET 386 Metrology for Engineering Technologist (3)
- MET 407 Manufacturing Resource Planning and Control (3)
- MET 423 Ergonomics and Work Measurement (3)
- MET 424 Industrial Safety (2)
- MET 425 Project Valuation, Justification and Management (3)
- MET 426 Logistics and Transportation (3)
- MET 427 Quality Management Systems (3)
- MET 428 Lean Manufacturing (3)
- MET 448 Computer Integrated Manufacturing (3)
- MET 488W Senior Design Project I (2)
- MET 489W Senior Design Project II (2)
- PHYS 212 Principles of Physics II (4)

Minor Required: None.

MANUFACTURING ENGINEERING TECHNOLOGY MINOR

Required for Minor
- MET 104 Introduction to Manufacturing Engineering Technology (1)
- MET 142 Introduction to Parametric Modeling (3)
- MET 177 Materials Processing and Metallurgy (4)

Electives
(choose 8 additional credits of MET courses)
COURSE DESCRIPTIONS

MET 104 (1) Introduction to Manufacturing Engineering Technology
An overview of careers, technology and requirements for individuals interested in Manufacturing Engineering Technology. Hands-on experience is gained in a variety of new technologies. Careers in engineering and technology are examined along with professional organizations and ethics. The course is intended as a first step toward a career in manufacturing.
Fall

MET 142 (3) Introduction to Parametric Modeling
The course covers a process of developing and analyzing solid parametric models for mechanical applications. Course includes solving technical design problems based on real-world applications as well as creating technical documentation: working and assembly drawings.
Fall, Spring

MET 144 (3) Product Development and Design
Analysis and application of key steps in the product realization process. External and internal factors affecting strategic product life-cycle management are emphasized along with the relationship of design to marketing and manufacturing activities and product development cost implications. Students work individually and in teams on competitive design projects assessing customer needs, product specifications, generation and selection of concepts, prototype development, test and product production planning. Concentrates on development of verbal, written and e-communication skills. Provides knowledge and practice in conducting effective project management.
Fall, Spring

MET 177 (4) Materials Processing and Metallurgy
Fundamentals of machine technology and metallurgy. Theory and step-by-step procedures are used to provide instruction on how to turn materials into products. Students learn to perform machining on a lathe, mill, and drill press, and also inspect the products. Basics of metal processing, plastic molding, and other processes are discussed. Extra lab time is required.
Pre: MATH 113 or MATH 115 or higher
Fall, Spring

MET 277 (3) Manufacturing Processes
A study of the principles of manufacturing technologies and equipment used in the processing of an end product. Advanced manufacturing processes including casting, forging, sheet metal forming, material removal, and powder metals are discussed. Topics also include materials treatment, preparation, and design for manufacture. Extra lab time is required.
Pre: MET 177
Fall

MET 323 (3) Statics
This course covers principles of statics, force equilibrium, analysis of structures, friction, centroid, centers of gravity, and moment of inertia.
Pre: PHYS 211 and MATH 121
Fall, Spring

MET 324 (4) Strength of Materials and Dynamics
This course covers stress and strain, torsion, bending of beams, shearing stresses in beams, compound stresses, principal stresses, deflection of beams, columns, connections, and pressure vessels. Topics also include kinematics and kinetics of rigid bodies, work, energy and power.
Pre: MET 323
Fall, Spring

MET 341 (3) Advanced Parametric Modeling
The course emphasizes the use of parametric modeling in design, analysis and manufacturing. Topics include component design, assembly, mechanism, animation, EFX and rapid prototyping using computer technology.
Pre: MET 142
Fall, Spring

MET 347 (3) Manufacturing Automation
CNC programming, computer-aided manufacturing (CAM), flexible automation, machining centers, robotics, programmable logic controllers, tooling systems. Extra lab time is required.
Pre: EET 113, MET 277, MET 341
Spring

MET 386 (3) Metrology for Engineering Technologist
Quality and its continuous improvement is supported by metrology, statistical process control, and geometric dimensioning and tolerancing. This course presents these topics and their integration into operations.
Pre: MATH 121, MET 341, STAT 154. Admission to AET/MET major.
Fall

MET 398 (0) CPT: Co-Operative Experience
Curricular Practical Training: Co-Operative Experience is a zero-credit full-time practical training experience for one summer and on adjacent fall or spring term. Special rules apply to preserve full-time student status. Please contact an advisor in your program for complete information.
Pre: MET 104. At least 60 credits earned; in good standing; instructor permission; co-op contract; other prerequisites may also apply.
Fall, Spring, Summer

MET 407 (3) Manufacturing Resource Planning and Control
Strategic plant resource management for global manufacturing. Approaches examine and practice continuous improvements to the value stream related to design integration, production scheduling, staffing, facilities planning, and material flow.
Fall

MET 423 (3) Ergonomics & Work Measurement
Investigates work design and automated manual operations. Measurement, and development of design-based solutions for reduction of environmental stresses to the human body through worker-machine systems analysis are applied. Regulatory, legal, and ethical issues are reviewed in the context of global manufacturing applications.
Pre: STAT 154
Spring

MET 424 (2) Industrial Safety
Techniques of developing safety practices in an industrial environment. Topics include OSHA, current legislation, cost analysis, personal protection, employee selection, psychological aspects, product safety, hazard materials and catastrophe control.
Fall, Spring

MET 425 (3) Project and Value Management
Planning, management, and economic justification of projects are supported by computer tools for scheduling, staffing, and economic analysis.
Pre: STAT 154
Fall

MET 426 (3) Logistics and Transportation
Fundamentals of logistics and supply chain management: control of materials, WIP, finished goods, costs of logistics. Theory and step-by-step procedures are used to analyze logistic systems, material handling, packaging, and transport, including global logistics.
Pre: MET 407
Spring

MET 427 (3) Quality Management Systems
This course is focused on quality assurance systems, management philosophies, methodology, function and impact of quality systems in manufacturing operations. Development and application of statistical process control tools.
Pre: STAT 154
Fall

MET 428 (3) Lean Manufacturing
Basics of Lean Manufacturing in industry, with emphasis on application of concepts. Students will learn the principles of Lean Manufacturing and how they can benefit a business.
Pre: MET 427 or similar quality control course
Spring

MET 448 (3) Computer Integrated Manufacturing
This course covers the following topics: manufacturing systems integration techniques, Computer-Aided Design/Computer-Aided Manufacturing (CAD/CAM), Computer-Aided Process Planning (CAPP), Direct Numerical Control (DNC), Flexible Machining Systems (FMS), Automated Storage and Retrieval Systems (ASRS), Automated Guided Vehicles (AGV) and Robotics.
Pre: MET 347, PHYS 212
Fall
Requirements for the Marketing Minor

**PHIL, 205W, PHIL 222W, PHIL 224W, PHIL 226W, PHIL 240W**

**ECON 207.** Complete one of the following courses: PHIL 120W, ACCT 210, BLAW 200, MGMT 200, BUS 295, ECON 201, ECON 202, ECON 207. Complete one of the following courses: PHIL 120W, PHIL, 205W, PHIL 222W, PHIL 224W, PHIL 226W, PHIL 240W.

1. Cumulative (including Transfer) Grade Point Average: minimum 2.7 for Spring Semester and March 1 for Fall Semester.

2. Credits and Courses: 33 completed credits of the 44 general education requirements does not guarantee admission. Deadlines for application are: October 1 for Spring Semester and March 1 for Fall Semester.

Criteria Considered for Admission to the Marketing Major

1. Cumulative (including Transfer) Grade Point Average: minimum 2.7
2. Credits and Courses: 33 completed credits of the 44 general education requirements
3. Completion of the following courses: IT 101, MATH 130, ACCT 200, ACCT 210, BLAW 200, MGMT 200, BUS 295, ECON 201, ECON 202, ECON 207. Complete one of the following courses: PHIL 120W, PHIL, 205W, PHIL 222W, PHIL 224W, PHIL 226W, PHIL 240W.

**Requirements for the Marketing Minor**

**MET 488 (2) Senior Design Project I**

An examination of manufacturing design and research. Students refine their design proposal and begin their senior design projects. This course also prepares the student for MET 489, Senior Design Project II, where the design proposal, design project, and final report are completed. This course should be taken in the fall semester of the senior year.

Pre: ENG 271W, MET 277, MET 425, 10 AET or MET 300/400 level credits

**MET 488W (2) Senior Design Project I**

An examination of manufacturing design and research. Students refine their design proposal and begin their senior design projects. This course also prepares the student for MET 489, Senior Design Project II, where the design proposal, design project, and final report are completed. This course should be taken in the fall semester of the senior year.

Pre: ENG 271W, MET 277, MET 425, 10 AET or MET 300/400 level credits

**MET 489 (2) Senior Design Project II**

Completion of the capstone design project; a continuation of MET 488.

On-Demand

Pre: MET 488, Permission Required

**MET 489W (2) Senior Design Project II**

Completion of the capstone design project; a continuation of MET 488.

On-Demand

Pre: MET 488, Permission Required

**MET 497 (1-10) Internship: Manufacturing**

Manufacturing work experience in an area pertinent to the student’s objective. Consent of internship coordinator required prior to the beginning of employment and registration. Typically done between the junior and senior years.

Pre: 50% of major

**MET 499 (1-4) Individual Study**

Pre: Permission Required

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**Marketing**

**College of Business**

**Department of Marketing and International Business**

150 Morris Hall • 507-389-2967

Website: www.business.mnsu.edu/marketing

Chair: Juan (Gloria) Meng

Kevin Elliott, Mark Hall, Jianwei Hou, Ann Kuzma, John R. Kuzma, Kristin Scott

It is the objective of the department to advance the understanding and practice of marketing and international business.

Faculty advance the discipline of marketing through research, writing, and involvement in professional associations. They improve the practice of marketing with a progressive curriculum for full and part-time students. The region’s business community and public institutions also are directly served with student and faculty consulting and research projects.

The marketing major prepares students for marketing positions in retail management, industrial sales, promotion, marketing research, or marketing management, and equips them with the comprehensive knowledge necessary to assume upper management positions in the marketing function.

**POLICIES/INFORMATION**

**Admission to a Major in the College of Business.** Admission to a major in the College of Business typically occurs at the beginning of the student’s junior year. Once admitted, students may choose to pursue a degree in one or more of the following majors: Accounting, Finance, International Business, Management, or Marketing. Multiple criteria will be considered for admission to a major in the College of Business. Admission is competitive; meeting minimum requirements does not guarantee admission. Deadlines for application are: October 1 for Spring Semester and March 1 for Fall Semester.

**Requirements for the Marketing Minor**

1. Students must be admitted to a major at Minnesota State Mankato, and
2. Students must have a cumulative GPA of 2.7 or higher when starting the Marketing minor.

**Academic Advising.** Students will initially receive their advising from the professional advisors in the College of Business Advising Center. When a student applies to the College of Business, he/she will be assigned a faculty advisor in the major area of study. Questions regarding the assignment of advisors can be answered in the College of Business Advising Center, 151 Morris Hall, telephone: 389-2963.

**College of Business Policies.** Students who are business minors, non-business majors or those who are not seeking a four year degree may take up to 24 credits in the College of Business. Students must be admitted to a College of Business major to be granted a Bachelor of Science degree in any College of Business major.

**Residency.** Transfer students must complete a minimum of 30 resident credits at the upper division (300-400) level in the College of Business at Minnesota State Mankato.

Transfer students pursuing a major or minor in the College of Business must complete at least 50% (one-half) of their major or minor coursework at Minnesota State Mankato.

**GPA Policy.** Students must earn a minimum grade point average of 2.0 (“C”) on the total courses taken in the College of Business and a 2.25 overall GPA to meet graduation requirements.

**P/N Grading Policy.** No more than one-fourth of a student’s major shall consist of P/N grades.

**Assessment Policy.** The College of Business believes that the ongoing assessment of its programs makes a vital contribution to the quality of those programs and to student learning. Student Participation is an important and expected part of the assessment process.

**Internships.** Students are encouraged to participate in business and industrial organizations through internship programs. Internships are available during the junior and senior years. Students interested in internships should interview early with the Internship Coordinator for enrollment in this program.

**Student Organizations.** The Marketing Club offers students opportunities to network with professionals in marketing-related fields, contribute to the community through service projects and meet other students. All majors are welcome. Delta Sigma Pi is a coeducational business fraternity organized to further the camaraderie of business students and professionals. Delta Sigma Pi provides members the opportunity to network with current business students and alumni throughout the United States.
MARKETING CONTINUED

The Council of Student Business Organizations (COSBO) which is comprised of the presidents of nine organizations and the college representative to the Student Senate, works directly with the Dean’s office in the coordination of activities of the various organizations and sponsors activities of their own.

<table>
<thead>
<tr>
<th>MARKETING BS</th>
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<tbody>
<tr>
<td>Degree completion = 120 credits</td>
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</tbody>
</table>

**Required General Education**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 201</td>
<td>Principles of Macroeconomics (3)</td>
</tr>
<tr>
<td>ECON 202</td>
<td>Principles of Microeconomics (3)</td>
</tr>
<tr>
<td>MATH 130</td>
<td>Finite Mathematics and Introductory Calculus (4) (choose 3 credits from the following)</td>
</tr>
<tr>
<td>PHIL 120W</td>
<td>Introduction to Ethics (3)</td>
</tr>
<tr>
<td>PHIL 205W</td>
<td>Culture, Identity, and Diversity (3)</td>
</tr>
<tr>
<td>PHIL 222W</td>
<td>Medical Ethics (3)</td>
</tr>
<tr>
<td>PHIL 224W</td>
<td>Business Ethics (3)</td>
</tr>
<tr>
<td>PHIL 226W</td>
<td>Environmental Ethics (3)</td>
</tr>
<tr>
<td>PHIL 240W</td>
<td>Law, Justice &amp; Society (3)</td>
</tr>
</tbody>
</table>

**Pre-requisites to the Major**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 200</td>
<td>Financial Accounting (3)</td>
</tr>
<tr>
<td>ACCT 210</td>
<td>Managerial Accounting (3)</td>
</tr>
<tr>
<td>BLAW 200</td>
<td>Legal, Political, and Regulatory Environment of Business (3)</td>
</tr>
<tr>
<td>BUS 295</td>
<td>Professional Preparation for Business Careers (2)</td>
</tr>
<tr>
<td>ECON 207</td>
<td>Business Statistics (4)</td>
</tr>
<tr>
<td>IT 101</td>
<td>Introduction to Information Systems (3)</td>
</tr>
<tr>
<td>MGMT 200</td>
<td>Introduction to MIS (3)</td>
</tr>
</tbody>
</table>

**Major Core**

**Required of all College of Business Majors**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>FINA 362</td>
<td>Business Finance (3)</td>
</tr>
<tr>
<td>IBUS 380</td>
<td>Principles of International Business (3)</td>
</tr>
<tr>
<td>MGMT 330</td>
<td>Principles of Management (3)</td>
</tr>
<tr>
<td>MGMT 346</td>
<td>Production &amp; Operations Management (3)</td>
</tr>
<tr>
<td>MGMT 481</td>
<td>Business Policy &amp; Strategy (3)</td>
</tr>
<tr>
<td>MRKT 310</td>
<td>Principles of Marketing (3)</td>
</tr>
</tbody>
</table>

**Required for Marketing Major**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MRKT 316</td>
<td>Consumer Behavior (3)</td>
</tr>
<tr>
<td>MRKT 317</td>
<td>Product and Pricing Strategy (3)</td>
</tr>
<tr>
<td>MRKT 318</td>
<td>Promotional Strategy (3)</td>
</tr>
<tr>
<td>MRKT 324</td>
<td>Marketing Research &amp; Analysis (3)</td>
</tr>
<tr>
<td>MRKT 339</td>
<td>Distribution Strategy (3)</td>
</tr>
<tr>
<td>MRKT 420</td>
<td>Sales Management (3)</td>
</tr>
<tr>
<td>MRKT 428</td>
<td>International Marketing (3)</td>
</tr>
<tr>
<td>MRKT 492</td>
<td>Study Tour (1-3)</td>
</tr>
<tr>
<td>MRKT 494</td>
<td>Fair Trade Study Abroad in Belize (3)</td>
</tr>
</tbody>
</table>

**Major Unrestricted Electives**

(choose a minimum of two courses (6 credits) from the following)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 397</td>
<td>IBE Practicum (3)</td>
</tr>
<tr>
<td>MRKT 413</td>
<td>Industrial Marketing (3)</td>
</tr>
<tr>
<td>MRKT 415</td>
<td>Retailing Management (3)</td>
</tr>
<tr>
<td>MRKT 416</td>
<td>Internet Marketing (3)</td>
</tr>
<tr>
<td>MRKT 420</td>
<td>Sales Management (3)</td>
</tr>
<tr>
<td>MRKT 428</td>
<td>International Marketing (3)</td>
</tr>
<tr>
<td>MRKT 480</td>
<td>Seminar (3)</td>
</tr>
<tr>
<td>MRKT 491</td>
<td>In-Service (1-4)</td>
</tr>
<tr>
<td>MRKT 492</td>
<td>Study Tour (1-3)</td>
</tr>
<tr>
<td>MRKT 494</td>
<td>Fair Trade Study Abroad in Belize (3)</td>
</tr>
<tr>
<td>MRKT 498</td>
<td>Internship (1-3)</td>
</tr>
</tbody>
</table>

**Required Minor:** None.

**MARKETING MINOR**

**Requirements for the Marketing Minor**

1. Students must be admitted to a major at Minnesota State Mankato, and
2. Students must have a cumulative GPA of 2.7 or higher when starting the Marketing minor.

**Required Courses for COB Majors:** (choose 6 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MRKT 310</td>
<td>Principles of Marketing (3)</td>
</tr>
<tr>
<td>MRKT 316</td>
<td>Consumer Behavior (3)</td>
</tr>
</tbody>
</table>

**Elective Courses for COB Majors:** (choose 12 credits)

(Choose four of the following courses)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MRKT 317</td>
<td>Product and Pricing Strategy (3)</td>
</tr>
<tr>
<td>MRKT 318</td>
<td>Promotional Strategy (3)</td>
</tr>
<tr>
<td>MRKT 324</td>
<td>Marketing Research &amp; Analysis (3)</td>
</tr>
<tr>
<td>MRKT 339</td>
<td>Distribution Strategy (3)</td>
</tr>
<tr>
<td>MRKT 412</td>
<td>Professional Selling (3)</td>
</tr>
<tr>
<td>MRKT 413</td>
<td>Industrial Marketing (3)</td>
</tr>
<tr>
<td>MRKT 415</td>
<td>Retailing Management (3)</td>
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<tr>
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<td>Study Tour (1-3)</td>
</tr>
<tr>
<td>MRKT 494</td>
<td>Fair Trade Study Abroad in Belize (3)</td>
</tr>
</tbody>
</table>

**Required Courses for Non-COB Majors:** (choose 9 credits)

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>MRKT 316</td>
<td>Consumer Behavior (3)</td>
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<td>Internet Marketing (3)</td>
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<tr>
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<td>Study Tour (1-3)</td>
</tr>
<tr>
<td>MRKT 494</td>
<td>Fair Trade Study Abroad in Belize (3)</td>
</tr>
</tbody>
</table>

**COURSE DESCRIPTIONS**

**BUS 100 (3) Introduction to Business and Business Careers**

This course prepares students for success by exposing them to the requirements, expectation, resources and opportunities of the College of Business. Students will have business experiences and will develop professional skills.

**Variable**

**BUS 295 (2) Professional Preparation for Business Careers**

This course is required for admission to the College of Business for all business majors. The purpose of the course is to provide students with an overview of COB majors, allow students to create an academic plan for graduation, and develop professional skills needed for future job placement. Topics include cover letter and resume writing, interviewing skills, the process of networking, the internship program, etiquette skills, and requirements for graduation.

**Fall, Spring**

**BUS 397 (3) IBE Practicum**

An applied course that entails developing, launching, managing, and closing a business with the cohort of students enrolled in the class. Students write and present a business plan as they seek financing for their start-up company. The business start-up experience creates a real-world context in which students can practice the concepts introduced in MGMT 330, MRKT 310, and FINA 362. BUS 397 is part of the United Prairie Bank Integrated Business Experience, and students must enroll concurrently in BUS 397 and sections of FINA 362, MGMT 330, and MRKT 310 that are designated for IBE students.

**Pre:** Must be admitted to the College of Business

**Coreq:** FINA 362, MGMT 330, MRKT 310

**Fall, Spring**

**MRKT 100 (3) Global Business Concepts**

Focuses on the basic business functions of Accounting, Finance, Management, and Marketing in global context.

**Fall, Spring**

**GE-5**
MRKT 310 (3) Principles of Marketing
This course provides a basic understanding of marketing concepts with emphasis on the pricing, promotion, and distribution of need satisfying products and services in domestic and international markets. The format of the course consists of lectures, case discussions, application exercises, projects, exams, and in-class group assignments.
Fall, Spring

MRKT 316 (3) Consumer Behavior
Students will learn about consumer decision styles, perceptions, group influences, family decision-making, lifestyles, shopping behaviors and domestic and international trends related to marketing strategies. The framework consists of individual or group projects, usually requiring some personal interviewing, exams, and reports.
Coreq: MRKT 310
Fall, Spring

MRKT 317 (3) Product and Pricing Strategy
The intention of the course is to explore in depth the concepts involved in new product development, the management of products through the product life cycle, and the development of pricing policies and strategies. The course involves a lecture/discussion format with occasional group activities, projects and exams.
Pre: MRKT 310
Fall, Spring

MRKT 318 (3) Promotional Strategy
Promotional strategy focuses on the utilization of all the elements of the promotion mix—advertising, personal selling, publicity, sales promotion, and corporate sponsorship—in the development of an effective promotion plan.
Pre: MRKT 310
Fall, Spring

MRKT 319 (3) Marketing Research & Analysis
In this course, students will examine the role of research in decision making and the basics of scientific research, including the preparation of research proposals, design of data collection instruments, data analysis, interpretation, and reporting.
Pre: MRKT 310, ECON 207
Fall, Spring

MRKT 339 (3) Distribution Strategy
Defines the role of marketing channels within the marketing system. Topics in this course examine important issues in marketing distribution systems.
Pre: MRKT 310
Fall, Spring

MRKT 398 (0) CPT: CO-Operative Experience
Curricular Practical Training: Co-Operative Experience is a zero-credit full-time practical training experience for one summer and on adjacent fall or spring term. Special rules apply to preserve full-time student status. Please contact an advisor in your program for complete information.
Pre: MRKT 201. At least 60 credits earned; in good standing; instructor permission; co-op contract; other prerequisites may also apply.
Fall, Spring, Summer

MRKT 412 (3) Professional Selling
The course is designed to provide basic human motivation theories, and develop persuasive communications strategies and applications necessary in the field of professional selling. The course takes a hands-on approach to professional selling techniques with the use of sales presentations, sales manuals, and exams.
Pre: MRKT 310
Fall, Spring

MRKT 413 (3) Industrial Marketing
A broad examination of the techniques employed in business-to-business marketing. Topics include organizational buying, buyer-seller relationships and industrial marketing mix development.
Pre: MRKT 310
Variable

MRKT 415 (3) Retailing Management
The study of marketing at the retail level, including the organization, operations, methods, policies, and problems of retail establishments in satisfying consumers.
Pre: MRKT 310
Variable

MRKT 416 (3) Internet Marketing
This course is an examination of the role of the internet in contemporary marketing strategy and its impact on business decision making and consumer behavior.
Pre: MRKT 310
Variable

MRKT 420 (3) Sales Management
This course involves studying the role of the general sales manager, the functions of sales management within overall marketing strategy, and the development of analytical decision skills necessary to plan, manage, and control the sales force.
Pre: MRKT 310
Variable

MRKT 428 (3) International Marketing
This course takes a managerial approach to analyzing marketing decision making in multinational market situations.
Pre: MRKT 310 and IBUS 380
Fall

MRKT 480 (3) Seminar
Topics covered are specialized topics not covered in other courses and will be announced.
Pre: MRKT 310
Variable

MRKT 490 (3) Marketing Management
This course should be the last marketing class taken, since it involves comprehensive marketing strategy development, integrating all dimensions of the marketing offering, and utilizing marketing information systems for top-level control and decision making. Students will complete a formal marketing plan, case analyses, and examinations.
Pre: MRKT 310, MRKT 316, MRKT 317, MRKT 318, MRKT 324, and MRKT 339
Fall, Spring

MRKT 491 (1-4) In-Service
Topics will vary across various hands-on practical experience.
Pre: Consent
Variable

MRKT 492 (1-3) Study Tour
Study tours are led by Minnesota State University, Mankato faculty and provide students with opportunities to visit companies and attend lectures by renowned experts from key sectors of economy, government, and business.
Variable

MRKT 494 (3) Fair Trade Study Abroad in Belize
The curriculum focuses on Fair Trade, sustainability, and international business principles. Students will spend 9 days in Belize and learn about diverse populations, participate in a service learning project, and visit businesses who produce goods that are Fair Trade certified.
Spring
Diverse Cultures - Gold

MRKT 497 (1-9) Internship
Individual, supervised experience in a business firm or government agency. Taken for P/N only.
Pre: Consent
Fall, Spring

MRKT 499 (1-4) Individual Study
Individual study of special topics.
Pre: Consent
Fall, Spring
Mass Media

College of Arts & Humanities
Department of Mass Media
136 Nelson Hall • 507-389-6417
Website: www.mnsu.edu/masscom

Chair: Amy Lauters
Chuck Lewis, Jane S. McConnell, Ellen M. Mrja, Mavis Richardson

The mission of the Department of Mass Media is to foster the public good by advancing socially responsible mass media through education, research and service. The department strives to prepare students for careers as ethical and responsible public communicators, innovative creators of media texts, and competent professionals in such fields as news, public relations, and other media-related fields.

POLICIES/INFORMATION

Admission to Major or Minor is granted by the department. Contact the department for application procedures.

Proficiency in English grammar, spelling, composition and keyboarding is essential for admission to the major or minor. A diagnostic test in English usage is required to determine student’s preparation for the major or minor. The department requires that students complete with a cumulative GPA of 3.0 or better these courses (or their equivalents): ENG 101 and MASS 110. Overall GPA will also be considered in determining admission status. Students not meeting minimum requirements may petition the faculty in writing to seek admission.

No student entering the Mass Media program may take courses beyond MASS 110, MASS 112 & MASS 260 unless he/she has met the stated requirements. Students seeking entry into the department’s major or minor must present evidence of their satisfactory fulfillment of these requirements.

In preparation for undertaking a major in Mass Media, students should consider taking these courses (or their equivalents): ECON 100, GEOG 103, ETHN 100, POL 371, PSYC 101, SOC 150 and SOC 101.

GPA Policy. Majors must earn a cumulative GPA of 2.5 or better in all mass media coursework, in addition to the 2.0 overall GPA required by the University for graduation. Refer to the College regarding required advising for students on academic probation.

P/N Grading Policy. Mass Media majors are required to take department courses for a letter grade, except for MASS 498, which must be taken P/N.

Transferring into Mass Media. Students considering transferring into the mass media program at Minnesota State Mankato need to be aware of department admission requirements, including prerequisite courses, GPA and diagnostic examination. They should contact the department as early as possible for information that will assure a smooth transfer. Failure to plan ahead may delay or preclude admission to the program.

Transfer Credit. The department accepts no more than 13 credits from other colleges and universities as transfer credits to be applied toward the major. They must be taken in courses that match or are the equivalent of courses that are either offered by the department or allowed by it for elective credit.

Internships. Opportunities for mass media internships exist on and off campus for junior and senior majors who want to work in professional settings. The internship must be done under professional supervision and is taken only after the student has (1) completed all prerequisite courses; (2) submitted a department internship contract signed by the student, the student’s internship supervisor and the department chair.

Filing a Program. By the end of the sophomore year the student, through individual consultation with a department advisor, should complete and file with the department a proposed program.

The department recommends that students develop programs of study that are complementary to their major in mass media. Students interested in news writing are encouraged to minor in courses in liberal arts, such as art, English, literature, modern language, history, humanities, philosophy or political science. Students interested in public relations are encouraged to minor in courses in business administration, art, communication studies, marketing, English, psychology, or sociology.

Communication Facilities. In addition to fully equipped modern computerized classrooms, the Department of Mass Media has access to a broad range of on-campus facilities that provide students practical experience. Students majoring in mass media may contribute to producing a student-oriented campus newspaper, The Reporter, and programming for KMSU-FM radio.

Counseling and Guidance. The key to the department’s selective approach to mass media education is its counseling and guidance program. Students are encouraged to choose a department advisor. Working closely with this faculty person, students develop academic programs that relate to their needs, interests and career aspirations.

All policies pertaining to mass media majors also apply to mass media minors, including standards for granting admission to the minor, GPA and P/N Grading policies.

MASS MEDIA BA

Degree completion = 120 credits

Prerequisites to the Major
ENG 101 Composition (4)
MASS 110 Introduction to Mass Media (4)

Major Common Core
MASS 221W Basic Writing for Mass Media (4)
MASS 312 Mass Media Law (4)
MASS 411 Mass Media Ethics and Criticism (4)
MASS 498 Mass Media Internship (2-4)

Writing Intensive (choose 4 credits)

Major Restricted Electives
All Mass Media majors must complete at least one of the following five courses (4 or more credits). Majors may take MASS 233 and MASS 312 concurrently with, but not before, MASS 221.
MASS 233 Public Relations Principles (4)
MASS 260 Principles of Visual Mass Media (4)
MASS 325W Media Reporting and Editing (4)
MASS 330W Writing for Digital Multimedia (4)
MASS 340 Mass Media Research (4)

One of the Major Restricted Electives must also be a writing course. Choose one from the following:
MASS 325W Media Reporting and Editing (4)
MASS 330W Writing for Digital Multimedia (4)
MASS 334W Writing and Speaking for Broadcast (4)
MASS 431F Freelancing for Mass Media (4)
MASS 434W Public Relations Writing (4)
MASS 436W Specialized Writing (4)

Major Unrestricted Electives
All majors must choose additional courses from the following courses to reach at least 36 credits in the major. MASS 112 has no pre-requisites.
MASS 112 Mass Media and Children (2)
MASS 290 Selected Topics in Mass Media (1-4)
MASS 351 Digital Imaging for Mass Media (4)
MASS 360 Digital Design for Mass Media (4)
MASS 412 Mass Media History (4)
MASS 450 Strategic Communication Case Studies (4)
MASS 499 Individual Study in Mass Media (1-2)

Other Graduation Requirements:
Required for Bachelor of Arts (BA) degree ONLY: Language (8 credits)

Required Minor: Yes. Any.

MASS MEDIA BS
Degree completion = 120 credits

Pre-requisites to the Major
ENG 101 Composition (4)
MASS 110 Introduction to Mass Media (4)

Major Common Core
MASS 221W Basic Media Writing (4)
MASS 312 Mass Media Law (4)
MASS 411 Mass Media Ethics and Criticism (4)
MASS 498 Mass Media Internship (2-4)

Major Restricted Electives
All Mass Media majors must complete at least one of the following five courses (4 or more credits). Majors may take MASS 233 and MASS 312 concurrently with, but not before, MASS 221.
MASS 233 Public Relations Principles (4)
MASS 260 Principles of Visual Mass Media (4)
MASS 325W Media Reporting and Editing (4)
MASS 330W Writing for Digital Multimedia (4)
MASS 340 Mass Media Research (4)
Writing Intensive (choose 4 credits)
One of the Major Restricted Electives must be a writing course. Choose from the following:
MASS 325W Media Reporting and Editing (4)
MASS 330W Writing for Digital Multimedia (4)
MASS 334W Writing and Speaking for Broadcast (4)
MASS 431W Freelancing for Mass Media (4)
MASS 434W Public Relations Writing (4)
MASS 436W Specialized Writing (4)

Major Unrestricted Electives
All majors must choose additional courses from the following courses to reach at least 36 credits in the major. MASS 112 has no pre-requisites.
MASS 112 Mass Media and Children (2)
MASS 290 Selected Topics in Mass Media (1-4)
MASS 351 Digital Imaging for Mass Media (4)
MASS 360 Digital Design for Mass Media (4)
MASS 412 Mass Media History (4)
MASS 450 Strategic Communication Case Studies (4)
MASS 499 Individual Study in Mass Media (1-2)

Required Minor: Yes. Any.

MASS MEDIA MINOR
The mass media minor is for students who are interested in building skills in writing and media production in conjunction with their chosen majors. Students completing the minor will gain a solid understanding of the production and evaluation of media messages, ethics and law, and they will also gain skills needed to create media messages in a variety of formats suitable for numerous careers.
Pre-requisites: Students must complete and have a 3.0 GPA in ENG 101 and MASS 110 and must take the diagnostic exam prior to entering MASS 221.

Minor Core
ENG 101 Composition (4)
MASS 110 Introduction to Mass Media (4)
MASS 221 Basic Writing for Mass Media (4)
MASS 312 Mass Media Law (4)

MASS 411 Mass Media Ethics and Criticism (4)

Minor Elective (choose 8 credits)
MASS 233 Public Relations Principles (4)
MASS 260 Principles of Visual Mass Media (4)
MASS 290 Selected Topics in Mass Media (1-3)
MASS 325 Media Reporting and Editing (4)
MASS 330 Writing for Digital Multimedia (4)
MASS 334 Writing & Speaking for Broadcast (4)
MASS 340 Mass Media Research (4)
MASS 351 Digital Imaging for Mass Media (4)
MASS 360 Digital Design for Mass Media (4)
MASS 398 CPT: Co-Operative Experience (0)
MASS 412 Mass Media History (4)
MASS 431 Freelancing for Mass Media (4)
MASS 434 Public Relations Writing (4)
MASS 436 Specialized Writing (4)
MASS 450 Strategic Communications Case Studies (4)
MASS 499 Individual Study in Mass Media (1-2)

COURSE DESCRIPTIONS

MASS 110 (4) Introduction to Mass Media
Nature, functions, responsibilities and effects of the media in contemporary society.
GE-9
Diverse Cultures- Purple

MASS 112 (2) Mass Media and Children
Course will examine the role of mass media in children's lives. Media will be examined as educator, image-maker, entertainer and messenger of violence.
Summer

MASS 221 (4) Basic Writing for Mass Media
Basic techniques of gathering information and writing readable and accurate media stories.
Pre: ENG 101, MASS 110
Fall, Spring

MASS 221W (4) Basic Writing for Mass Media
Basic techniques of gathering information and writing readable and accurate media stories.
Pre: ENG 101, MASS 110
Fall, Spring

MASS 233 (4) Public Relations Principles
Survey of current practices and problems in the field of public relations. Emphasizes successful case histories and planning techniques.
Pre: MASS 221
Variable

MASS 260 (4) Principles of Visual Mass Media
Exploration of the basic principles of visual media design, stressing the significance of images in a mass media society. Special focus on contextualizing historical and technological changes affecting image production for mass media.
Variable
GE-6, GE-7
Diverse Cultures - Purple

MASS 290 (1-3) Selected Topics in Mass Media
Selected topics in mass media
Pre: MASS 221 or consent
Variable

MASS 312 (4) Mass Media Law
Principles of the First Amendment, libel, fair trial, privacy, access to news, pornography, and regulation of radio and television.
Pre: MASS 221
Fall, Spring
MASS 325 (4) Media Reporting and Editing
Discussion of and practice in reporting about public affairs and social issues, plus examination of copy editing and headline writing for traditional and new media.
Pre: MASS 221
Variable

MASS 325W (4) Media Reporting and Editing
Discussion of and practice in reporting about public affairs and social issues, plus examination of copy editing and headline writing for traditional and new media.
Pre: MASS 221
Variable

MASS 330 (4) Writing for Digital Multimedia
Reporting, writing and packaging news for online audiences with an emphasis on multimedia platforms; includes evaluation of news sites and critical consideration of best practices, and economic, ethical and legal issues.
Pre: MASS 221
Variable

MASS 330W (4) Writing for Digital Multimedia
Reporting, writing and packaging news for online audiences with an emphasis on multimedia platforms; includes evaluation of news sites and critical consideration of best practices, and economic, ethical and legal issues.
Pre: MASS 221
Variable

MASS 334 (4) Writing & Speaking for Broadcast
Planning, writing and delivering of broadcast news.
Pre: MASS 221
Variable

MASS 340 (4) Mass Media Research
This course introduces students to the concepts, approaches and tools for gathering and analyzing information in mass media research. Students will become acquainted with and effectively use the terminology and concepts used in mass media research.
Pre: MASS 221
Variable

MASS 351 (4) Digital Imaging for Mass Media
Instruction in the fundamental concepts, terminology, techniques and applications of digital imaging in mass media. Development of the basic skills necessary to design, create, manage and distribute photographic and video digital images in mass media communication. Students must provide own camera equipment.
Pre: MASS 221
Variable

MASS 360 (4) Digital Design for Mass Media
Practicum in typography, design, layout and production processes, including job budgeting and estimating, for newspapers, magazines, newsletters, brochures, posters, annual reports, direct mail and related print materials used in public relations and journalism. Emphasis on graphic design software.
Pre: MASS 221

MASS 398 (0) CPT: Co-Operative Experience
Curricular Practical Training: Co-Operative Experience is a zero-credit full-time practical training experience for one summer and an adjacent fall or spring term. Special rules apply to preserve full-time student status. Please contact an advisor in your program for complete information.
Pre: MASS 221. At least 60 credits earned; in good standing; instructor permission; co-op contract; other prerequisites may also apply.
Fall, Spring

MASS 411 (4) Mass Media Ethics and Criticism
Study, analysis and criticism of the mass media, their ethics and performance.
Pre: MASS 221
Fall, Spring

MASS 412 (4) Mass Media History
Survey of the social, cultural, intellectual and technological development of advertising, public relations and print, broadcast and electronic journalism in the United States. Open to non-major/minors.
Pre: MASS 221

MASS 431 (4) Freelancing for Mass Media
Marketing and writing of non-fiction articles for contemporary print and electronic magazines.
Pre: MASS 221

MASS 431W (4) Freelancing for Mass Media
Marketing and writing of non-fiction articles for contemporary print and electronic magazines.
Pre: MASS 221

MASS 434 (4) Public Relations Writing
Practical skill in the development of public relations writing including news releases, brochures, PSA’s, pitch letters, annual reports.
Pre: MASS 221

MASS 434W (4) Public Relations Writing
Practical skill in the development of public relations writing including news releases, brochures, PSA’s, pitch letters, annual reports.
Pre: MASS 221

MASS 436 (4) Specialized Writing
Techniques and practicum in writing of features, reviews, editorials, opinion columns and other specialized fields for print and electronic media.
Pre: MASS 221

MASS 436W (4) Specialized Writing
Techniques and practicum in writing of features, reviews, editorials, opinion columns and other specialized fields for print and electronic media.
Pre: MASS 221

MASS 450 (4) Strategic Communications Case Studies
Exploration of historic and contemporary examples of strategic public relations successes and failures. Analysis of public relations practices related to these cases, including planning, communication, evaluation exercises and management responsibilities.
Pre: MASS 233

MASS 498 (2-4) Mass Media Internship
Practical mass media experience in a professional setting.
Pre MASS 221, MASS 312, and MASS 411, plus two additional 300/400 level MASS courses, one of which must be MASS 325, MASS 330, MASS 334, MASS 431, MASS 434 or MASS 436
Fall, Spring

MASS 499 (1-2) Individual Study in Mass Media
Directed research on a mass media topic chosen by the student.
Pre: MASS 221
Fall, Spring
Mathematics
College of Science, Engineering & Technology
Department of Mathematics and Statistics
273 Wissink • 507-389-1453
Website: www.cset.mnsu.edu/dept/mathstat/

Chair: Charles Waters

Faculty: Francis T. Hannick, Jonathan Harper, In-Jae Kim, Namyong Lee, Hyekyung Min, Mezbahur Rahman, Brandon Rowekamp, Deepak Sanjel, Soo Yeon Shin, Dan Singer, Yea-Ling Tsao, Chia-Chi Tung, Hongxia Yin, Han Wu, Ruijun Zhao, Mark Zuiker

Mathematics in its purest form is an art concerned with ideas. The Department of Mathematics believes that an undergraduate major should be both an introduction to more advanced study and a survey of the many facets of mathematics. From the profound insights of Thales to the undecidability of Godel, from the intuitive to the rigorous, from the abstract to the applied, with a solid emphasis on both the discrete and the continuous cases, the department expects all majors to be engaged in a wide range of mathematical ideas.

Unlike many other disciplines, mathematics is a very structured subject. Consequently, the curriculum consists of sequences of interrelated courses which must be taken in the appropriate order. The department expects that the well prepared student will complete the mathematics major in four years.

The Department offers three mathematics majors and two minors. The primary focus of the B.S. Mathematics Teaching program is to prepare students to teach mathematics at the middle and secondary levels. The B.A. Mathematics and B.S. Mathematics programs are intended to prepare students for advanced study in mathematics or to work in business, industry, or government. The mathematics minor is intended for non-mathematics majors who desire a stronger background in mathematics. The Actuarial Science Minor combines finance, statistics, and mathematics to analyze risk and ensure financial security for individuals, corporations, and society at large.

POLICIES/INFORMATION

Admission to Major is required to enroll in 300 and 400 level courses. Admission is granted by the Department. Admission requirements are:
- A minimum of 32 earned semester credit hours and a 2.0 minimum cumulative GPA.
- Completion of 8 credits of mathematics in courses numbered MATH 121 or higher.
- A minimum 2.5 cumulative GPA in mathematics courses.

Contact the College of Science, Engineering and Technology Student Relations Office for application procedures.

Accelerated Combined Degree (BS and MA/MS) Program. Students intending to complete their Bachelor’s and Master’s degree at MSU may be granted permission to take classes that count toward their graduate program during their undergraduate studies. Admission to the program is conducted through the department. Upon being accepted, students will be assigned an advisor to aid in the design of an accelerated program of study (generally 5 years). Students must maintain a minimum 3.0 GPA overall and a 3.6 in major (as an undergraduate) to continue in the program. Please contact the Department Graduate Coordinator for detailed information.

Course Application Policy. Within each major or minor, no course may be applied to more than one requirement.

GPA Policy. Mathematics majors or minors must earn a grade of (“C”) or better in all courses applied to the major or minor.

P/N Grading Policy. Not more than one-fourth of the credits in mathematics courses numbered MATH 121 or above can be taken under P/N and applied to a major or minor. All 300 and 400 level courses are offered for grade only with the exception of MATH 487, MATH 498, and MATH 499, which are available for both P/N and letter grade.

Credit by Examination. Credit by examination will not be approved for courses in which a student has already received a grade.

Credit Limitations. A student may accumulate a maximum of six credits from MATH 110 and the College Level Examination Program (CLEP). After completing MATH 112 with a grade of “C” or better, a student may not receive credit for MATH 110, MATH 112, MATH 113, MATH 115, or MATH 180 without the consent of the department. Since the following courses have some common content, credit is not allowed for both MATH 115 and either MATH 112 or MATH 113. A student may not receive credit for MATH 354 or STAT 354 after completing MATH 455 or STAT 455.

Placement Information for Mathematics Course Enrollment. Students seeking enrollment in MATH 112: College Algebra, MATH 113: Trigonometry, MATH 115: Precalculus Mathematics, MATH 121: Calculus I, MATH 130: Finite Mathematics and Introductory Calculus, MATH 201: Elements of Mathematics I, or STAT 154: Elementary Statistics must demonstrate readiness to succeed in the course by satisfying the corresponding requirement in the table in this section.

<table>
<thead>
<tr>
<th>Course</th>
<th>Minimum ACT Math (if required)</th>
<th>Minimum ACCUPLACER Score</th>
<th>Minimum ACCUPLACER Score</th>
<th>Minimum ACCUPLACER Score</th>
<th>Minimum ACCUPLACER Score</th>
<th>Course Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 112</td>
<td>22</td>
<td>Or</td>
<td>76</td>
<td>AND</td>
<td>50</td>
<td>N/A Or Successful Completion of Math 098</td>
</tr>
<tr>
<td>MATH 113</td>
<td>22</td>
<td>Or</td>
<td>N/A</td>
<td>65</td>
<td>16</td>
<td>Or MATH 112 with “C” or better</td>
</tr>
<tr>
<td>MATH 115</td>
<td>23</td>
<td>Or</td>
<td>N/A</td>
<td>86</td>
<td>19</td>
<td>Or Math 098 and Permission from department</td>
</tr>
<tr>
<td>MATH 121</td>
<td>24</td>
<td>Or</td>
<td>N/A</td>
<td>105</td>
<td>22</td>
<td>Or MATH 112 or Both MATH 112 and 113 with “C” or better</td>
</tr>
<tr>
<td>MATH 130</td>
<td>23</td>
<td>Or</td>
<td>N/A</td>
<td>86</td>
<td>19</td>
<td>Or MATH 112 or 115 with “C” or better</td>
</tr>
<tr>
<td>MATH 201</td>
<td>22</td>
<td>Or</td>
<td>76</td>
<td>AND</td>
<td>50</td>
<td>N/A Or Successful completion of Math 098</td>
</tr>
<tr>
<td>STAT 154</td>
<td>19</td>
<td>Or</td>
<td>76</td>
<td>AND</td>
<td>50</td>
<td>N/A Or Successful completion of Math 098</td>
</tr>
</tbody>
</table>

NOTE 1: The Calculus Readiness test may be taken in addition to the ACCUPLACER instrument by students seeking to enroll in courses above MATH 112.

NOTE 2: Documented ACCUPLACER scores from any Minnesota State Colleges and Universities (MNSCU) institution taken within two calendar years will be accepted.

NOTE 3: ACT scores and ACCUPLACER scores that are more than two years old will not be accepted for mathematics placement.

Procedures. Students may substitute for the above requirements based on documentation of:
1. equivalent or higher scores on standardized college admissions tests, such as SAT quantitative scores, that report a separate mathematics sub-score within two calendar years;
2. successful completion of equivalent prior post-secondary education, such as course transfer evaluations or Cambridge International Examinations; or
3. enrollment exclusively in non-credit courses or programs. Students requesting such substitutions should submit the documentation to the Chair of the Department of Mathematics and Statistics for evaluation. The evaluation will be based on nationally accepted concordances between the testing instruments and/or courses. The Chair of the Department of Mathematics and Statistics or designee should respond in writing to student requests within three weeks of receiving them.

Procedure for Waiver.
1. Students not meeting the requirements for enrollment in MATH 112, MATH 201 or STAT 154 may request a waiver to this policy.
2. Written requests for waivers to the policy must be submitted to the Chair of the Department of Mathematics and Statistics, and should include evidence of alternate means of demonstrating readiness, including but not limited to:
   a. High school or recent post-secondary coursework which would indicate adequate preparation (transcripts or other records which include course titles, levels and grades are acceptable), or
   b. Verification of extenuating circumstances which may have affected performance on previous exams.
3. Requests for waivers should be submitted by the following deadlines:
   a. August 5th for fall semester enrollment,
   b. December 1st for spring semester enrollment, and
   c. May 1st for summer semester enrollment.
4. The Chair of the Department of Mathematics and Statistics or designee should respond in writing to student requests within three weeks of receiving them.
5. Students whose initial requests are denied may submit a written appeal to the Dean of the College of Science, Engineering and Technology. The Dean should respond in writing, with a copy to the Chair of the Department of Mathematics and Statistics.
6. The Dean’s decision is the final step in this appeal process.

Policy Rationale. The purpose of the policy is to place students in a course that is developmentally appropriate to help ensure their long term success. Data suggests students not meeting these guidelines have a higher likelihood of having to repeat a course.

New transfer students may base their course enrollment on achievement in previously completed pre-requisite courses in mathematics. For further information about placement and mathematics course pre-requisites, students may contact the Department of Mathematics and Statistics or the College’s Student Relations Coordinator.

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**MATH BA**

Degree completion = 120 credits

**Required General Education**

- MATH 121 Calculus I (4)

**Major Common Core**

- MATH 122 Calculus II (4)
- MATH 223 Calculus III (4)
- MATH 247 Linear Algebra I (4)
- MATH 290 Foundations of Mathematics (4)
- MATH 392 Mathematics Capstone Experience (3) OR MATH 492W Mathematics Capstone Experience (3)

**Major Restricted Electives**

(choose two from the following) (7-8 credits)

- MATH 316 Intermediate Analysis (3)
- MATH 345 Abstract Algebra I (4)
- MATH 375 Introduction to Discrete Mathematics (4)

**Major Unrestricted Electives**

(choose a minimum of 12 credits from the following; at least three (3) credits must be at the 400 level)

- MATH 316 Intermediate Analysis (3)
- MATH 321 Ordinary Differential Equations (4)
- MATH 328 Linear Optimization Methods (4)
- MATH 332 College Geometry (4)
- MATH 345 Abstract Algebra I (4)
- MATH 354 Concepts of Probability & Statistics (3)
- MATH 375 Introduction to Discrete Mathematics (4)
- MATH 392 Topology of Euclidean Spaces (4)
- MATH 411 Introduction to Complex Variables (4)
- MATH 417 Real Analysis I (4)
- MATH 418 Real Analysis II (3)
- MATH 422 Partial Differential Equations (4)
- MATH 425 Mathematical Modeling (4)
- MATH 435 Modern Geometry (4)
- MATH 442 Theory of Numbers (4)
- MATH 446 Abstract Algebra II (4)
- MATH 447 Linear Algebra II (3)
- MATH 455 Theory of Statistics I (4)
- MATH 456 Theory of Statistics II (4)
- MATH 470 Numerical Analysis I (4)
- MATH 471 Numerical Analysis II (4)
- MATH 480 History of Mathematics (3)

Required Minor. Yes. Any.

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**MATH BS**

Degree completion = 120 credits

**Required General Education**

- MATH 121 Calculus I (4)

**Major Common Core**

- MATH 122 Calculus II (4)
- MATH 223 Calculus III (4)
- MATH 247 Linear Algebra I (4)
- MATH 290 Foundations of Mathematics (4)
- MATH 492 Mathematics Capstone Experience (3) OR MATH 492W Mathematics Capstone Experience (3)

**Major Restricted Electives**

(choose two from the following) (7-8 credits)

- MATH 316 Intermediate Analysis (3)
- MATH 345 Abstract Algebra I (4)
- MATH 375 Introduction to Discrete Mathematics (4)

**Major Unrestricted Electives**

(choose a minimum of 12 credits from the following; at least three (3) credits must be at the 400 level)

- MATH 316 Intermediate Analysis (3)
- MATH 321 Ordinary Differential Equations (4)
- MATH 328 Linear Optimization Methods (4)
- MATH 332 College Geometry (4)
- MATH 345 Abstract Algebra I (4)
- MATH 354 Concepts of Probability & Statistics (3)
- MATH 375 Introduction to Discrete Mathematics (4)
- MATH 392 Topology of Euclidean Spaces (4)
- MATH 411 Introduction to Complex Variables (4)
- MATH 417 Real Analysis I (4)
- MATH 418 Real Analysis II (3)
- MATH 422 Partial Differential Equations (4)
- MATH 425 Mathematical Modeling (4)
- MATH 435 Modern Geometry (4)
- MATH 442 Theory of Numbers (4)
- MATH 446 Abstract Algebra II (4)
- MATH 447 Linear Algebra II (3)
- MATH 455 Theory of Statistics I (4)
- MATH 456 Theory of Statistics II (4)
- MATH 470 Numerical Analysis I (4)
- MATH 471 Numerical Analysis II (4)
- MATH 477 Topological Vector Spaces (4)
- MATH 480 History of Mathematics (3)

Required Minor. Yes. Any.
**MATH BS TEACHING**
Degree completion = 120 credits

**Required for General Education**
MATH 121 Calculus I (4)

**Major Common Core**
MATH 122 Calculus II (4)
MATH 223 Calculus III (4)
MATH 247 Linear Algebra I (4)
MATH 290 Foundations of Mathematics (4)
MATH 316 Intermediate Analysis (3)
MATH 332 College Geometry (4)
MATH 345 Abstract Algebra I (4)
MATH 354 Concepts of Probability and Statistics (3)
MATH 375 Introduction to Discrete Mathematics (4)
MATH 483 Advanced Viewpoint of 5-8 School Mathematics (3)
MATH 484 Technology in 5-12 School Mathematics (3)
MATH 485 Teaching Secondary School Mathematics (3)
MATH 492 Mathematics Capstone Experience (3) OR
MATH 492W Mathematics Capstone Experience (3)

**Other Graduation Requirements**
Professional Education, 30 credits. See the SECONDARY EDUCATION section for admission requirements to Professional Education and a list of required professional education courses.

**Required Minor: No.**

**MATH BA, BS MINOR**

**Required for Minor**
MATH 121 Calculus I (4)
MATH 122 Calculus II (4)
MATH 247 Linear Algebra I (4)

**Required for Minor (Electives, 7 credits)**
(choose 7 credits from any courses listed for the BA and BS major)

**ACTUARIAL MINOR**

**Minor Core**
Mathematics (choose 8 credits)
- MATH 121 Calculus I (4)
- MATH 122 Calculus II (4)

Statistics (choose 6-7 credits)
(Select 2 courses from the following)
- STAT 354 Concepts of Probability & Statistics (3)
- STAT 450 Regression Analysis (3)
- STAT 455 Theory of Statistics I (4)
- Finance (choose 6 credits)
- FINA 362 Business Finance (3)
- FINA 460 Investments (3)

**Elective**
Finance Electives (choose 3 credits)
- FINA 467 Insurance and Risk Management (3)
- FINA 480 Options and Futures (3)

**Recommended Courses**
Along with the above courses, the following courses satisfy aspects the VEE (Validation of Educational Experience) of the professional societies associated to actuarial science. Students taking these additional courses may apply them towards becoming certified in the three areas of the VEE: economics, applied statistical methods and corporate finance.
- ECON 201 Principles of Macroeconomics (3)
- ECON 202 Principles of Microeconomics (3)
- MATH 223 Calculus III (4)
- STAT 458 Categorical Data Analysis (3)

**COURSE DESCRIPTIONS**

**MATH 094 (4) Essential Mathematics with Elementary Algebra**
Basic mathematics skills integrating the fundamental operations of whole numbers, integers, fractions, decimals, percents, ratio and proportion with the elementary algebra topics of linear equations and inequalities, graphs, exponents, polynomials and factoring. Credit does not apply toward graduation.
P/N only.
Summer

**MATH 098 (4) Intermediate Algebra**
Topics covered include intermediate study of graphs, systems of linear equations, introduction to functions, linear and nonlinear inequalities, factoring, rational expressions and equations, radicals, and basic quadratic equations. Credit does not apply toward graduation.
P/N only
Fall, Spring, Summer

**MATH 110 (3) Perspectives in Mathematics**
A survey of mathematics and its relationship to society, showing its development and evolution to meet the needs of humankind.
Pre: Three years high school algebra/geometry or MATH 098
Fall, Spring, Summer
GE-4

**MATH 112 (4) College Algebra**
Concepts of algebra (real numbers, exponents, polynomials, rational expressions), equations and inequalities, functions and graphs, polynomial and rational functions, exponential and logarithmic functions, systems of equations and inequalities, matrices and determinants, conic sections, sequences and series, probability, and binomial theorem.
Pre: See chart in this section, or successful completion of Math 098.
Fall, Spring, Summer
GE-4

**MATH 113 (3) Trigonometry**
Basic concepts of trigonometry as preparation for college level mathematics and science course work. Topics include concepts of algebra (real numbers, functions, graphs of functions, exponential and logarithmic functions), trigonometric functions, analytic trigonometry, applications of trigonometry, and analytic geometry.
Pre: See chart in this section, or MATH 112 with “C” (2.0) or better
Fall, Spring, Summer
GE-4

**MATH 115 (4) Precalculus Mathematics**
This course will cover topics of precalculus mathematics. Topics covered will include functions, graphs of functions, exponential and logarithmic functions, conic sections, systems of equations, and inequalities, matrices, trigonometric functions, circular functions, vectors and complex numbers, induction, series, and probability.
Pre: See chart in this section, must successfully complete Math 098 and receive permission from the department chair.
Fall, Spring
GE-4

**MATH 121 (4) Calculus I**
Limits, continuity, the derivative and applications, and the integral and applications.
Pre: MATH 115 or both MATH 112 and MATH 113 with “C” (2.0) or see chart in this section.
Fall, Spring, Summer
GE-4

**MATH 122 (4) Calculus II**
Transcendental functions, L’Hopital’s rule, techniques of integration, sequences and series, parametric equations and polar coordinates, and vectors in two and three dimensions.
Pre: MATH 121 with “C” (2.0) or better or consent
Fall, Spring, Summer
MATH 127 (2) Calculus II for Engineering Technology: Integration
A continuation of the study of calculus from MATH 121 including transcendental
functions, L'Hospital's rule, techniques of integration, and vectors in two and
three dimensions. Content is intended for students enrolled in any engineering
technology program. Credit for both MATH 127 and MATH 122 is not allowed.
Pre: MATH 121 with “C” (2.0) or better or consent
Fall

MATH 128 (2) Calculus II for Engineering Technology: Infinite Series
A continuation of the study of calculus from MATH 127 including infinite series,
parametric equations, and polar coordinates. Content is intended for students
enrolled in any engineering technology program. Credit for both MATH 128
and MATH 122 is not allowed.
Pre: MATH 127 with “C” (2.0) or better or consent
Variable

MATH 130 (4) Finite Mathematics and Introductory Calculus
This course develops concepts and skills in algebra and introductory calculus
needed to model applications in business, economics, social sciences and life
sciences, using polynomials, exponentials, logarithms, linear systems, linear
programming, sequences, series, derivatives and integrals.
Pre: Knowledge of college algebra including exponentials and logarithms.
Satisfy one of the following three conditions: (1) Pass MATH 112 or MATH
115 with grade of “C” (2.0) or better; (2) have an ACT Math Subscore of 23 or
better; or (3) Score 86 or better on the College Level Math Test, or score 19 or
better on the Calculus Readiness Test.
Fall, Spring, Summer
GE-4

MATH 170 (3) Introduction to Mathematical Software Programming
Students will learn the rudiments of algorithmic processes such as iteration and
recursion and implement simple mathematical algorithms in a commonly used
mathematical software package. Applications may include graphing, equation
solving, numerical approximation, recurrence relations, and generation of math-
ematical objects such as sets, lists, permutations and trees.
Pre: MATH 121
Fall (On-Demand), Spring (On-Demand)

MATH 180 (4) Mathematics for Computer Science
This course is an introduction to the mathematical concepts needed in computer
science, including sets, logic, representations of numbers, counting techniques,
discrete functions, matrices, trees and graphs, and algorithm analysis.
Pre: MATH 112 or equivalent, with “C” (2.0) or better, or consent
Spring
GE-4

MATH 181 (3) Intuitive Calculus
This course presents the concepts of the differential and integral calculus from an
intuitive (non-theoretical) point of view. The course emphasis is on the applica-
tions of the calculus. Credit for both MATH 181 and MATH 121 is not allowed.
Pre: MATH 112 with “C” (2.0) or better or consent
Fall
GE-4

MATH 201 (3) Elements of Mathematics I
Nature of mathematics from a problem solving approach using sets, relations,
number systems through integers, rational numbers and discrete mathematics.
Pre: See chart in this section, or successful completion of MATH 098.
Fall, Spring
GE-4

MATH 202 (3) Elements of Mathematics II
A continuation of MATH 201, including rational and real number systems,
informal geometry and measurement, statistics, and probability.
Pre: MATH 201, with “C” (2.0) or better or consent
Fall, Spring

MATH 203 (3) Elements of Math III
Transformational and Euclidean geometry, coordinate geometry and applications
of discrete mathematics.
Pre: MATH 202 with “C” (2.0) or better or consent
Spring

MATH 223 (4) Calculus III
Surfaces, vector-valued functions, partial differentiation, multiple integration,
and vector calculus.
Pre: MATH 122 with “C” (2.0) or better, or consent
Fall, Spring

MATH 247 (4) Linear Algebra I
Matrices, determinants, systems of linear equations, vector spaces, linear trans-
formations, and characteristic value problems.
Pre: MATH 122 with “C” (2.0) or better or consent
Fall, Spring, Summer

MATH 290 (4) Foundations of Mathematics
Logic, proof techniques, set theory, relations, functions, cardinality, operations,
and an introduction to mathematical structures and number theory.
Pre: MATH 122
Fall, Spring
GE-2

MATH 293 (1) MAX Scholar Seminar
This class provides MAX scholars with an opportunity to explore a set of top-
ics related to achieving success in academic, professional and personal realms.
Speakers will include faculty, graduate students, visiting researchers and industry
members as well as student participants. Cannot be used towards a math major.
Pre: Recipient of a MAX scholarship or instructor consent.
Fall, Spring

MATH 316 (3) Intermediate Analysis
Limits, sequences, continuity, and differentiation of a real valued function of
a real variable.
Pre: MATH 223 and MATH 290 with “C” (2.0) or better or consent
Spring

MATH 321 (4) Ordinary Differential Equations
This course presents the theory, computations, and applications of first and second
order differential equations and two-dimensional systems.
Pre: MATH 122 with “C” (2.0) or better or consent
Fall, Spring, Summer

MATH 328 (4) Linear Optimization Methods
Simplex method and its variants, duality, sensitivity analysis, interior-point meth-
ods, quadratic programming and linear complementarity problems. Applications
such as classification problems and game theory with linear optimization software.
Pre: MATH 122, MATH 247
Variable

MATH 332 (4) College Geometry
This course covers several geometric systems including Euclidean, non-Euclide-
an, transformational and projective. Other topics studied are topological properties
and the relationship between coordinate and synthetic geometry.
Pre: MATH 290 with “C” (2.0) or better or consent
Fall

MATH 345 (4) Abstract Algebra I
An introduction to the theory of groups and rings; including polynomial rings,
homomorphisms, isomorphisms, and concepts of normal subgroups, ideals,
quotient groups, and quotient rings.
Pre: MATH 290 with “C” (2.0) or better or consent
Fall

MATH 354 (3) Concepts of Probability & Statistics
This is a calculus-based course covering introductory level topics of probability
and statistics. It is designed to meet the needs of both the practitioner and the
person who plans further in-depth study. Topics include probability, random
variables and probability distributions, joint probability distributions, statistical
inference (both estimation and hypothesis testing), analysis of variance, regres-
sion, and correlation. Same as STAT 354.
Pre: MATH 122 with “C” (2.0) or better or consent
Fall, Spring, Summer
MATH 375 (4) Introduction to Discrete Mathematics
An introduction to the concepts fundamental to the analysis of algorithms and their realization. Topics will include combinatorics, generating functions, recurrence relations, graph theory, and networks.
Pre: MATH 247 with “C” (2.0) or better or consent
Fall, Spring

MATH 392 (4) Topology of Euclidean Spaces
Metric spaces, topology of metric spaces, continuity, compactness in metric spaces, and Euclidean n-space.
Pre: MATH 290 with “C” (2.0) or better or consent

MATH 398 (0) CPT: Co-Operative Experience
Curricular Practical Training: Co-Operative Experience is a zero-credit full-time practical training experience for one summer and on adjacent fall or spring term. Special rules apply to preserve full-time student status. Please contact an advisor in your program for complete information.
Pre: At least 60 credits earned; in good standing; instructor permission; co-op contract; other pre-requisites may also apply.
Fall, Spring, Summer

MATH 411 (4) Introduction to Complex Variables
Algebra and geometry of complex numbers, analytic functions, power series, Cauchy’s theorem and residue theorem.
Pre: MATH 223 and MATH 290 with “C” (2.0) or better or consent
Spring (Odd Years)

MATH 417 (4) Real Analysis I
The topology of Euclidean spaces, norms, classical inequalities, local and global properties of continuous functions, preservation of compactness and connectedness, sequences in Euclidean space and sequences of functions.
Pre: MATH 223 and MATH 290 with “C” (2.0) or better or consent
Fall

MATH 418 (3) Real Analysis II
A continuation of MATH 417. The course may include topics from metric spaces, Riemann-Stieltjes integration, differentiation in Euclidean space, sequences and series of functions, approximation theorems, implicit and inverse function theorems, equicontinuity, and mapping theorems.
Pre: MATH 417 with “C” (2.0) or better or consent

MATH 422 (4) Partial Differential Equations
This course presents the theory, computations, and applications of partial differential equations and Fourier series.
Pre: MATH 223 and MATH 321 with “C” (2.0) or better or consent
Spring (Even Years)

MATH 425 (4) Mathematical Modeling
This course presents topics from mathematical analysis of both discrete and continuous models taken from problems in the natural sciences, economics and resource management.
Pre: MATH 223 and MATH 247 with “C” (2.0) or better or consent
Spring (Odd Years)

MATH 435 (4) Modern Geometry
Geometry of spaces including Euclidean and non-Euclidean and applications of contemporary geometry.
Pre: MATH 332 with “C” (2.0) or better or consent
Fall (On-Demand), Spring (On-Demand), Summer (On-Demand)

MATH 442 (4) Theory of Numbers
Euclidean algorithm, primes, composites, number theoretic functions, congruencies, Diophantine equations, Euler and Fermat theorems, algebraic number fields.
Pre: MATH 345 with “C” (2.0) or better or consent

MATH 446 (4) Abstract Algebra II
A continuation of MATH 345. The course will include topics from groups, rings, and fields.
Pre: MATH 345 with “C” (2.0) or better or consent
Fall (On-Demand), Spring (On-Demand), Summer (On-Demand)

MATH 447 (3) Linear Algebra II
An in-depth study of linear operators and their related spaces, dimension, rank, matrix representation of linear operators, special matrices, determinants, eigenvectors and eigenvalues.
Pre: MATH 345 with “C” (2.0) or better or consent
Spring

MATH 455 (4) Theory of Statistics I
A mathematical approach to statistics with derivation of theoretical results and of basic techniques used in applications. Includes probability, continuous probability distributions, multivariate distributions, functions of random variables, central limit theorem and statistical inference. Same as STAT 455.
Pre: MATH 223 with “C” (2.0) or better or consent
Fall

MATH 456 (4) Theory of Statistics II
A mathematical approach to statistics with derivation of theoretical results and of basic techniques used in applications, including sufficient statistics, additional statistical inference, theory of statistical tests, inferences about normal models and nonparametric methods. Same as STAT 456.
Pre: MATH 455 / STAT 455 with “C” (2.0) or better or consent
Spring

MATH 460 (3) Actuarial Applications in Probability
This course applies probabilistic methods to problems encountered in actuarial science that prepares students for the Society of Actuaries Exam P/1.
Pre: MATH 354, STAT 354 and MATH 223 or MATH 455, STAT 455
Fall (On-Demand), Spring (On-Demand), Summer (On-Demand)

MATH 461 (4) Mathematical Theory of Interest
This course covers the theory of interest portion of Exam FM/2 of the Society of Actuaries. Topics include time value of money, measurement of interest, annuities certain, arithmetic and geometric annuities, amortization schedules and sinking fund, bonds and other securities, yield rates, and interest rate immunization.
Pre: MATH 223
Fall (On-Demand), Spring (On-Demand), Summer (On-Demand)

MATH 470 (4) Numerical Analysis I
This course provides an introduction to techniques and analysis involved with solving mathematical problems using technology. Topics included are errors in computation, solutions of linear and nonlinear equations, numerical differentiation and integration, and interpolation.
Pre: MATH 122, MATH 247 with “C” (2.0) or better or consent
Fall

MATH 471 (4) Numerical Analysis II
This course is a continuation of MATH 470. Topics included are the algebraic eigenvalue problem, least squares approximation, solutions of systems of nonlinear equations, numerical solutions of ordinary differential equations.
Pre: MATH 470 and MATH 223 with “C” (2.0) or better or consent

MATH 480 (3) History of Mathematics
The development of selected topics from before the Hellenistic time period to the late twentieth century. Familiarity with the content of HIST 180W is beneficial.
Pre: MATH 345 with “C” (2.0) or better or consent
Spring (Odd Years)

MATH 483 (3) Advanced Viewpoint of 5-8 School Mathematics
Advanced viewpoint of mathematics content and learning theories, teaching strategies, reading strategies, assessments, and planning, teaching and reflecting on grades 5-8 mathematics. Field experiences in grades 5-8 mathematics classroom required.
Pre: MATH 290 with “C” (2.0) or better or consent
Spring

MATH 484 (3) Technology in 5-12 School Mathematics
Numerical, verbal, symbolic and graphical representations of quantitative relationships, concatenations in written mathematics, problem solving, dynamic geometry, perspective drawing, parametric equations, geometric probability, transition matrices, statistics and calculus using technology.
Pre: MATH 290 with “C” (2.0) or better or consent
Fall
MATH 485 (3) Teaching Secondary School Mathematics
Learning theories, teaching strategies, assessments and planning, teaching and reflecting on secondary (grades 9-12) school mathematics. Field experiences in grades 9-12 mathematics classroom required.
Pre: MATH 290 with “C” (2.0) or better or consent Fall

MATH 487 (1) Teaching Experiences in Mathematics
Student will work with an experienced member of the faculty in teaching a college mathematics course.

MATH 488 (1-3) Seminar
A course of study in which a group of students study a topic by examining results through reports and discussions. May be repeated for credit on each new topic.

MATH 490 (1-4) Workshop
A short course devoted to a specific mathematical topic. May be repeated for credit on each new topic.

MATH 491 (1-4) In-Service
A course designed to upgrade the qualifications of persons on-the-job. May be repeated for credit on each new topic.

MATH 492 (3) Mathematics Capstone Experience
This course is designed to allow undergraduate students an opportunity to integrate their undergraduate mathematics experiences by engaging each student in working on a problem in applied or theoretical mathematics. Content will vary by semester. Because of the breadth of mathematics topics needed for successful completion of the course, students need to have senior standing.
Pre: Two of the following: MATH 316, MATH 345, MATH 375 and senior standing (or permission of the instructor). Course also can be taken as an independent study with permission of a cooperating faculty member.
Fall (On-Demand), Spring (On-Demand), Summer (On-Demand)

MATH 498 (1-4) Internship
Provides a student the opportunity to gain expertise and experience in a special field under the supervision of a qualified person.

MATH 499 (1-4) Individual Study
Independent individual study under the guidance and direction of a faculty member in mathematics. Special arrangements must be made with an appropriate faculty member. May be repeated for credit on each new topic.

MATH 492W (3) Mathematics Capstone Experience
This course is designed to allow undergraduate students an opportunity to integrate their undergraduate mathematics experiences by engaging each student in working on a problem in applied or theoretical mathematics. Content will vary by semester. Because of the breadth of mathematics topics needed for successful completion of the course, students need to have senior standing.
Pre: Two of the following: MATH 316, MATH 345, MATH 375 and senior standing (or permission of the instructor). Course also can be taken as an independent study with permission of a cooperating faculty member.
Fall (On-Demand), Spring (On-Demand), Summer (On-Demand)

MATH 493 (1) MAX Scholar Seminar
This class provides MAX scholars with an opportunity to explore a set of topics related to achieving success in academic, professional and personal realms. Speakers will include faculty, graduate students, visiting researchers and industry members as well as student participants. Students will be required to participate in mentoring of lower division MAX scholarship recipients and provide written and oral presentations of various topics during the semester.
Pre: Recipient of a MAX scholarship or instructor consent Fall, Spring

MATH 495 (1-4) Selected Topics
A course in an area of mathematics not regularly offered. May be repeated for credit on each new topic.

MATH 498 (1-12) Internship
Provides a student the opportunity to gain expertise and experience in a special field under the supervision of a qualified person.

MECHANICAL ENGINEERING

Mechanical Engineering
College of Science, Engineering & Technology
Department of Mechanical and Civil Engineering
205 Trahon Science Center E • 507-389-6383
Fax: 507-389-5002
Website: me.mnsu.edu

Chair: Patrick Tebbe, Ph.D., P.E.

Faculty: Aaron S. Budge, Ph.D., P.E.; Shaobiao Cai, Ph.D.; Stephen J. Druschel, Ph.D., P.E.; Charles W. Johnson, Ph.D., P.E.; Sungwon Kim, Ph.D.; Saeed Moaveni, Ph.D., P.E.; Vojin Nikolic, Ph.D.; Deborah K. Nykanen, Ph.D., P.E.; Jin Park, Ph.D., P.E.; Farhad Reza, Ph.D., P.E.; Patrick A. Tebbe, Ph.D., P.E.; W. James Wilde, Ph.D., P.E.

Accreditation. The Mechanical Engineering program is accredited by the Engineering Accreditation Commission of ABET, www.ABET.org

Mechanical Engineering (ME) is essential to a wide range of activities that include the research, design, development, manufacture, management, and control of engineering systems, subsystems, and their components. Mechanical engineers use the fundamentals of engineering mechanics, energy, thermal-fluid sciences, and material sciences to design and analyze mechanical systems that perform useful tasks required by society. For example, mechanical engineers work with the design and function of machines, devices, and structures in the areas of manufacturing, processing, power generation, and transportation (air, land, sea, and space). As a result of a rapidly expanding technology in recent years, mechanical engineers have become more versed in computer-aided design; robotics; bioengineering; environmental engineering; solar, wind, and ocean energy sources; and space exploration. The breadth of the field provides the graduate with many possibilities for a satisfying career.

Typically, mechanical engineers are employed by the manufacturing, power, aerospace, automotive, computer hardware and software, and processing industries. Careers are also available in design and development organizations as well as in many federal and state agencies.

Program Objectives. The Mission of the Mechanical Engineering program at Minnesota State Mankato is to provide a broad-based education that will enable graduates to enter practice in the mechanical engineering profession, serving the needs of the State of Minnesota and the Nation.

Within 3-6 years of graduation, graduates of the mechanical engineering program at Minnesota State University, Mankato are expected to contribute to the profession and to society as a whole by achieving a combination of the following milestones.

1. Based on their strong technical foundation in mechanical engineering, they have advanced professionally to increased levels of responsibility, have successfully transitioned into business or management, or have successfully completed an advanced degree.
2. They have demonstrated an ability to communicate technical information through internal and external technical reports or proposals, patent applications, published papers and articles, or conference presentations.
3. They have participated in, or served as an officer of, a local, regional, or national professional engineering society, standards committee, or state/local board.
4. They have participated in continuing education or pursued additional industry certification.
5. They have become a registered professional engineer.

The program mission and educational objectives are fully compatible with the mission of Minnesota State Mankato and the College of Science, Engineering, and Technology. Program objectives are monitored by the constituencies (mechanical engineering profession through the program’s Industrial Advisory Board and employers, alumni, students, and faculty of the program).
Other important features of the mechanical engineering program at Minnesota State Mankato include the following:

- Students are required to take the Fundamentals of Engineering exam in their senior year - a precursor to professional registration.
- Students are encouraged to work in engineering related areas for exposure to industrial practice. Internships are strongly recommended.
- Senior students must participate in a full academic year design experience working in a team similar to development teams in industry and government. Industrial sponsored projects are offered when available.

**Preparation.** Recommended high school preparation is one year each of precalculus (or equivalent), physics and chemistry. Engineering drafting and a computer language are also recommended. Without this background it may take longer than four years to earn the degree.

**POLICIES/INFORMATION**

**Program Admission.** Admission to the Mechanical Engineering Program is granted by the department, and is necessary before enrolling in 300- and 400-level courses. Near the end of the sophomore year, students must submit an application for admission to the mechanical engineering program. Applications to the program may be obtained from the Department of Mechanical and Civil Engineering or downloaded from the department homepage.

Before being admitted to upper division mechanical engineering courses, a student must complete a minimum of 48 credits, for grade, including the following courses applicable to the degree: General Physics (calculus based) 8 credits; Calculus and Differential Equations 16 credits; Introduction to Engineering 2 credits; Computer Graphics Communication 1 credit; Geometric Dimensioning and Tolerancing in Engineering Design 2 credits; Introduction to Problem Solving and Engineering Design 2 credits; Engineering Mechanics (Statics and Dynamics) 6 credits; Electrical Engineering (Circuits, including lab) 4 credits; Chemistry 3 credits; and English Composition 4 credits.

To be admitted to the mechanical engineering program, a student must earn a grade of “C” (2.00) or better and a cumulative GPA of 2.50 in the courses listed above. All core course grades (including those for repeated courses) will be considered in the computation of the GPA for admission to the program. Provisional admission to the program for one semester may be granted in limited cases.

All admitted students are required to take a department-administered diagnostic test early in their junior year.

**Transfer Students.** The department makes a special effort to accommodate transfer students. Transfer students are encouraged to contact the department as soon as possible to facilitate a smooth transition. Generally, no transfer credits are allowed for upper division mechanical engineering courses. Transfer students must complete a minimum of 12 credits at Minnesota State Mankato prior to being considered for full admission to the program.

**Satisfactory Progress.** Once admitted to the mechanical engineering program, a student must demonstrate satisfactory progress by maintaining a cumulative GPA of at least 2.30 in all upper-division engineering courses (including repeated courses).

**P/N Grading Policy.** P/N credit is not allowed for any course used to meet mechanical engineering degree requirements.

**Probation Policy.** An admitted student who does not maintain satisfactory progress as defined above will be placed on program probationary status for a maximum of one semester. During the probationary period, the student must complete at least 8 credits, approved by the department, of upper division engineering courses for grade from the prescribed Mechanical Engineering curriculum. Students may not receive a degree without first conforming to the satisfactory progress criteria. A student who fails to meet satisfactory progress for a second semester (consecutive or non-consecutive) will not be allowed to continue in the program.

**Appeals.** A student may appeal any departmental decision in writing. The department will consider such appeals individually.
MECHANICAL ENGINEERING CONTINUED

Major Restricted Electives
Consult with your advisor for selection of mechanical engineering electives.

Mechanical Engineering Electives (choose 6 credits)

Science Electives (choose 4 credits)

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<th>General Biology I (4)</th>
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<td>BIOL</td>
<td>105W</td>
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Required Minor: None.

COURSE DESCRIPTIONS

ME 100 (1) Explorations in Engineering
This course offers an introduction to the various disciplines of engineering and their relationship to the principles of physics and mathematics. Students are prepared for academic success and the transition into an engineering program.
Fall
GE-12

ME 101 (2) Introduction to Engineering - Mechanical
To prepare students for a career in engineering with emphasis on mechanical; introduce the engineering fundamentals and the skills necessary to have a successful learning experience; and to prepare students for engineering education and profession through interactions with upper-class engineering students and practitioners.
Pre: MATH 113 or MATH 115 or MATH 121

ME 102 (1) Introduction to Engineering II
A continuation of ME 101 covering historical and global perspectives, engineering discipline and functions, professional aspects of engineering, ethical aspects of engineering, creativity and innovation, basics of personal computers--word processing and spreadsheets, introduction to problem solving. Variable

ME 103 (1) Computer Graphics Communication
Standards of graphics communication. Orthographic projections, dimensioning, tolerancing, section views. Extensive use of modern software to create engineering drawings. Introduction to solid modeling of parts and assemblies. This course includes laboratory component.

ME 201 (2) Introduction to Problem Solving and Engineering Design
This course has two main parts. Part one covers problem solving and fundamentals of programming including data types, decision making, repetitive loops, and arrays. Engineering applications requiring programming are included. Part two covers engineering design philosophy and methodology, communication skills, and teamwork. A design project is also included.
Pre: ME 101
Coreq: ME 103, MATH 121
Fall, Spring

ME 206 (3) Materials Science
Coreq: ME 223
Fall

ME 212 (3) Statics
Results of force systems, equilibrium, analysis of forces acting on structural and machine elements, friction, second moments, virtual work.
Pre: PHYS 221
Fall, Spring

ME 214 (3) Dynamics
Kinematics and kinetics of particles, systems of particles and rigid bodies, work-energy, linear and angular impulse momentum, vibrations.
Pre: ME 212
Fall, Spring

ME 223 (3) Mechanics of Materials
Load deformation, stress, strain, stress-strain relationship, buckling, energy concepts, stress analysis of structural and machine elements.
Pre: ME 212
Fall, Spring

ME 241 (3) Thermodynamics
Fundamental concepts of thermodynamics. Thermal properties of substances and state equations. Conservation of mass, first and second laws. Examples of applications to different engineering systems.
Pre: PHYS 221
Fall

ME 293 (1) MAX Scholar Seminar
This class provides MAX scholars with an opportunity to explore a set of topics related to achieving success in academic, professional and personal realms. Speakers will include faculty, graduate students, visiting researchers and industry members as well as student participants. Students will be required to participate in mentoring of lower division MAX scholarship recipients and provide written and oral presentations of various topics during the semester. This course may be repeated and will not count towards graduation requirements.
Pre: Recipient of a MAX scholarship or instructor consent.
Fall, Spring

ME 299 (2) Thermal Analysis
Basic principles of thermodynamics, fluid mechanics, and heat transfer. First and second laws of thermodynamics and application to engineering systems and their design. Not for mechanical engineering major.
Pre: PHYS 221, MATH 321
Spring

ME 321 (3) Fluid Mechanics
Introduction to fluid flow, fluid properties, fluid statics, the integral and differential approach to basic flow equations. Bernoulli’s equation, similitude and dimensional analysis, viscous internal and external flows, one dimensional compressible flow.
Pre: ME 214
Coreq: ME 241 or ME 299
Fall

ME 324 (3) Heat Transfer
Pre: ME 241, ME 321
Spring

ME 329 (3) Applied Thermodynamics
Energy analysis and design of thermodynamic systems including power and refrigeration cycles. Thermodynamic relations. Application of thermodynamics to mixtures and solutions. Psychrometrics. Introduction to chemical thermodynamics. Third law of thermodynamics. Includes significant design component.
Pre: ME 241
Spring
ME 333 (3) Manufacturing Processes
Introduction to manufacturing, tribology, casting, bulk deformation, sheet metal forming, material removal, joining, polymers, powder metals, ceramics, automation, integrated systems. Design for manufacture. Includes significant design component.
Pre: ME 206, ME 223
Spring

ME 336 (2) Mechanical Engineering Experimentation I
Experiments in Mechanical Engineering, load-deformation, load-failure, fatigue, impact, hardness. Introduction to traditional machining and material processing. This course includes laboratory.
Coreq: ME 333
Spring

ME 341 (3) Linear Systems
Analysis of linear systems in the time and frequency domains. Physical systems modeled and analyzed using time domain techniques. Fourier and Laplace Transforms.
Pre: ME 291
Fall

ME 398 (0) CPT: Co-Operative Experience
Curricular Practical Training: Co-Operative Experience is a zero-credit full-time practical training experience for one summer and on adjacent fall or spring term. Special rules apply to preserve full-time student status. Please contact an advisor in your program for complete information.
Pre: ME 201. At least 60 credits earned; in good standing; instructor permission; co-op contract; other pre-requisites may also apply.
Fall, Spring, Summer

ME 415 (3) Structural Analysis
Minimum design loads for buildings using ASCE 7 guidelines and load distribution. Analysis of determinate structural systems including the case of moving loads. Analysis of indeterminate structures using the flexibility and moment distribution methods. Use of software to enhance the analysis.
Pre: ME 223
Fall

ME 416 (3) Thermal/Fluid Systems Design
The application of the principles of thermodynamics, fluid mechanics, and heat transfer to the design and analysis of selected energy systems of current interest, such as nuclear, solar, geothermal, and also conventional systems. Lecture and design projects.
Pre: ME 324, ME 329
Variable

ME 417 (3) Design of Machine Elements
Application of principles of mechanics to the design of various machine elements such as gears, bearings, springs, rivets, welding. Stresses in mechanical elements. Design factors, fatigue, manufacturability. Lectures and design projects.
Pre: ME 214, ME 223
Spring

ME 418 (3) Mechanical Systems Design
The application of mechanics to the design and analysis of motion and force transmitting systems. Optimum design. Includes significant design component.
Pre: ME 417
Variable

ME 420 (3) Computer Aided Engineering
This course provides the students with sound understanding of both solid modeling techniques and finite element analysis. It covers the major features as well as feature manipulation techniques. It also provides a background in deriving, understanding and applying the stiffness matrices and finite element equations for various types of finite elements and systems. Static stress analyses, sensitivity studies and optimization studies are covered. Includes significant design component.
Pre: ME 417, ME 324
Coreq: Senior standing in ME.
Fall

ME 422 (3) Mechanics of Composite Materials
Introduce anisotropic mechanics theories, engineering application of various composite materials, mechanical behaviors and fabrication of composites, experimental and theoretical approach for composite designs, contemporary issues such as nano/microcomposites. Includes significant design component.
Pre: ME 223

ME 424 (3) Analysis and Design of Heat Transfer Equipment
Analysis of heat and mass flow, design of heat exchangers and accompanying piping system. Methods of heat transfer enhancement, heat pipes. Includes significant design component.
Pre: ME 324
Variable

ME 426 (3) Aerosol Theory and Technology
Introduction to the theory of aerosols and particulate systems. Properties, behavior, and physical principles of aerosols; including particle size statistics, Brownian motion and diffusion, and coagulation. Application in areas such as environmental systems, respiratory deposition, bioterrorism, and materials processing.

ME 428 (3) Design Project I
The first course in a two semester sequence that provides a complete design experience under professional guidance. The course covers: the product realization process, financial analysis, quality, patents, ethics and case studies. The students initiate a design project early in the semester to be completed in ME 438W. Pre: ME 324, ME 329, ME 333, ME 336, ME 341, ME 417
Fall

ME 429 (3) Energy Conversion
Methods of energy conversion. Topics may include hydroelectric, geothermal, wind and solar power generation, as well as unconventional methods of energy conversion. Term design problems.
Pre: ME 324, ME 329
Variable

ME 436W (2) Mechanical Engineering Experimentation II
Experimental and analytical studies of phenomena and performance of fluid flow, heat transfer, thermodynamics, refrigeration and mechanical power systems. This course includes laboratory component. Extensive writing component.
Pre: ME 291, ME 324, ME 329
Fall, Spring, Summer

ME 438W (3) Design Project II
The second course of a two semester sequence providing a complete design experience and introduction to professional practice. This course includes: completion of the design project, design presentations, and the final design report. Students will prepare for and complete the Fundamentals of Engineering exam.
Pre: ME 428
Spring

ME 439 (3) Air Conditioning & Refrigeration
Refrigeration cycles and equipment, refrigerant properties, heating and cooling loads, psychometric analysis of air conditioning. Distribution of air conditioning medium and air quality as applied to design. Includes significant design component.
Pre: ME 324, ME 329
Variable

ME 447 (3) Design of Machine Elements II
Application of principles of mechanics of materials and of material failure theories to the design and analysis of shafts, journal bearings, helical, bevel and worm gears, clutches, brakes, couplings, and flexible mechanical elements. Statistical consideration.
Pre: ME 417
Spring

ME 450 (3) Finite Element Method
Energy and residual methods, 2D and 3D problems in stress analysis. Application of steady and transient heat flow, hydrodynamics, creeping flow. Includes significant design component.
Pre: ME 223 and ME 324 or instructor consent
Variable
ME 463 (3) Automatic Controls
Analysis of control systems using the methods of Evans, Nyquist and Bode. Improvement of system performance by feedback compensation. Introduction to digital control. Includes significant design component.
Pre: ME 341
Fall

ME 464 (3) Mechatronics
Synergistic combination of mechanical engineering, electronics, controls and programming in the design of mechatronic systems. Sensors, actuators and microcontrollers. Survey of the contemporary use of embedded microcontrollers in mechanical systems, case studies. Includes significant design component.
Pre: ME 417, ME 463
Spring

ME 466 (2) Mechanical Engineering Experimentation III
Experiments in vibrations: Motion measurement, force measurement, free vibration, frequency response, impact response, noise, signal processing. Experiments in control: system modelling and characterization in the time and frequency domains, feedback and compensation, PID control, control of velocity and position. This course includes laboratory. Extensive writing component.
Pre: ME 463
Spring

ME 466W (2) Mechanical Engineering Experimentation III
Experiments in vibrations: Motion measurement, force measurement, free vibration, frequency response, impact response, noise, signal processing. Experiments in control: system modelling and characterization in the time and frequency domains, feedback and compensation, PID control, control of velocity and position. This course includes laboratory. Extensive writing component.
Pre: ME 463
Spring

ME 491 (1-4) In-Service
Variable

ME 492 (1) Mechanical Engineering Seminar
To acquaint students with various engineering careers, various industries, and various societal and ethical problems.
Pre: Senior standing in Mechanical Engineering
Coreq: ME 428
Spring

ME 493 (1) MAX Scholar Seminar
This class provides MAX scholars with an opportunity to explore a set of topics related to achieving success in academic, professional, and personal realms. Speakers will include faculty, graduate students, visiting researchers and industry members as well as student participants. Students will be required to participate in mentoring of lower division MAX scholarship recipients and provide written and oral presentations of various topics during the semester. This course may be repeated and will not count towards graduation requirements.
Pre: Recipient of a MAX scholarship or instructor consent.
Fall, Spring

ME 494 (1) Global Experience in Engineering and Technology
This class provides students pursuing a minor in “Global Solutions in Engineering and Technology” with an opportunity to explore a set of topics related to achieving success in advance of and following an international experience (internship, study abroad, etc.). Speakers will include faculty, graduate students, visiting researchers and industry members as well as student participants. Returning students will be required to participate in mentoring of students preparing for their international experience and provide written and/or oral presentations of various topics during the semester. This course is required both before and after participation in the international experience (min. 2 cr.).
Variable

ME 497 (1-6) Internship
Variable

ME 499 (1-6) Individual Study
Variable

MEDICAL LABORATORY SCIENCE

Medical Laboratory Science
College of Science, Engineering & Technology
Department of Biological Sciences
246 Trafton Science Center S • 507-389-2417
Website: www.mnsu.edu/dept/biology

Director: Lois Anderson, MA, MT (ASCP)

The four-year medical laboratory science curriculum leads to the degree of Bachelor of Science in medical laboratory science. The first three years are spent at the University. The fourth year is spent at one of the affiliated hospital schools of medical laboratory science. Upon successful completion of this year, the BS degree is awarded by the University and graduates are then eligible to take a certifying examination.

Because the medical laboratory science curriculum closely parallels that of other majors, such as biology, students from other majors are encouraged to apply.

POLICIES/INFORMATION

Admission to Major is granted by the department. Minimum university admission requirements are:
- a minimum of 32 earned semester credit hours.
- a minimum cumulative GPA of 2.00 (“C”).

Contact the department for application procedures.

Students should contact the Department of Medical Laboratory Science early in their college career for admission to the program, for academic and career counseling, and for information on the process and standards for admission to the professional curriculum, including registration procedures. Because enrollment in the fourth year is limited by the size of classes in the affiliated hospital schools, admission to the program does not ensure admission to the fourth year of the curriculum. Admission into the fourth year hospital clinical internship is competitive.

Students majoring in Medical Laboratory Science have an advisor from their area of interest assigned to them. Questions and concerns pertaining to advising and the assignment of advisors can be answered by Ken Adams, SRC, 125 Trafton Science Center, telephone 507-389-1521.

GPA Policy. A GPA of 2.0 is required in both sciences courses and cumulative coursework.

Probation. Refer to the College regarding required advising for students on academic probation.

P/N Grading Policy. No P/N grades are accepted toward the major except BIOL 175.

Agencies and clinical site adjunct faculty participating in the Medical Laboratory Science program include, but not limited to: Hennepin County Medical Center, Minneapolis, MN, John T. Crosssen, M.D., Roberta Montgomery, BS, MLS,MT (ASCP); Mercy College of Health Sciences CLS Program, Des Moines, IA, Kyla Dippold, MS, MT (ASCP), CLS (NCA); St. Luke’s Hospital, Cedar Rapids, IA, Carol Collingsworth, MT (ASCP) SC; Lindsey Mullenbach, MLS (ASCP); Lileah Harris, M.D., University of Minnesota, Minneapolis, MN, Janice Conway-Klaasen, Ph.D., MT(ASCP) SM; New York Methodist Hospital, Brooklyn, NY, Lori Burkard, MS, MT (ASCP), Lynn Jones, MT (ASCP), Rabia Mir, M.D.; Mercy Medical Cen-
ter, Sioux City, IA, Mary Smith, MS, MLS (ASCP), Askar Qalbani, M.D.; Sanford USD Medical Center, Sioux Falls, SD, DesiRae M. Muirhead, M.D., Renee Rydell, MBA, MS, MT (ASCP); St. Luke’s College, Sioux City, IA, James Quesenberry, MD, Pamela Briese, MS, MT (ASCP), SC. Students accepted into the clinical internship will be responsible for: Proof of Medical/Hospitalization/Health Insurance; Health Physical Exam; Tuberculosis (TB) testing; and Proof of Immunization which may include the following: Hepatitis B, Measles, Mumps, Rubella, Tetanus, Chickenpox (Varicella), and Influenza. Students may also be required to submit to Drug Screen Testing. Internship sites are required by law to do Background Checks on all students admitted to their medical laboratory science programs.

MEDICAL LABORATORY SCIENCES BS
Degree completion = 120 credits

Required General Education
BIOL 270 Microbiology (4)
CHEM 201 General Chemistry I (5)
(choose 4 credits)
MATH 112 College Algebra (4)
MATH 115 Precalculus Mathematics (4)
MATH 121 Calculus I (4)
(choose 4 credits)
BIOL 105 General Biology I (4)
BIOL 105W General Biology I (4)

Major Common Core
BIOL 106 General Biology II (4)
BIOL 175 Orientation to Clinical Laboratory Science (1)
BIOL 211 Genetics (4)
BIOL 220 Human Anatomy (4)
BIOL 330 Principles of Human Physiology (4)
BIOL 430 Hematology/Introduction to Immunology (4)
CHEM 202 General Chemistry II (5)
CHEM 320 Organic Chemistry I (5)
CHEM 360 Principles of Biochemistry (4)

Major Restricted Electives
(choose 3 credits)
HLTH 475 Biostatistics (3)
STAT 154 Elementary Statistics (3)
(choose 30-39 credits)

Internship credits are determined in consultation with advisor.
MEDT 410 Clinical Hematology I (1-10)
MEDT 411 Clinical Immunohematology I (1-10)
MEDT 412 Clinical Immunology I (1-10)
MEDT 413 Clinical Chemistry I (1-10)
MEDT 414 Clinical Microbiology I (1-10)
MEDT 415 Clinical Microscopy I (1-10)
MEDT 416 Clinical Hematology II (1-10)
MEDT 417 Clinical Immunohematology II (1-10)
MEDT 418 Clinical Chemistry II (1-10)
MEDT 419 Clinical Microbiology II (1-10)
MEDT 420 Clinical Microscopy II (1-10)
MEDT 499 Individual Study (1-6)

CHOOSE 1 CLUSTER
Hennepin County Medical Center, Minneapolis, MN
BIOL 380 Blood Banking/Urinalysis (3)
BIOL 475 Medical Microbiology (4)

St. Luke’s Hospital, Cedar Rapids, IA / St. Luke’s College, Sioux City, IA / Mercy College of Health Science, Des Moines, IA / Sanford USD Medical Center, Sioux Falls, SD / New York Methodist Hospital, Brooklyn, NY / Mercy Medical Center, Sioux City, IA
BIOL 475 Medical Microbiology (4)

University of Minnesota, Minneapolis, MN and Rochester, MN
CHEM 321 Organic Chemistry II (3)
CHEM 331 Organic Chemistry II Lab (1)
(choose 4 credits)
MATH 121 Calculus I (4)

Required Minor: None.

COURSE DESCRIPTIONS

MEDT 410 (1-10) Clinical Hematology I
Theory of blood cell formation; disease states; hemostasis, microscopic examination of blood/bone marrow films; practical experience with instruments and techniques which determine major hematologic and clotting parameters; quality control.

MEDT 411 (1-10) Clinical Immunohematology I
Major blood group systems; principles and procedures for antigen/antibody detection, identification; donor blood collection, preservation, processing; component therapy; transfusion reaction evaluation; Rh immune globulin; quality control.

MEDT 412 (1-10) Clinical Immunology I
Antigen/antibody structure function and interaction; basic principles and procedures of humoral and cellular immunology; performance and clinical correlation of serological testing; quality control.

MEDT 413 (1-10) Clinical Chemistry I
Identification and quantification of specific chemical substances in blood and body fluids by analytical techniques; clinical correlation with disease states; principles of instrumentation; data processing; toxicology; quality control.

MEDT 414 (1-10) Clinical Microbiology I
Theory and techniques of cultivation, isolation and identification of bacteria, fungi, parasites and viruses; determination of sensitivity to antimicrobial agents; clinical correlation to disease states, asepsis; environmental monitoring; quality control.

MEDT 415 (1-10) Clinical Microscopy I
Theory of renal function in health and disease; renal function tests including chemical and microscopic examination of urine; analysis of fecal specimens, gastric, spinal fluid and other body fluids; quality control.

MEDT 416 (1-10) Clinical Hematology II
A continuation of Clinical Hematology I

MEDT 417 (1-10) Clinical Immunohematology II
A continuation of Clinical Immunohematology I.

MEDT 418 (1-10) Clinical Chemistry II
A continuation of Clinical Chemistry I.

MEDT 419 (1-10) Clinical Microbiology II
A continuation of Clinical Microbiology I.

MEDT 420 (1-10) Clinical Microscopy II
A continuation of Clinical Microscopy I.

MEDT 499 (1-6) Individual Study
Related topics in medical technology.
The four-year Army ROTC curriculum develops the student’s leadership, managerial and organizational abilities. Leadership skills acquired through ROTC and the practical application of skills provided in the program transfer easily to civilian career goals. ROTC graduates traditionally enter industrial and business career fields with a significant competitive edge.

The program consists of two parts: the basic course and the advanced course. The basic course usually occurs the first year and sophomore year and students incur no military obligation. After completing the basic course, students may enroll in the advanced course. In order to enroll, students must also execute a contract with the United States Army. Additionally, students with military basic training experience may receive advanced placement credit into the ROTC advanced course. The advanced course must be taken after students receive academic junior status. All cadets receive uniforms and the necessary textbooks for military science classes. Also, all contracted cadets will receive a living allowance of at least $300 each academic month of the school year.

**MILITARY SCIENCE/ARMY ROTC**

4-YEAR PROGRAM

**Required for Program**

- HIST 478 American in Vietnam (4) OR
- MSL 252 The Evolution of American Warfare (3)
- MSL 111 Foundations of Officership (1)
- MSL 112 Basic Leadership (1)
- MSL 211 Individual Leadership Studies (2)
- MSL 212 Leadership and Teamwork (2)
- MSL 311 Leadership and Problem Solving (3)
- MSL 312 Leadership and Ethics (3)
- MSL 411 Leadership and Management (3)
- MSL 412 Officership (3)

2-YEAR PROGRAM

**Required for Program**

- HIST 478 American in Vietnam (4) OR
- MSL 252 The Evolution of American Warfare (3)
- MSL 311 Leadership and Problem Solving (3)
- MSL 312 Leadership and Ethics (3)
- MSL 411 Leadership and Management (3)
- MSL 412 Officership (3)

**COURSE DESCRIPTIONS**

MSL 111 (1) Foundations of Officership

Introduces students to issues and competencies that are central to a commissioned officer’s responsibilities. Establishes framework for understanding officership, leadership, Army values, as well as skills such as physical fitness and time management.

Fall

MSL 112 (1) Basic Leadership

Establishes foundation of basic leadership fundamentals such as problem solving, communications, briefings and effective writing, goal setting, techniques for improving listening and speaking skills, and an introduction to counseling.

Spring

MSL 150 (1) Leadership Lab

This class is the associated leadership lab for the MSL classes. It is the hands-on portion where individual and collective military tasks are practiced and leadership lessons are applied. Students must be enrolled in ROTC to take this course.

Coreq: MSL 111, MSL 112, MSL 211, MSL 212, MSL 299, MSL 311, MSL 312, MSL 411, MSL 412, MSL 499

Fall, Spring

**MILITARY SCIENCE MINOR**

**Required for Minor**

- CMST 102 Public Speaking (3)
- HIST 478 American in Vietnam (4) OR
- MSL 252 The Evolution of American Warfare (3)
- MSL 210 Army Physical Fitness (1)
- MSL 311 Leadership and Problem Solving (3)
- MSL 312 Leadership and Ethics (3)
- MSL 366 Leader Development and Assessment Course (LDAC) (3)
- MSL 403 Application of Physical Conditioning (1)
- MSL 411 Leadership and Management (3)
- MSL 412 Officership (3)
- POL 111 United States Government (3)
MSL 210 (1) Army Physical Fitness
This class is open to all students. Please note, this is a physically demanding class. It is a comprehensive fitness program based on the latest military fitness techniques and principles. Students participate in and learn the components of an effective physical fitness program, with emphasis on the development of an individual fitness program and the role of exercise and fitness in one’s life. In addition, students will achieve the highest standards of physical fitness in preparation for the Army Physical Fitness Test. This class is a pre-requisite for MSL 403. Fall, Spring
GE-11

MSL 211 (2) Individual Leadership Studies
Students identify successful leadership characteristics through observation of others and self through experiential learning exercises. Students record observed traits (good and bad) in a dimensional leadership journal and discuss observations in small group settings. Fall

MSL 212 (2) Leadership and Teamwork
Study examines how to build successful teams, various methods for influencing action, effective communication in setting and achieving goals, the importance of timing decisions, creativity in the problem solving process, and obtaining team buy-in through immediate feedback. Spring

MSL 252 (3) The Evolution of American Warfare
This course is designed to provide an overview of American Military history from the Revolutionary War to the present, with emphasis on the post World War I era. It examines the cause, conduct, consequences, and historical threads of military conflict. GE-5

MSL 277 (3) Cadet Professional Development Training (CPDT)
This course is devoted to the study and practical application of the Army profession and Army leadership development through first-hand service with real Army units on actual Army installations. Qualified cadets compete for selection to attend one of 23 separate Army courses. Note: selection is very competitive and each Army-sanctioned course is very rigorous. Once selected, cadets hone their leadership and individual skills during two to four weeks of training and education. Possible courses include: Airborne school, Air Assault school, Leader’s Training Course, and Cadet Troop Leader Training. Pre: Limited to cadets enrolled in Army ROTC

MSL 299 (1-8) Individual Study
Department chair approval required. Fall, Spring

MSL 311 (3) Leadership and Problem Solving
Students conduct self-assessment of leadership style, develop personal fitness regimens, and learn to plan and conduct individual/small unit tactical training while testing reasoning and problem-solving techniques. Students receive direct feedback on leadership abilities. Limited to ROTC cadets who executed a contract with the U.S. Army. Fall

MSL 312 (3) Leadership and Ethics
Examines the role communications, values, and ethics play in effective leadership. Topics include ethical decision-making, consideration of others, spirituality in the military, and a survey of Army leadership doctrine. Emphasis is on improving oral and written communication abilities. Limited to ROTC cadets who executed a contract with the U.S. Army. Pre: MSL 311 Spring

MSL 366 (3) Leader Development and Assessment Course (LDAC)
This course is a rigorous and demanding 32-day internship held at Fort Lewis, WA and is designed to develop and evaluate leadership ability and determine preparedness to become commissioned Army officers. Cadets train in physically and mentally challenging situations and undergo testing on a variety of skills and topics. Pre: Limited to cadets contracted with the US Army

MSL 403 (1) Application of Physical Conditioning
Students plan, organize and lead individual and team oriented physical conditioning activities. These activities are geared toward the physical development and instruction of underclassmen. MSL 403 students also administer fitness tests to underclassmen which measure the cardiovascular endurance and upper and lower body strengths. MSL 403 students are required to successfully pass the Army Physical Fitness Test prior to the end of the semester. Limited to ROTC cadets who executed an enlistment contract with the U.S. Army. Pre: MSL 210 Fall, Spring

MSL 411 (3) Leadership and Management
Develops student proficiency in planning and executing complex operations, functioning as a member of a staff, and mentoring subordinates. Students explore training management, methods of effective staff collaboration, and developmental counseling techniques. Limited to ROTC cadets who executed a contract with the U.S. Army. Pre: MSL 311, MSL 312 Fall

MSL 412 (3) Officership
Study includes case study analysis of military law and practical exercises on establishing an ethical command climate. Students must complete a semester-long senior leadership project that requires them to plan, organize, collaborate, analyze, and demonstrate their leadership skills. Limited to ROTC cadets who executed a contract with the U.S. Army. Pre: MSL 311, MSL 312, MSL 411 Spring

MSL 499 (1-8) Individual Study
Department chair approval required. Limited to ROTC cadets who executed an enlistment contract with the U.S. Army. Fall, Spring

Music
College of Arts & Humanities
Department of Music
202 Earley Center for Performing Arts • 507-389-2118
Website: www.intech.mnsu.edu/music/
Chair: John Lindberg
Faculty: Gerard Aloisio, Tonya Butler, David Dickau, Dale Haefner, Kimm Julian, John Lindberg, Joseph Rodgers, Amy Roisum Foley, Doug Snapp, Stephanie Thorpe, Michael Thursby, David Viscoli

Accreditation. National Association of Schools of Music (NASM)

Music at Minnesota State Mankato
We are passionate about music and the people who make music happen. We work with each student individually to reach beyond expectation, creatively and academically, through hands-on experience in real life settings. Faculty, students and ensembles are warm and welcoming to majors and non-majors alike.

Our Commitment:
We offer the education, experience and personal attention you need to succeed in today’s professional marketplace.
Music majors must:

- Choose 4 credits
- Choose 2 credits
- Choose 3 credits
- Choose 4 credits
- Choose 4 credits

Note:
- MUS 162 Advance Class Piano Proficiency (0)
- MUS 161 Class Piano II (1)
- MUS 160 Class Piano I (1)
- MUS 134 Aural Skills II (2)
- MUS 133 Aural Skills I (2)
- MUS 132 Music Theory II (2)
- MUS 131 Music Theory I (2)
- MUS 119 Ensemble (0-1)
- MUS 116 University Orchestra (0-1)
- MUS 115 Jazz Ensemble (0-1)
- MUS 114 Drum Corp (1)
- MUS 113 Wind Ensemble (0-1)
- MUS 112 Symphonic Band (0-1)
- MUS 111 Wind Ensemble (0-1)
- MUS 106 Vocal Jazz Ensemble (0-1)
- MUS 105 Jazz Ensemble (0-1)
- MUS 104 Opera (0-2)
- MUS 103 Chamber Singers (0-1)
- MUS 102 University Chorale (0-1)
- MUS 101 Concert Choir (0-1)

Music ConTinued

Admission to Major

- Is granted by the department in a two-step process.

Step One: Be accepted as a music major: Every new and transfer student will:
  - Perform a successful audition in their primary instrument or voice;
  - Pass diagnostic tests in music fundamentals/theory and aural skills.

Step Two: Be accepted to pursue a specific degree program offered by the Department of Music. This normally occurs by the end of the second semester of music study; in unusual circumstances, exceptions may be made to extend the time of acceptance upon approval of the music faculty.

University admission requirements for the major are:
- Complete a minimum of 32 earned semester credit hours
- Achieve a minimum cumulative GPA of 2.00 (“C”)

Department of Music for admission to a specific degree program in music are:
- Good progress at a sufficient level in the private studio
- A successful performance jury at the end of the first semester of private study
- Completion of Theory I, Aural Skills I, and Class Piano I with a final grade of at least “C”
- Participate in a music ensemble at a capable level of contribution and skill
- For the BA or BM, a letter of recommendation from the student’s private studio teacher at Minnesota State Mankato (note that performance standards for the BM are significantly higher than for the BA or BS degrees in music)

Required for All Majors:
1. MUS 100 Recital Class (0 credits) according to degree requirements
2. MUS 1xx, Ensemble each semester in residence
3. MUS 2xx or 3xx, Private Lessons (1-3 credits) according to degree requirements

For details on these requirements, see the Undergraduate Music Handbook or a Department of Music Advisor.

GPA Policy. Students must pass required courses under either a music major or the music minor with a grade of “C” or higher.

Students on academic probation must consult with the department chair.

P/N Grading Policy. No P/N grades are accepted for required music courses except where course is only offered P/N.

Transfer students who wish to major or minor in music will be evaluated by appropriate music faculty for proper placement in the music curriculum. These students must fulfill all graduation requirements of the Department of Music in both academic and performance areas.

Residency. In general, courses taken at another institution at the 300 or 400 level will not be accepted as transfer credit for music majors. Music majors must earn at least half of their music credits (including two semesters of private study) at Minnesota State Mankato.

Prospective music majors and minors must audition in their major performing area prior to registration.

All student taking private lessons will pay a fee for the lessons each semester.

Students interested in pursuing a major in music must contact the department for an advising appointment and audition.

MUSIC BA

Degree completion = 120 credits

Major Common Core
MUS 131 Music Theory I (2)
MUS 132 Music Theory II (2)
MUS 133 Aural Skills I (2)
MUS 134 Aural Skills II (2)
MUS 160 Class Piano I (1)
MUS 161 Class Piano II (1)
MUS 162 Advance Class Piano Proficiency (0)

Major Restricted Electives

Music Tech (choose 2 credits)
MUS 245 Music Tech for Music Educators (2)

Pop Music USA (choose 3 credits)
MUS 325 Pop Music USA 1 (Music Industry) (3)
MUS 326 Pop Music USA 2 (Music Industry) (3)

Private Lessons, Lower Division (choose 4 credits)
MUS 251 Private Voice I (1-3)
MUS 261 Private Piano I (1-3)
MUS 262 Private Harpsichord I (1-3)
MUS 265 Private Organ I (1-3)
MUS 271 Private Brass Instruments I (1-3)
MUS 272 Private Reed and Other Instruments I (1-3)
MUS 273 Private String Instruments I (1-3)
MUS 274 Private Percussion I (1-3)
MUS 275 Private Classical Guitar I (1-3)
MUS 278 Private Instrument I (1-3)

Private Lessons, Upper Division (choose 2 credits)
MUS 351 Private Voice II (1-3)
MUS 361 Private Piano II (1-3)
MUS 362 Private Harpsichord II (1-3)
MUS 365 Private Organ II (1-3)
MUS 369 Piano Accompanying (1)
MUS 371 Private Brass (1-3)
MUS 372 Private Reed and Other Instruments II (1-3)
MUS 373 Private String Instruments II (1-3)
MUS 374 Private Percussion II (1-3)
MUS 375 Private Classical Guitar II (1-3)
MUS 378 Private Instrument II (1-3)

Large Ensemble (lower division) (choose 4 credits)
MUS 301 Chamber Singers (0-1)
MUS 302 University Chorale (0-1)
MUS 311 Wind Ensemble (0-1)
MUS 312 Symphonic Band (0-1)
MUS 316 University Orchestra (0-1)

Large Ensemble (upper division) (choose 4 credits)
MUS 103 Chamber Singers (0-1)
MUS 104 Opera (0-2)
MUS 105 Vocal Jazz Ensemble (0-1)
MUS 113 Maverick Athletic Bands (1)
MUS 114 Drum Corp (1)
MUS 115 Jazz Ensemble (0-1)
MUS 116 University Orchestra (0-1)
MUS 118 Jazz Combo (0-1)
MUS 119 Ensemble (0-1)
MUS 303 Chamber Singers (0-1)
MUS 304 Opera (0-2)
MUS 306 Vocal Jazz Ensemble (1)
MUS 307 Opera Workshop (2)
MUS 308 Maverick Men’s Chorus (0-1)
MUS 315 Jazz Ensemble (0-1)
MUS 316 University Orchestra (0-1)
MUS 318 Jazz Combo (0-1)
MUS 319 Ensemble (0-1)
Capstone (choose 1-4 credits) (choose one)
MUS 495 Senior Project (1-4)
MUS 496 Senior Recital (0-1)

Other Graduation Requirements
Required for Bachelor of Arts (BA) degree ONLY: Language (8 credits - take one series)

Required Minor. None.

MUSIC B.MUS in Performance (Option: Voice)

Required General Education

**Pop Music** (choose 3 credits)
MUS 125 Pop Music USA: Jazz to Country to Blues (3)
MUS 126 Pop Music USA: R & B to MTV (3)

**Concert Choir** (choose 3 credits: 3 semesters)
MUS 101 Concert Choir (0-1)

(choose 1 Language)
French
FREN 101 Elementary French I (5)
FREN 102 Elementary French II (5)

German
GER 101 Elementary German I (4)
GER 102 Elementary German II (4)

Norwegian
SCAN 101 Elementary Norwegian I (4)
SCAN 102 Elementary Norwegian II (4)

Spanish
SPAN 101 Elementary Spanish I (4)
SPAN 102 Elementary Spanish II (4)

Swedish
SCAN 111 Elementary Swedish I (4)
SCAN 112 Elementary Swedish II (4)

Major Common Core
MUS 131 Music Theory I (2)
MUS 132 Music Theory II (2)
MUS 133 Aural Skills I (2)
MUS 134 Aural Skills II (2)
MUS 162 Advance Class Piano Proficiency (0)
MUS 181 Music Technology for Music Industry (2)
MUS 201 Introduction to Conducting (2)
MUS 231 Music Theory III (2)
MUS 232 Music Theory IV (2)
MUS 233 Aural Skills III (1-2)
MUS 234 Aural Skills IV (1-2)
MUS 299 Sophomore Review (0)
MUS 321W Music Literature and History I (3)
MUS 322W Music Literature and History II (3)
MUS 434 Form and Analysis (3)

Recital Class (choose 0 credits - 8 semesters)
MUS 100 Recital Class (0)

Major Restricted Electives

Upper Level Music (choose 4 credits)
MUS 325 Pop Music USA 1 (Music Industry) (3)
MUS 326 Pop Music USA 2 (Music Industry) (3)
MUS 401 Choral Musicanship I (3)
MUS 402 Choral Musicanship II (3)
MUS 411 Instrument Musicanship I (3)
MUS 412 Instrument Musicanship II (3)
MUS 420 European Music Travel Tour (3)

MUS 422 Music of the Renaissance (3)
MUS 423 Music of the Baroque Era (3)
MUS 424 Music of the Classic Period (3)
MUS 425 Music of the 19th Century (3)
MUS 426 Music of the Modern Era (3)
MUS 431 Composition (1-3)
MUS 432 Contemporary Theory (3)
MUS 433 Contrapuntal Techniques (3)
MUS 435 Orchestration (3)

Major Emphasis: Voice
MUS 101 Concert Choir (0-1)
MUS 451 Vocal Pedagogy and Literature (3)
MUS 455 Diction for Singers (2)
MUS 459 The Art Song (2)
MUS 496 Senior Recital (0-1)

Lessons--Upper Division (choose 12 credits)
MUS 351 Private Voice II (1-3)

Voice Lessons, Lower Level (choose 8-12 credits)
MUS 251 Private Voice I (1-3)

Ensemble (choose 4 credits)
MUS 301 Concert Choir (0-1)

Piano (choose 4 credits)
MUS 261 Private Piano I (1-3)

Secondary Ensemble (choose 4 credits)
MUS 101 Concert Choir (0-1)
MUS 102 University Chorale (0-1)
MUS 103 Chamber Singers (0-1)
MUS 104 Opera (0-2)
MUS 106 Vocal Jazz Ensemble (0-1)
MUS 302 University Chorale (0-1)
MUS 303 Chamber Singers (0-1)
MUS 304 Opera (0-2)
MUS 306 Vocal Jazz Ensemble (1)
MUS 307 Opera Workshop (2)
MUS 308 Maverick Men’s Chorus (0-1)

Required Minor. None.

MUSIC B.MUS in Performance (Option: Piano)

Major Common Core
MUS 131 Music Theory I (2)
MUS 132 Music Theory II (2)
MUS 133 Aural Skills I (2)
MUS 134 Aural Skills II (2)
MUS 162 Advance Class Piano Proficiency (0)
MUS 181 Music Technology for Music Industry (2)
MUS 201 Introduction to Conducting (2)
MUS 231 Music Theory III (2)
MUS 232 Music Theory IV (2)
MUS 233 Aural Skills III (1-2)
MUS 234 Aural Skills IV (1-2)
MUS 299 Sophomore Review (0)
MUS 321W Music Literature and History I (3)
MUS 322W Music Literature and History II (3)
MUS 434 Form and Analysis (3)

Recital Class (choose 0 credits - 8 semesters)
MUS 100 Recital Class (0)

**Pop Music** (choose 3 credits) (choose 1 from the following)
MUS 325 Pop Music USA 1 (Music Industry) (3)
MUS 326 Pop Music USA 2 (Music Industry) (3)

Major Restricted Electives

Upper Level Music (choose 9 credits)
MUS 325 Pop Music USA 1 (Music Industry) (3)
MUS 326 Pop Music USA 2 (Music Industry) (3)
MUS 401 Choral Musicanship I (3)
MUS 402 Choral Musicanship II (3)
MUS 411 Instrument Musicanship I (3)
### Music B.Mus in Performance (Option: Instrumental)

#### Major Common Core

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<th>Course Code</th>
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<td>MUS 133</td>
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</tbody>
</table>

#### Recital Class (choose 0 credits) (8 semesters)

- MUS 100 Recital Class (0)

#### Pop Music (choose 3 credits)

- MUS 325 Pop Music USA 1 (Music Industry) (3)
- MUS 326 Pop Music USA 2 (Music Industry) (3)

#### Major Restricted Electives

##### Upper Level Music (choose 9 credits)

- MUS 325 Pop Music USA 1 (Music Industry) (3)
- MUS 326 Pop Music USA 2 (Music Industry) (3)
- MUS 401 Choral Musicianship I (3)
- MUS 402 Choral Musicianship II (3)
- MUS 411 Instrument Musicianship I (3)
- MUS 412 Instrument Musicianship II (3)
- MUS 420 European Music Travel Tour (3)
- MUS 422 Music of the Renaissance (3)
- MUS 423 Music of the Baroque Era (3)
- MUS 424 Music of the Classic Period (3)
- MUS 425 Music of the 19th Century (3)
- MUS 426 Music of the Modern Era (3)
- MUS 431 Composition (1-3)
- MUS 432 Contemporary Theory (3)
- MUS 433 Contrapuntal Techniques (3)
- MUS 435 Orchestration (3)

#### Major Emphasis: Instrumental

- MUS 299 Sophomore Review (0)
- MUS 379 Instrument Literature & Pedagogy (2)
- MUS 496 Senior Recital (0-1)

##### Ensemble (choose 4 credits) See advisor

- MUS 111 Wind Ensemble (0-1)
- MUS 112 Symphonic Band (0-1)
- MUS 115 Jazz Ensemble (0-1)
- MUS 116 University Orchestra (0-1)

##### Upper Level Ensemble (choose 4 credits) See advisor

- MUS 311 Wind Ensemble (0-1)
- MUS 312 Symphonic Band (0-1)
- MUS 315 Jazz Ensemble (0-1)
- MUS 316 University Orchestra (0-1)

##### Secondary Ensemble (choose 4 credits) See advisor

- MUS 101 Concert Choir (0-1)
- MUS 102 University Chorale (0-1)
- MUS 103 Chamber Singers (0-1)
- MUS 104 Opera (0-2)
- MUS 106 Vocal Jazz Ensemble (0-1)
- MUS 111 Wind Ensemble (0-1)
- MUS 112 Symphonic Band (0-1)
- MUS 113 Pep Band I (1)
- MUS 114 Drum Corp (1)

### Required Minor. None.
MUS 115 Jazz Ensemble (0-1)
MUS 116 University Orchestra (0-1)
MUS 117 Theatre Orchestra (1)
MUS 118 Jazz Combo (0-1)
MUS 119 Ensemble (0-1)
MUS 301 Concert Choir (0-1)
MUS 302 University Chorale (0-1)
MUS 303 Chamber Singers (0-1)
MUS 304 Opera (0-2)
MUS 306 Vocal Jazz Ensemble (1)
MUS 307 Opera Workshop (2)
MUS 308 Maverick Men’s Chorus (0-1)
MUS 311 Wind Ensemble (0-1)
MUS 312 Symphonic Band (0-1)
MUS 315 Jazz Ensemble (0-1)
MUS 316 University Orchestra (0-1)
MUS 318 Jazz Combo (0-1)
MUS 319 Ensemble (0-1)

CHOOSE 1 CLUSTER
Lower Level Private Lessons--All lessons must be on the same instrument.
Brass (choose 8-12 credits)
MUS 271 Private Brass Instruments (1-3)
Woodwind (choose 8-12 credits)
MUS 272 Private Reed and Other Instruments (1-3)
Strings (choose 8-12 credits)
MUS 273 Private String Instruments (1-3)
Percussion (choose 8-12 credits)
MUS 274 Private Percussion I (1-3)
Guitar (choose 8-12 credits)
MUS 275 Private Classical Guitar I (1-3)

Upper Level Private Lessons--All lessons must be on the same instrument.
Brass (choose 12 credits)
MUS 371 Private Brass (1-3)
Woodwind (choose 12 credits)
MUS 372 Private Reed and Other Instruments (1-3)
Strings (choose 12 credits)
MUS 373 Private String Instruments (1-3)
Percussion (choose 12 credits)
MUS 374 Private Percussion II (1-3)
Guitar (choose 12 credits)
MUS 375 Private Classical Guitar II (1-3)

Required Minor: None.

MUSIC EDUCATION BS, TEACHING
Degree completion = 136 credits

Required for Major (Options)
Students should choose either Vocal/General Music (K-12) or Instrumental/General Music (K-12) as an area of specialization.

MUSIC EDUCATION BS, TEACHING
(Option: Vocal/General Music (K-12))

Required General Education
HLTH 240 Drug Education (3)
KSP 220W Human Relations in a Multicultural Society (3)
MUS 328 Music of the World (3)

Pop Music (choose 3 credits)
MUS 125 Pop Music USA: Jazz to Country to Blues (3)
MUS 126 Pop Music USA: R & B to MTV (3)

Primary Ensemble (choose 2 credits)
2 Semesters; MUS 101 and MUS 102 can be repeated
MUS 101 Concert Choir (0-1)
MUS 102 University Chorale (0-1)

Major Common Core
KSP 202 Technology Integration in the Classroom (2)
KSP 222 Introduction to the Learner and Learning (2)
KSP 330 Planning, Instruction, and Evaluation in the Classroom (5)
KSP 440 Creating Learning Environments to Engage Children, Families, and Community (3)
KSP 442 Reading, Literacy, and Differentiated Instruction in Inclusive Classrooms (3)
KSP 464 Professional Seminar (1)
KSP 476 K-12 Student Teaching (11)

MUS 131 Music Theory I (2)
MUS 132 Music Theory II (2)
MUS 133 Aural Skills I (2)
MUS 134 Aural Skills II (2)
MUS 140 Intro to Music Education (2)
MUS 160 Class Piano I (1)
MUS 161 Class Piano II (1)
MUS 162 Advance Class Piano Proficiency (0)
MUS 175 Class Instruction in Guitar (1)
MUS 201 Introduction to Conducting (2)
MUS 231 Music Theory III (2)
MUS 232 Music Theory IV (2)
MUS 233 Aural Skills III (1)
MUS 234 Aural Skills IV (1)
MUS 235 Jazz Pedagogy and Improvisation (1)
MUS 245 Music Technology for Music Education (2)
MUS 299 Sophomore Review (0)
MUS 341 General Music K-5 (2)
MUS 342 General Music 6-12 (2)
MUS 496 Senior Recital (0-1)

Recital Class (choose 0 credits)
7 semesters of Recital Class at 0 credits per semester
MUS 100 Recital Class (0)

Major Restricted Electives
Music History 1 (choose 2-3 credits)
MUS 321W Music Literature and History I (3)
MUS 323 Music Styles before 1820 for the Music Educator (2)
Music History 2 (choose 2-3 credits)
MUS 322W Music Literature and History II (3)
MUS 324 Music Styles after 1820 for the Music Educator (2)

Major Emphasis: Vocal/General K-12 License
MUS 411 Instrument Musicianship I (3)
MUS 412 Instrument Musicianship II (3)
MUS 451 Vocal Pedagogy and Literature (3)
MUS 455 Diction for Singers (2)

Primary Ensemble (choose 5 credits)
In addition to 2 credits earned to fill General Education requirements; MUS 101, MUS 102, MUS 301 and MUS 302 can be repeated.
MUS 101 Concert Choir (0-1)
MUS 102 University Chorale (0-1)
MUS 301 Concert Choir (0-1)
MUS 302 University Chorale (0-1)

Secondary Ensemble (choose 4 credits)
All ensembles can be repeated.
MUS 103 Chamber Singers (0-1)
MUS 104 Opera (0-2)
MUS 106 Vocal Jazz Ensemble (0-1)
MUS 303 Chamber Singers (0-1)
MUS 304 Opera (0-2)
MUS 306 Vocal Jazz Ensemble (1)
MUS 307 Opera Workshop (2)
MUS 308 Maverick Men’s Chorus (0-1)

Accompanying (choose 2 credits)
1 semester large ensemble accompanying; 1 semester solo/small ensemble accompanying; MUS 219 can be repeated.

**MUS 219 Piano Accompanying (1)**

**CHOOSE 1 CLUSTER**

Lessons—Choose Cluster according to Primary Performance Area (9 credits in each cluster); lessons can be repeated.

**Voice (choose 4 credits)**

- MUS 251 Private Voice I (1-3) (choose 3 credits)
- MUS 261 Private Piano I (1-3) (choose 2 credits)
- MUS 361 Private Piano II (1-3) (choose 2 credits)
- MUS 251 Private Voice I (1-3) (choose 1-2 credits)
- MUS 261 Private Piano I (1-3)

**Piano (choose 4 credits)**

- MUS 251 Private Voice I (1-3) (choose 3 credits)
- MUS 361 Private Piano II (1-3) (choose 2 credits)
- MUS 251 Private Voice I (1-3) (choose 1-2 credits)
- MUS 261 Private Piano I (1-3)

**Guitar (choose 4 credits)**

- MUS 251 Private Voice I (1-3) (choose 3 credits)
- MUS 361 Private Piano II (1-3) (choose 2 credits)
- MUS 251 Private Voice I (1-3) (choose 1-2 credits)
- MUS 261 Private Piano I (1-3)

**MUSIC EDUCATION BS, TEACHING**

*(Option: INSTRUMENTAL (BAND/ORCH) AND CLASSROOM MUSIC, K-12)*

**Required General Education**

- HLTH 240 Drug Education (3)
- KSP 220W Human Relations in a Multicultural Society (3)
- MUS 328 Music of the World (3)

**Pop Music (choose 3 credits)**

- MUS 125 Pop Music USA: Jazz to Country to Blues (3)
- MUS 126 Pop Music USA: R & B to MTV (3)

**Primary Ensemble (choose 2 credits)**

Please see your advisor if you have questions; ensembles can be repeated.

- MUS 111 Wind Ensemble (0-1)
- MUS 112 Symphonic Band (0-1)
- MUS 116 University Orchestra (0-1)

**Major Common Core**

- KSP 202 Technology Integration in the Classroom (2)
- KSP 222 Introduction to the Learner and Learning (2)
- KSP 330 Planning, Instruction, and Evaluation in the Classroom (5)
- KSP 440 Creating Learning Environments to Engage Children, Families, and Community (3)
- KSP 442 Reading, Literacy, and Differentiated Instruction in Inclusive Classrooms (3)
- KSP 464 Professional Seminar (1)
- KSP 476 K-12 Student Teaching (11)
- MUS 131 Music Theory I (2)
- MUS 132 Music Theory II (2)
- MUS 133 Aural Skills I (2)
- MUS 134 Aural Skills II (2)
- MUS 140 Intro to Music Education (2)
- MUS 160 Class Piano I (1)
- MUS 161 Class Piano II (1)
- MUS 162 Advance Class Piano Proficiency (0)
- MUS 175 Class Instruction in Guitar (1)
- MUS 201 Introduction to Conducting (2)
- MUS 231 Music Theory III (2)
- MUS 232 Music Theory IV (2)
- MUS 233 Aural Skills III (1)
- MUS 234 Aural Skills IV (1)

- MUS 235 Jazz Pedagogy and Improvisation (1)
- MUS 245 Music Technology for Music Education (2)
- MUS 299 Sophomore Review (0)
- MUS 341 General Music K-5 (2)
- MUS 342 General Music 6-12 (2)
- MUS 496 Senior Recital (0-1)

**Major Restricted Electives**

- Music History 1 (choose 2-3 credits)
- MUS 321W Music Literature and History I (3)
- MUS 323 Music before 1820 for Music Educators (2)
- Music History 2 (choose 2-3 credits)
- MUS 322W Music Literature and History II (3)
- MUS 324 Music after 1820 for Music Educators (2)

**Recital Class (choose 0 credits)**

7 semesters of Recital Class at 0 credits per semester.

- MUS 100 Recital Class (0)

**Major Emphasis**: Instrumental/General K-12 License

- MUS 151 Class Instruction in Singing I (1)
- MUS 171 Class Instruction in Brass Instruments (1)
- MUS 172 Class Instruction in Woodwinds (1)
- MUS 173 Class Instruction in Strings (1)
- MUS 174 Class Instruction in Percussion (1)
- MUS 411 Instrument Musicianship I (3)
- MUS 412 Instrument Musicianship II (3)

**Secondary Private Lessons (choose 4 credits)**

It is recommended that one secondary instrument be studied for at least two semesters; lessons can be repeated for credit.

- MUS 271 Private Brass Instruments (1-3)
- MUS 272 Private Reed and Other Instruments (1-3)
- MUS 273 Private String Instruments (1-3)
- MUS 274 Private Percussion I (1-3)
- MUS 275 Private Classical Guitar I (1-3)

**Primary Ensemble: Lower Division (choose 2 credits)**

In addition to ensembles fulfilling General Education requirements; ensembles can be repeated.

- MUS 111 Wind Ensemble (0-1)
- MUS 112 Symphonic Band (0-1)
- MUS 116 University Orchestra (0-1)

**Secondary Ensemble (choose 4 credits)**

Ensembles can be repeated for credit.

- MUS 111 Wind Ensemble (0-1)
- MUS 112 Symphonic Band (0-1)
- MUS 113 Pep Band I (1)
- MUS 114 Drum Corp (1)
- MUS 115 Jazz Ensemble (0-1)
- MUS 116 University Orchestra (0-1)
- MUS 117 Theatre Orchestra (1)
- MUS 118 Jazz Combo (0-1)
- MUS 119 Ensemble (0-1)
- MUS 311 Wind Ensemble (0-1)
- MUS 312 Symphonic Band (0-1)
- MUS 315 Jazz Ensemble (0-1)
- MUS 316 University Orchestra (0-1)
- MUS 318 Jazz Combo (0-1)
- MUS 319 Ensemble (0-1)

**Primary Ensemble: Upper Division (choose 3 credits)**

Ensembles can be repeated for credit.

- MUS 311 Wind Ensemble (0-1)
- MUS 312 Symphonic Band (0-1)
- MUS 316 University Orchestra (0-1)

**CHOOSE 1 CLUSTER**

Private Lessons--Primary Instrument; each cluster totals 7 credits.

**Keyboard (choose 4 credits)**

- MUS 261 Private Piano I (1-3)

**(choose 3 credits)**

- MUS 261 Private Piano II (1-3)
Brass
All lessons must be on the same instrument.
(choose 4 credits)
MUS 271 Private Brass Instruments (1-3)
(choose 3 credits)
MUS 371 Private Brass (1-3)
Woodwinds
All lessons must be on the same instrument.
(choose 4 credits)
MUS 272 Private Reed and Other Instruments (1-3)
(choose 3 credits)
MUS 372 Private Reed and Other Instruments (1-3)
Strings
All lessons must be on the same instrument.
(choose 4 credits)
MUS 273 Private String Instruments (1-3)
(choose 3 credits)
MUS 373 Private String Instruments (1-3)
Percussion
(choose 4 credits)
MUS 274 Private Percussion I (1-3)
(choose 3 credits)
MUS 374 Private Percussion II (1-3)
Guitar
(choose 4 credits)
MUS 275 Private Classical Guitar I (1-3)
(choose 3 credits)
MUS 375 Private Classical Guitar II (1-3)

Required for Major (Professional Education, 30 credits)
See the SECONDARY EDUCATION section for admission requirements to Professional Education and a list of required professional education courses.

Required Minor. None.

MUSIC INDUSTRY BS
Degree completion = 120 credits

Required General Education
MUS 120 Introduction to Music (3)

Music Ensembles (choose 2 credits)
2 semesters of participation; Singers participate in choral ensembles. Percussion, wind, and string instrument players participate in bands or orchestra. Guitar and piano players should consult their advisors.
MUS 101 Concert Choir (1)
MUS 102 University Chorale (1)
MUS 103 Chamber Singers (1)
MUS 104 Opera (2)
MUS 106 Vocal Jazz Ensemble (1)
MUS 111 Wind Ensemble (1)
MUS 112 Symphonic Band (1)
MUS 115 Jazz Ensemble (1)
MUS 116 University Orchestra (1)
MUS 117 Theatre Orchestra (1)
MUS 118 Jazz Combo (1)

Major Common Core
ENG 272W Business Communication (4)
MUS 131 Music Theory I (2)
MUS 132 Music Theory II (2)
MUS 133 Aural Skills I (2)
MUS 134 Aural Skills II (2)
MUS 181 Music Technology for Music Industry (2)
MUS 185 Foundations in Music Industry (2)
MUS 284 Social Media in Music Industry (2)
MUS 285 Critical Listening in Music Industry 1 (1)
MUS 286 Critical Listening in Music Industry 2 (1)
MUS 298 Sophomore Review for Music Industry (0)
MUS 325 Pop Music USA 1 (Music Industry) (3)
MUS 381 Music Management and Concert Production (3)
MUS 450 Projects in Music Industry (3)
MUS 481 Digital Audio Theory and Techniques (2)
MUS 482 Music Promotion (3)
MUS 483 Music in the Marketplace (3)
Activity in Music Industry (choose 2 credits) 2 semesters
MUS 282 Activity in Music Industry (1)
Practicum in Music Industry (choose 2 credits) 2 semesters
MUS 382 Practicum in Music Industry (1)
Recital Class (choose 0 credits) Seven Semesters of Recital Class are required
MUS 100 Recital Class (0)
Internship (choose 5-16 credits)
5 credits minimum; additional credits may be needed to meet 40 credit minimum of upper division credits. See music advisor for more information.
MUS 497 Internship (1-16)

Major Restricted Electives
Private Lessons (choose 4 credits)
4 semesters of study of one course number; Requires audition for admission to studio; Please see Department of Music advisor.
MUS 251 Private Voice I (1-3)
MUS 261 Private Piano I (1-3)
MUS 262 Private Harpsichord I (1-3)
MUS 265 Private Organ I (1-3)
MUS 271 Private Brass Instruments (1-3)
MUS 272 Private Reed and Other Instruments (1-3)
MUS 273 Private String Instruments (1-3)
MUS 274 Private Percussion I (1-3)
MUS 275 Private Classical Guitar I (1-3)
MUS 278 Private Instrument I (1-3)

Lower Division Ensembles (choose 2 credits)
2 semesters of participation; Singers participate in choral ensembles. Percussion, wind, and string instrument players participate in bands or orchestra. Guitar and piano players should consult their advisors.
MUS 101 Concert Choir (1)
MUS 102 University Chorale (1)
MUS 103 Chamber Singers (1)
MUS 104 Opera (2)
MUS 106 Vocal Jazz Ensemble (1)
MUS 111 Wind Ensemble (1)
MUS 112 Symphonic Band (1)
MUS 115 Jazz Ensemble (1)
MUS 116 University Orchestra (1)
MUS 117 Theatre Orchestra (1)
MUS 118 Jazz Combo (1)
MUS 119 Ensemble (1)

Upper Division Ensembles (choose 3 credits)
3 semesters of participation; Singers participate in choral ensembles. Percussion, wind, and string instrument players participate in bands or orchestra. Guitar and piano players should consult their advisors.
MUS 301 Concert Choir (1)
MUS 302 University Chorale (1)
MUS 303 Chamber Singers (1)
MUS 304 Opera (2)
MUS 306 Vocal Jazz Ensemble (1)
MUS 307 Opera Workshop (2)
MUS 308 Maverick Men’s Chorus (1)
MUS 311 Wind Ensemble (1)
MUS 312 Symphonic Band (1)
MUS 315 Jazz Ensemble (1)
MUS 316 University Orchestra (1)
MUS 318 Jazz Combo (1)
MUS 319 Ensemble (1)
Minor
Choose one of the following required minors: Business Administration, Business Law, International Business, Marketing, or Mass Media is required for this degree.

MUSIC INDUSTRY BS AUDIO PRODUCTION SPECIALIST
Note: Please see Department of Music Advisor about this degree.
Degree completion = 120 credits

Required General Education
MUS 120 Introduction to Music (3)
MUS 125 Pop Music USA: Jazz to Country to Blues (3)
Ensembles (upper division) (choose 2 credits) 2 semesters of participation
MUS 301 Concert Choir (1)
MUS 302 University Chorale (1)
MUS 303 Chamber Singers (1)
MUS 306 Vocal Jazz Ensemble (1)
MUS 308 Maverick Men's Chorus (1)
MUS 311 Wind Ensemble (1)
MUS 312 Symphonic Band (1)
MUS 315 Jazz Ensemble (1)
MUS 316 University Orchestra (1)
MUS 318 Jazz Combo (1)

Major Common Core
MUS 131 Music Theory I (2)
MUS 132 Music Theory II (2)
MUS 133 Aural Skills I (2)
MUS 134 Aural Skills II (2)
MUS 160 Class Piano I (1)
MUS 162 Advance Class Piano Proficiency (0)
MUS 326 Pop Music USA 2 (Music Industry) (3)
MUS 381 Music Management and Concert Production (3)
MUS 382 Practicum in Music Industry (2 sem. @ 1 cr.) (2)
MUS 450 Projects in Music Industry (3)
MUS 481 Music Promotion (3)
MUS 483 Music in the Workplace (3)
MUS 497 Internship (1-16)
Recital Class (choose 0 credits) 4 semesters
MUS 100 Recital Class (0)

CHOOSE 1 CLUSTER
Private Lessons (choose 4 credits)
Either 4 semesters of lessons, or 2 semesters of MUS 151 and 2 semesters of MUS 251.
MUS 271 Private Brass Instruments (1-3)
MUS 272 Private Reed and Other Instruments (1-3)
MUS 273 Private String Instruments (1-3)
MUS 274 Private Percussion I (1-3)
MUS 275 Private Classical Guitar I (1-3)
Class Voice/Lessons (choose 2 credits)
MUS 151 Class Instruction in Singing I (1)
MUS 251 Private Voice I (1-3)

Required Minor. Yes. See Advisor.

MUSIC MINOR
Required for Minor (21 credits)
MUS 120 Introduction to Music (3) OR
MUS 125 Pop Music USA: Jazz to Country to Blues (3) OR
MUS 126 Pop Music USA: R & B to MTV (3)
MUS 130 Music Theory I (2)
MUS 132 Music Theory II (2)
MUS 133 Aural Skills I (2)
MUS 134 Aural Skills II (2)
MUS 1xx Ensemble (1) (2 semesters at 1 credit)
MUS 2xx Private Lessons (1-3) (2 semesters at 1 credit)
MUS 321W Music Literature and History I (3)
MUS 322W Music Literature and History II (3)

COURSE DESCRIPTIONS

MUS 100 (0) Recital Class
Required for all music majors each semester in residence.
May be repeated. P/N only.

MUS 101 (0-1) Concert Choir
Select ensemble which performs on and off campus.
Pre: Audition Required
GE-11

MUS 102 (0-1) University Chorale
Large chorus. Open to all qualified students.
Previous singing experience desirable but not required. No audition.
GE-11

MUS 103 (0-1) Chamber Singers
A select group of approximately 20 singers who perform works for small ensemble. The group tours regularly in the state and in the region.
Pre: Audition Required
GE-11

MUS 104 (0-2) Opera
Solo and ensemble experience specializing in the performance of opera and opera repertoire.
Pre: Audition Required
Fall, Spring
GE-11

MUS 106 (0-1) Vocal Jazz Ensemble
Ensemble specializing in the performance of vocal jazz literature. Admission by audition only.
Fall, Spring
GE-11

MUS 111 (0-1) Wind Ensemble
A select group of wind and percussion players. Open to all students who play a band instrument. Concerts on and off campus.
Pre: Audition Required
GE-11

MUS 112 (0-1) Symphonic Band
Open to all students who play a band instrument. No audition required.
GE-11

MUS 113 (1) Maverick Athletic Bands
Open to any qualified student who plays a band instrument. Plays for hockey and basketball games.
Pre: Audition Required
GE-11

MUS 114 (1) Drum Corps
Open to students who play a band instrument.
Pre: Audition required.
Fall
GE-11

MUS 115 (0-1) Jazz Ensemble
Select ensemble which performs music from the jazz repertoire. Audition required.
GE-11

MUS 116 (0-1) University Orchestra
Open to all qualified students who play an orchestral instrument.
Pre: Audition Required
GE-11

MUS 117 (1) Theatre Orchestra
Plays for theatre productions.
Pre: Audition Required
GE-11
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
<th>Pre-Requisites</th>
<th>GE Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUS 127 (3)</td>
<td>Survey of American Popular Music</td>
<td>A survey of commercially successful popular music from roughly 1900 to the present--what was the music? Who were the artists? When was it first heard, and what were the factors that contributed to its success?</td>
<td>Variable</td>
<td>GE-6, GE-7</td>
</tr>
<tr>
<td>MUS 130 (3)</td>
<td>Fundamentals of Music</td>
<td>Notation, basic keyboard skills.</td>
<td></td>
<td>GE-6</td>
</tr>
<tr>
<td>MUS 131 (2)</td>
<td>Music Theory I</td>
<td>Part I of a four semester sequence in Music Theory focusing on written music notation skills including scales, tonality, key modes, intervals, transposition, chords, cadences, non-harmonic tones and melodic organization.</td>
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</tr>
<tr>
<td>MUS 132 (2)</td>
<td>Music Theory II</td>
<td>Part II of a four semester sequence in Music Theory focusing on written music notation skills including scales, tonality, key modes, intervals, transposition, chords, cadences, non-harmonic tones and melodic organization.</td>
<td>Pre: MUS 131</td>
<td></td>
</tr>
<tr>
<td>MUS 133 (2)</td>
<td>Aural Skills I</td>
<td>Part I of the four semester sequence focusing on sight-singing and ear training.</td>
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</tr>
<tr>
<td>MUS 134 (2)</td>
<td>Aural Skills II</td>
<td>Part II of the four semester sequence focusing on sight-singing and ear training.</td>
<td>Pre: MUS 133</td>
<td></td>
</tr>
<tr>
<td>MUS 140 (2)</td>
<td>Introduction to Music Education</td>
<td>The course provides an opportunity to gain a basic understanding of the nature of professional work in K-12 education. Clinical experiences and classroom observations are included.</td>
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</tr>
<tr>
<td>MUS 151 (1)</td>
<td>Class Instruction in Singing I</td>
<td>Two semester sequence. Fundamentals of posture, tone production, breathing, diction, and expressiveness.</td>
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</tr>
<tr>
<td>MUS 160 (1)</td>
<td>Class Piano I</td>
<td>Class instruction in preparation for piano proficiency exam.</td>
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<tr>
<td>MUS 161 (1)</td>
<td>Class Piano II</td>
<td>Class instruction in preparation for piano proficiency exam.</td>
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</tr>
<tr>
<td>MUS 162 (0)</td>
<td>Advance Class Piano Proficiency</td>
<td>Required of all music majors. P/N only.</td>
<td>Pre: Class piano or Piano lessons.</td>
<td></td>
</tr>
<tr>
<td>MUS 171 (1)</td>
<td>Class Instruction in Brass Instruments</td>
<td>Instrumental music education majors only. Emphasis on pedagogical methods and techniques of individual instruments. May be repeated.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MUS 172 (1)</td>
<td>Class Instruction in Woodwinds</td>
<td>Instrumental music education majors only. Emphasis on pedagogical methods and techniques of individual instruments. May be repeated.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MUS 173 (1)</td>
<td>Class Instruction in Strings</td>
<td>Instrumental music education majors only. Emphasis on pedagogical methods and techniques of individual instruments. May be repeated.</td>
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</tr>
<tr>
<td>MUS 174 (1)</td>
<td>Class Instruction in Percussion</td>
<td>Instrumental music education majors only. Emphasis on pedagogical methods and techniques of individual instruments. May be repeated.</td>
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</tr>
<tr>
<td>MUS 181 (2)</td>
<td>Music Technology for Music Industry</td>
<td>Perspectives on and applications in the use of technology in Music Industry.</td>
<td></td>
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<tr>
<td>MUS 185 (2)</td>
<td>Foundations in Music Industry</td>
<td>A survey of career opportunities in Music Industry.</td>
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<tr>
<td>MUS 186 (3)</td>
<td>Introduction to the Music Industry</td>
<td>This online course is designed to provide an introduction of the organizational structures and current practices of the modern music industry with historical perspective for the music business and recording technology student. Required for Undergraduate Certificate in Music Business.</td>
<td>Variable</td>
<td></td>
</tr>
<tr>
<td>MUS 201 (2)</td>
<td>Introduction to Conducting</td>
<td>This course is a prerequisite for Choral Musicianship (MUS 401 / MUS 402) and Instrumental Musicianship (MUS 411 / MUS 412). The course will develop basic conducting technique, acquaint the student with appropriate terminology, develop interpretive skills and gesture vocabulary.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MUS 219 (1)</td>
<td>Piano Accompanying</td>
<td>Experience in accompanying. Advanced pianists may participate in chamber ensembles. May be repeated.</td>
<td>Pre: Consent</td>
<td></td>
</tr>
<tr>
<td>MUS 231 (2)</td>
<td>Music Theory III</td>
<td>Part III of a four semester sequence in Music Theory focusing on written music notation skills.</td>
<td>Pre: MUS 132</td>
<td></td>
</tr>
<tr>
<td>MUS 232 (2)</td>
<td>Music Theory IV</td>
<td>Part IV of a four semester sequence in Music Theory focusing on written music notation skills.</td>
<td>Pre: MUS 231</td>
<td></td>
</tr>
<tr>
<td>MUS 233 (1-2)</td>
<td>Aural Skills III</td>
<td>Part III of the four semester sequence focusing on sight-singing and ear training.</td>
<td>Pre: MUS 134</td>
<td></td>
</tr>
</tbody>
</table>
### MUS 234 (1) Aural Skills IV
Part IV of the four semester sequence focusing on sight-singing and ear training.
Pre: MUS 233

### MUS 235 (1) Jazz Pedagogy and Improvisation
Introduction to the basic concepts of jazz pedagogy/theory and improvisation used in teaching and playing jazz and contemporary music.
Pre: MUS 131, MUS 133
Fall, Spring

### MUS 245 (2) Music Technology for Music Education
Technology applications for the K-12 music educator.
Pre: MUS 131 or permission of instructor.
Spring

### MUS 251 (1-3) Private Voice I
Private lessons: 1 credit=1/2 hour per week, 3 credits = 1 hour per week.
Pre: Consent

### MUS 252 (1-3) Private Piano I
Private lessons: 1 credit = 1/2 hour per week, 3 credits = 1 hour per week.
Pre: Consent

### MUS 253 (1-3) Private Harpsichord I
Private lessons: 1 credit = 1/2 hour per week, 3 credits = 1 hour per week.
Pre: Consent

### MUS 254 (1-3) Private Organ I
Private lessons: 1 credit = 1/2 hour per week, 3 credits = 1 hour per week.
Pre: Consent

### MUS 255 (1-3) Private String Instruments I
Private lessons: 1 credit = 1/2 hour per week, 3 credits = 1 hour per week.
Pre: Consent

### MUS 256 (1-3) Private Percussion I
Private lessons: 1 credit = 1/2 hour per week, 3 credits = 1 hour per week.
Pre: Consent

### MUS 257 (1-3) Private Classical Guitar I
Private lessons: 1 credit = 1/2 hour per week, 3 credits = 1 hour per week.
Pre: Consent

### MUS 258 (1-3) Private Instrument I
Private lessons: 1 credit = 1/2 hour per week, 3 credits = 1 hour per week.
Pre: Consent

### MUS 259 (1) Activity in Music Industry
This course will allow students to gain experience working in the Music Industry area. This course must be taken for two semesters to receive proper credit.

### MUS 260 (2) Social Media in the Music Industry
This course will examine current and potential professional marketing uses of social media in the music industry, including fan-base communication/building, concert promotion, and sales of music and merchandise.
Fall

### MUS 261 (1-3) Private Voice II
Private lessons: 1 credit=1/2 hour per week, 3 credits = 1 hour per week.
Pre: Consent

### MUS 262 (1-3) Private Piano II
Private lessons: 1 credit = 1/2 hour per week, 3 credits = 1 hour per week.
Pre: Consent

### MUS 263 (1-3) Private Harpsichord II
Private lessons: 1 credit = 1/2 hour per week, 3 credits = 1 hour per week.
Pre: Consent

### MUS 264 (1-3) Private Organ II
Private lessons: 1 credit = 1/2 hour per week, 3 credits = 1 hour per week.
Pre: Consent

### MUS 265 (1-3) Private String Instruments II
Private lessons: 1 credit = 1/2 hour per week, 3 credits = 1 hour per week.
Pre: Consent

### MUS 266 (1-3) Private Percussion II
Private lessons: 1 credit = 1/2 hour per week, 3 credits = 1 hour per week.
Pre: Consent

### MUS 267 (1-3) Private Classical Guitar II
Private lessons: 1 credit = 1/2 hour per week, 3 credits = 1 hour per week.
Pre: Consent

### MUS 268 (1-3) Private Instrument II
Private lessons: 1 credit = 1/2 hour per week, 3 credits = 1 hour per week.
Pre: Consent

### MUS 269 (1) Critical Listening for Music Industry Professionals 1: Basic Skills
This course trains students to evaluate and critique music compositions, lyrics, and performances from various perspectives, and to increase their ability to function as music business professionals. The first semester focuses on foundational skills.
Pre: MUS 120, MUS 125 or MUS 325, these courses can be taken concurrently with MUS285
Fall

### MUS 270 (1) Critical Listening for Music Industry Professionals 2: Applications
This course trains students to evaluate and critique music and is a continuation of MUS 285. The second semester focuses on developing skills through case studies.
Pre: MUS 285
Spring

### MUS 271 (1-3) Private Brass Instruments
Private lessons: 1 credit = 1/2 hour per week, 3 credits = 1 hour per week.
Pre: Consent

### MUS 272 (1-3) Private Reed and Other Instruments
Private lessons: 1 credit = 1/2 hour per week, 3 credits = 1 hour per week.
Pre: Consent

### MUS 273 (1-3) Private String Instruments II
Private lessons: 1 credit = 1/2 hour per week, 3 credits = 1 hour per week.
Pre: Consent

### MUS 274 (1-3) Private Percussion II
Private lessons: 1 credit = 1/2 hour per week, 3 credits = 1 hour per week.
Pre: Consent

### MUS 275 (1-3) Private Classical Guitar II
Private lessons: 1 credit = 1/2 hour per week, 3 credits = 1 hour per week.
Pre: Consent

### MUS 276 (1-3) Private Instrument II
Private lessons: 1 credit = 1/2 hour per week, 3 credits = 1 hour per week.
Pre: Consent

### MUS 277 (1) Activity in Music Industry
This course will allow students to gain experience working in the Music Industry area. This course must be taken for two semesters to receive proper credit.

### MUS 278 (1) Critical Listening for Music Industry Professionals 1: Basic Skills
This course trains students to evaluate and critique music compositions, lyrics, and performances from various perspectives, and to increase their ability to function as music business professionals. The first semester focuses on foundational skills.
Pre: MUS 120, MUS 125 or MUS 325, these courses can be taken concurrently with MUS285
Fall

### MUS 279 (1) Critical Listening for Music Industry Professionals 2: Applications
This course trains students to evaluate and critique music and is a continuation of MUS 285. The second semester focuses on developing skills through case studies.
Pre: MUS 285
Spring

### MUS 280 (1) Social Media in the Music Industry
This course will examine current and potential professional marketing uses of social media in the music industry, including fan-base communication/building, concert promotion, and sales of music and merchandise.
Fall
MUS 318 (0-1) Jazz Combo
Instruction in a small select jazz combo which demonstrates the student’s ability to read and improvise. Audition required.
Pre: MUS 299, Permission
Fall, Spring

MUS 319 (0-1) Ensemble
Small select ensembles performing chamber music repertoire. Audition required.
Pre: MUS 299, Sophomore Review. Permission of instructor
Fall, Spring

MUS 321W (3) Music Literature and History I
An overview of music of the western world from ancient Greece to 1800.
Pre: ENG 101, MUS 131
WI, GE-2
Fall

MUS 322W (3) Music Literature and History II
An overview of music of the western world from 1800 to the present.
Pre: ENG 101, MUS 131
WI, GE-2
Spring

MUS 323 (2) Music Styles before 1820 for the Music Educator
Musical styles of Western culture prior to 1820. There is a particular focus on developing the skills for teaching the content in K-12 teaching.
Pre: MUS 231, MUS 232, ENG 101
Fall

MUS 324 (2) Music Styles after 1820 for the Music Educator
Musical styles of Western culture after 1820. There is a particular focus on developing the skills for teaching the content in K-12 teaching.
Pre: MUS 231, MUS 232, ENG 101
Spring

MUS 325 (3) Pop Music USA 1 (Music Industry)
An overview of the origins of American popular music into the 1950’s. For Music Industry majors.
Pre: Permission
Fall

MUS 326 (3) Pop Music USA 2 (Music Industry)
An overview of the origins of American popular music from the 1950’s to the present. For Music Industry majors.
Pre: Permission
Spring, Summer

MUS 328 (3) Music of the World
Explore the musics of the world and the cultures that they came from. Participation in off-campus musical events (concert/celebration/festival) required.
Variable
GE-6, GE-8
Diverse Cultures - Gold

MUS 329 (3) Women in Music
This course explores the role of women composers, performers, educators and administrators in Western art music.
Diverse Cultures - Purple

MUS 340 (2) Materials and Methods of Teaching Music
Kindergarten and elementary grades. For elementary education majors only.

MUS 341 (2) General Music K-5
Required of all music education majors. Techniques and methods leading to licensure to teach General Music K-5. Music majors only.
Pre: MUS 232

MUS 342 (2) General Music 6-12
Required of all music education majors. Techniques and methods leading to licensure to teach General Music in grades 6-12. Music majors only.
Pre: MUS 131, MUS 132
Variable

MUS 351 (1-3) Private Voice II
Private lessons: 1 credit = 1/2 hour per week, 3 credits = 1 hour per week.
Pre: Upper Level Jury, and consent

MUS 361 (1-3) Private Piano II
Private lessons: 1 credit = 1/2 hour per week, 3 credits = 1 hour per week.
Pre: Upper Level Jury, and consent

MUS 362 (1-3) Private Harpsichord II
Private lessons: 1 credit = 1/2 hour per week, 3 credits = 1 hour per week.
Pre: Upper Level Jury, and consent

MUS 365 (1-3) Private Organ II
Private lessons: 1 credit = 1/2 hour per week, 3 credits = 1 hour per week.
Pre: Upper Level Jury, and consent

MUS 369 (1) Piano Accompanying
Experience in accompanying. Advanced pianists may participate in chamber ensembles. May be repeated.
Pre: Approval of Instructor
Fall, Spring

MUS 371 (1-3) Private Brass
Private lessons: 1 credit = 1/2 hour per week, 3 credits = 1 hour per week.
Pre: Upper Level Jury, and consent

MUS 372 (1-3) Private Reed and Other Instruments
Private lessons: 1 credit = 1/2 hour per week, 3 credits = 1 hour per week.
Pre: Upper Level Jury, and consent

MUS 373 (1-3) Private String Instruments
Private lessons: 1 credit = 1/2 hour per week, 3 credits = 1 hour per week.
Pre: Upper Level Jury, and consent

MUS 374 (1-3) Private Percussion II
Private lessons: 1 credit = 1/2 hour per week, 3 credits = 1 hour per week.
Pre: Upper Level Jury, and consent

MUS 375 (1-3) Private Classical Guitar II
Private lessons: 1 credit = 1/2 hour per week, 3 credits = 1 hour per week.
Pre: Upper Level Jury, and consent

MUS 376 (1-3) Private Instrument II
Private lessons: 1 credit = 1/2 hour per week, 3 credits = 1 hour per week.
Pre: Upper Level Jury, and consent

MUS 377 (2) Instrument Literature & Pedagogy
Topics to be discussed are methods, literature, and teaching techniques for specific wind, percussion, and stringed instruments.

MUS 381 (3) Music Management and Concert Production
This course is designed to acquaint and give specific knowledge with regards to managing a concert production, working with promoters, finding artists, and creating and negotiating contracts.

MUS 382 (1) Practicum in Music Industry
This course will allow students to gain experience in working in the Music Industry field in a supervisory or administrative role. This course must be taken for two semesters to receive proper credit.

MUS 390 (1-6) Study for Honors
Instruction for students in honors program.
Pre: Honors Program Status
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUS 396</td>
<td>0-1 Junior Recital</td>
</tr>
<tr>
<td>MUS 401</td>
<td>Choral Musicianship I</td>
</tr>
<tr>
<td>MUS 402</td>
<td>0-1 Choral Musicianship II</td>
</tr>
<tr>
<td>MUS 411</td>
<td>3 Instrument Musicianship I</td>
</tr>
<tr>
<td>MUS 412</td>
<td>3 Instrument Musicianship II</td>
</tr>
<tr>
<td>MUS 420</td>
<td>3 European Music Travel Tour</td>
</tr>
<tr>
<td>MUS 422</td>
<td>3 Music of the Renaissance</td>
</tr>
<tr>
<td>MUS 423</td>
<td>3 Music of the Baroque Era</td>
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<tr>
<td>MUS 424</td>
<td>3 Music of the Classic Period</td>
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<tr>
<td>MUS 425</td>
<td>3 Music of the 19th Century</td>
</tr>
<tr>
<td>MUS 426</td>
<td>3 Music of the Modern Era</td>
</tr>
<tr>
<td>MUS 431</td>
<td>1-3 Composition</td>
</tr>
<tr>
<td>MUS 432</td>
<td>3 Contemporary Theory</td>
</tr>
<tr>
<td>MUS 433</td>
<td>3 Contrapuntal Techniques</td>
</tr>
<tr>
<td>MUS 434</td>
<td>3 Form and Analysis</td>
</tr>
<tr>
<td>MUS 435</td>
<td>5 Orchestration</td>
</tr>
<tr>
<td>MUS 436</td>
<td>2 Choral Arranging</td>
</tr>
<tr>
<td>MUS 441</td>
<td>2 Music in Early Childhood</td>
</tr>
<tr>
<td>MUS 450</td>
<td>3 Project Development in the Music Industry</td>
</tr>
<tr>
<td>MUS 451</td>
<td>3 Vocal Pedagogy and Literature</td>
</tr>
<tr>
<td>MUS 455</td>
<td>2 Diction for Singers</td>
</tr>
<tr>
<td>MUS 459</td>
<td>2 The Art Song</td>
</tr>
<tr>
<td>MUS 461</td>
<td>3 Piano Pedagogy</td>
</tr>
<tr>
<td>MUS 462</td>
<td>3 Piano Literature</td>
</tr>
<tr>
<td>MUS 465</td>
<td>2 Service Playing</td>
</tr>
<tr>
<td>MUS 466</td>
<td>1 Organ Pedagogy</td>
</tr>
<tr>
<td>MUS 467</td>
<td>3 Organ Literature</td>
</tr>
<tr>
<td>MUS 468</td>
<td>3 Digital Audio Theory and Techniques</td>
</tr>
<tr>
<td>MUS 469</td>
<td>2 Music Promotion</td>
</tr>
<tr>
<td>MUS 470</td>
<td>2 Instrument Repair and Maintenance</td>
</tr>
<tr>
<td>MUS 481</td>
<td>2 Musicianship for Choral Directors</td>
</tr>
<tr>
<td>MUS 482</td>
<td>3 Music in the Marketplace</td>
</tr>
<tr>
<td>MUS 483</td>
<td>2 Legal Aspects of the Music Industry</td>
</tr>
<tr>
<td>MUS 484</td>
<td>3 Music for Choral Directors</td>
</tr>
<tr>
<td>MUS 485</td>
<td>1-4 Selected Topics</td>
</tr>
<tr>
<td>MUS 491</td>
<td>1 In-Service</td>
</tr>
<tr>
<td>MUS 494</td>
<td>1-4 Workshop</td>
</tr>
<tr>
<td>MUS 496</td>
<td>1 Senior Recital</td>
</tr>
<tr>
<td>MUS 498</td>
<td>2 Senior Project</td>
</tr>
<tr>
<td>MUS 499</td>
<td>1-4 Independent Study</td>
</tr>
</tbody>
</table>

**Course Descriptions**

- **MUS 396**: Junior Recital
- **MUS 401**: Choral Musicianship I
- **MUS 402**: Choral Musicianship II
- **MUS 411**: Instrument Musicianship I
- **MUS 412**: Instrument Musicianship II
- **MUS 420**: European Music Travel Tour
- **MUS 422**: Music of the Renaissance
- **MUS 423**: Music of the Baroque Era
- **MUS 424**: Music of the Classic Period
- **MUS 425**: Music of the 19th Century
- **MUS 426**: Music of the Modern Era
- **MUS 431**: Composition
- **MUS 432**: Contemporary Theory
- **MUS 433**: Contrapuntal Techniques
- **MUS 434**: Form and Analysis
- **MUS 435**: Orchestration
- **MUS 436**: Choral Arranging
- **MUS 441**: Music in Early Childhood
- **MUS 450**: Project Development in the Music Industry
- **MUS 451**: Vocal Pedagogy and Literature
- **MUS 455**: Diction for Singers
- **MUS 459**: The Art Song
- **MUS 461**: Piano Pedagogy
- **MUS 462**: Piano Literature
- **MUS 465**: Service Playing
- **MUS 466**: Organ Pedagogy
- **MUS 467**: Organ Literature
- **MUS 468**: Digital Audio Theory and Techniques
- **MUS 470**: Music Promotion
- **MUS 470**: Instrument Repair and Maintenance
- **MUS 481**: Music in the Marketplace
- **MUS 482**: Legal Aspects of the Music Industry
- **MUS 483**: Music for Choral Directors
- **MUS 484**: Selected Topics
- **MUS 491**: In-Service
- **MUS 494**: Workshop
- **MUS 496**: Senior Recital
- **MUS 498**: Senior Project
- **MUS 499**: Independent Study
Nonprofit Leadership
College of Social and Behavioral Science
113 Armstrong Hall • 507-389-1561

Program Coordinator: Keith Luebke, 507-389-5396

The undergraduate Nonprofit Leadership Certificate is a cooperative educational program between the College of Social and Behavioral Science and the College of Allied Health and Nursing. Within these two colleges five departments have a leadership role: Gender and Women’s Studies, Recreation, Parks and Leisure Services; Sociology and Corrections; Social Work; and the Urban and Regional Studies Institute.

This 18-credit certificate is specifically designed to respond to the employment needs and opportunities within one of the fastest growing sectors of the United States economy. The nonprofit leadership certificate is a multidisciplinary program for undergraduate students and nonprofit practitioners interested in gaining knowledge and skills for success and advancement in nonprofit leadership. The certificate is designed to address the following entry-level nonprofit competencies:

- Communication skills;
- Computer/technology literacy skills;
- Historical and philosophical foundations in nonprofit leadership;
- Nonprofit marketing;
- Public policy;
- Fundraising principles and practices;
- Human resource development and nonprofit management; and
- Program planning

These competencies are achieved through the following program requirements.

NONPROFIT LEADERSHIP CERTIFICATE

Major Common Core
NPL 273 Introduction to Nonprofit Sector (3)
NPL 473 Advanced Workshop in Nonprofit Leadership (3)

Major Restricted Electives
Program Planning and Evaluation (choose 3 credits)
GWS 330 Feminist Research and Action (4)
RPLS 376 Program Planning in Rec., Parks, and Leisure Services (3)
SOC 466 Program Planning (3)
SOWK 469 Applied Social Work Research (3)
URBS 413 Urban Program Evaluation (3)

Financial Management and Development (choose 3 credits)
NPL 486 Fundraising for Nonprofits (3)
NPL 488 Financial Management for Nonprofits (3)
RPLS 465 Event Management (3)
URBS 453 Grants Administration (3)

Program Administration (choose 3 credits)
ART 434 Arts Administration (3)
RPLS 473 Administration of Leisure Time Programs (3)
SOC 417 Program Administration (3)
URBS 230 Community Leadership (3)
URBS 230W Community Leadership (3)

Internship (choose 3 credits)
GWS 498 Internship: Community (1-8)
RPLS 497 Internship (3)
SOC 497 Internship: Sociology (1-12)
SOWK 497 Internship (1-10)
URBS 497 Internship (1-12)

Internship Experience
The student desiring a certificate is required to successfully complete a three (3) credit internship in a qualifying not-for-profit organization. The internship will be administered through one of the five sponsoring departments.

NONPROFIT LEADERSHIP MINOR

Minor Common Core
NPL 273 Introduction to Nonprofit Sector (3)
NPL 473 Advanced Workshop in Nonprofit Leadership (3)

Electives
Students choose one course from each of the three following categories and one additional course of their choice to complete the 21 credits requirement of this minor.

Program Planning and Evaluation (choose 3-6 credits)
GWS 330 Feminist Research and Action (4)
RPLS 376 Program Planning in Rec., Parks, and Leisure Services (3)
SOC 466 Program Planning (3)
SOWK 469 Applied Social Work Research (3)
URBS 413 Urban Program Evaluation (3)

Program Administration (choose 3-6 credits)
ART 434 Arts Administration (3)
RPLS 473 Administration of Leisure Time Programs (3)
SOC 417 Program Administration (3)
URBS 230 Community Leadership (3)
URBS 230W Community Leadership (3)

Financial Management and Development (choose 3-6 credits)
NPL 486 Fundraising for Nonprofits (3)
NPL 488 Financial Management for Nonprofits (3)
RPLS 465 Event Management (3)
URBS 453 Grants Administration (3)

Internship (choose 3 credits) with a nonprofit organization
ART 497 Internship (1-6)
GWS 498 Internship: Community (1-8)
RPLS 497 Internship (3)
SOC 497 Internship: Sociology (1-12)
SOWK 497 Internship (1-10)
URBS 497 Internship (1-12)

COURSE DESCRIPTIONS

NPL 273 (3) Introduction to the Nonprofit Sector
Designed as an introduction to the nonprofit sector, this course provides the foundation for students working toward a certificate in Nonprofit Leadership. This workshop addresses the historical and philosophical foundations in nonprofit leadership as well as exploring key leadership issues.
GE-9

NPL 473 (3) Advanced Workshop in Nonprofit Leadership
Designed as the sequel to NPL 273, this course addresses managing operations, developing and managing financial services, and managing people. This course will include a Service-Learning component.

NPL 486 (3) Fundraising for Nonprofits
Designed as an overview to fundraising and development for nonprofit organizations, this course addresses the development of a fundraising plan and attracting donors. There will be an emphasis on organizational outreach using both traditional and new media.
Variable

NPL 488 (3) Financial Management for Nonprofits
Designed as an overview of financial management for nonprofit organizations, this course addresses the integration of mission-driven planning and financial management with an emphasis on tax exemption, accounting systems, financial statements, budgets, and regulatory reporting.
Variable
POLICIES/INFORMATION FOR MAJOR BASIC NURSING PROGRAM

Admission to Major, Basic Nursing Program. Application for admission to the School of Nursing is a separate process and in addition to being admitted to the University. Requirements for application to the nursing major are:
1. completion of at least 30 semester credits
2. a minimum career grade point average of 2.8 on a 4.0 scale
3. minimum grade of “C” in all required prerequisite and support courses

All prerequisite and support courses must be taken for a letter grade; P/N is not acceptable. A prenursing student may repeat a prerequisite class for admission to the School of Nursing once and only once for the purpose of improving a “C” or lower grade.

Students in the applicant pool are ranked ordered according to a prenursing GPA figured using grades earned in English Composition, Introduction to Cultural Geography, Human Anatomy, Human Physiology, Chemistry of Life Processes, Courage, Caring, and Teambuilding, Elementary Statistics, and Human Development. All eight of these courses must be completed at the time of application.

Students are considered for admission into program based on GPA for the eight core prerequisite courses as well as composite score on the Evolve Reach Admission Assessment Exam. The Evolve Reach Admission Assessment Exam includes math, grammar, reading comprehension, vocabulary, anatomy & physiology, and chemistry and must be completed at the time of application.

Applicants must also successfully complete the following support courses prior to admission into the nursing program: Microbiology, Pathophysiology for Healthcare Professionals, Pharmacology for Healthcare Professionals, Relationship-based Care in Nursing Practice, Nutrition for Allied Health Professionals, and Psychology. A grade of “C” or better must be achieved in these courses for admission.

In addition to the above criteria, an interview may be required in the application process.

GPA Policy. A grade of “C” or better must be achieved in all prerequisite and support courses. Nursing courses are sequentially arranged and progression is based on successful completion of the prerequisite nursing course(s). All classroom courses are offered for grade only and all clinical courses are offered for P/N only. To continue in the nursing major, all students must achieve and maintain at least a “C” or “P” grade in each required nursing course. A grade of “D”, “F”, or NC in a nursing course is unacceptable, and the student must repeat the course to continue in the nursing major. In addition, it is required that each student maintain at least a “C” (2.0) average in all courses completed.

P/N Grading Policy. All of the pre-nursing and “major” courses must be taken for a letter grade; P/N is not acceptable. A grade of “C” must be achieved.

The School of Nursing utilizes a variety of health-care agencies for students’ clinical experiences including the Twin Cities. All clinical experiences are planned and conducted by the School of Nursing faculty. The student is responsible for travel to clinical agencies and for housing arrangements when necessary. Criminal background studies must be completed each year prior to beginning clinical courses.

Transfer Students. It is often possible for students to complete the required pre-nursing curriculum at another college or university and then have these courses and credits transferred to Minnesota State Mankato. Basic Nursing Program courses begin both fall and spring semesters.

Standardized Exams. All students enrolled in the School of Nursing will be required to take standardized achievement examinations at periodic intervals during their program. Exam results are used for student self-evaluation as well as program evaluation of learning outcomes.

Health. All nursing students are required to maintain a program of yearly health examinations and immunizations. Students will be advised of these requirements and must assume responsibility for meeting the health requirement before starting clinical experiences each year, beginning with the sophomore year.

Expenses. Each student is responsible for costs related to travel for nursing course experiences, student uniforms, health examinations, immunizations, and Mantoux; health insurance, malpractice insurance coverage, and CPR certification. In the case of accidental exposure to blood and body fluids, students are responsible for testing and follow-up care costs.
GENERAL EDUCATION REQUIREMENTS FOR
BASIC NURSING PROGRAM

Students in the Basic Nursing Program are required to complete 40 credits of General Education courses in 11 Goal Areas for graduation.

NURSING BS
Degree completion = 120 credits

Required General Education

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 270</td>
<td>Microbiology (4)</td>
</tr>
<tr>
<td>CHEM 111</td>
<td>Chemistry of Life Process Part II (Organic &amp; Biochemistry) (5)</td>
</tr>
<tr>
<td>ENG 101</td>
<td>Composition (4)</td>
</tr>
<tr>
<td>GEOG 103</td>
<td>Introductory Cultural Geography (3)</td>
</tr>
<tr>
<td>KSP 235</td>
<td>Human Development (3)</td>
</tr>
<tr>
<td>NURS 101W</td>
<td>Courage, Caring, and Team Building (3)</td>
</tr>
<tr>
<td>PSYC 101</td>
<td>Introduction to Psychological Science (4)</td>
</tr>
<tr>
<td>STAT 154</td>
<td>Elementary Statistics (3)</td>
</tr>
</tbody>
</table>

Pre-requisite to the Major

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 220</td>
<td>Human Anatomy (4)</td>
</tr>
<tr>
<td>BIOL 330</td>
<td>Principles of Human Physiology (4)</td>
</tr>
<tr>
<td>FCS 242</td>
<td>Nutrition for Healthcare Professionals (3)</td>
</tr>
<tr>
<td>NURS 282</td>
<td>Pathophysiology for Healthcare Professionals (3)</td>
</tr>
<tr>
<td>NURS 284</td>
<td>Pharmacology for Healthcare Professionals (3)</td>
</tr>
<tr>
<td>NURS 286</td>
<td>Relationship-based Care in Nursing Practice (3)</td>
</tr>
</tbody>
</table>

Major Emphasis

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 333</td>
<td>Professional Nursing (3)</td>
</tr>
<tr>
<td>NURS 334</td>
<td>Physiologic Integrity I (4)</td>
</tr>
<tr>
<td>NURS 335</td>
<td>Family and Societal Nursing Inquiry (3)</td>
</tr>
<tr>
<td>NURS 336</td>
<td>Assessment and Nursing Procedures (5)</td>
</tr>
<tr>
<td>NURS 363</td>
<td>Critical Inquiry in Nursing (2)</td>
</tr>
<tr>
<td>NURS 364</td>
<td>Physiologic Integrity II (4)</td>
</tr>
<tr>
<td>NURS 365</td>
<td>Nursing Care of Families in Transition I (7)</td>
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<tr>
<td>NURS 366</td>
<td>Quality, Safety, and Informatics in Nursing Practice (3)</td>
</tr>
<tr>
<td>NURS 433</td>
<td>Community Oriented Nursing Inquiry (4)</td>
</tr>
<tr>
<td>NURS 434</td>
<td>Physiologic Integrity III (4)</td>
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<tr>
<td>NURS 435</td>
<td>Nursing Care of Families in Transition II (3)</td>
</tr>
<tr>
<td>NURS 436</td>
<td>Psychosocial Integrity (5)</td>
</tr>
<tr>
<td>NURS 463</td>
<td>Nursing Leadership and Management (3)</td>
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<tr>
<td>NURS 464</td>
<td>Physiologic Integrity IV (3)</td>
</tr>
<tr>
<td>NURS 465</td>
<td>Nursing Care of Families in Crisis (2)</td>
</tr>
<tr>
<td>NURS 466</td>
<td>Professional Role Integration (4)</td>
</tr>
</tbody>
</table>

RN BACCALAUREATE COMPLETION

Pre-requisites to the Major

Transfer Credits: In accordance with the statewide MN Articulation Agreement, 30 semester nursing credits and 30 semester non-nursing credits are transferred for RNs.

Admission to RN Baccalaureate Completion Program. Requirements for admission to the RN Baccalaureate Completion Program are:

1. Proof of active unrestricted RN license,
2. Completion of at least 30 college semester credits,
3. A minimum career grade point average (GPA) of 2.8 on a 4.0 scale,
4. Minimum grade of “C” in all previous courses,
5. College Statistics Course.

Other requirements:

1. Completion of RN Baccalaureate Completion Program Application
2. Completion of Student Health Form
3. CPR certification
4. Health insurance coverage

Students must be admitted into the School of Nursing prior to taking any nursing courses. RNs accepted during the fall and spring semester. The application for RN Baccalaureate Completion Program admission may be obtained from the School of Nursing website at http://ahn.mnsu.edu/nursing.

Major Common Core

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 320</td>
<td>Critical Inquiry and Evidence-based Practice for RNs (4)</td>
</tr>
<tr>
<td>NURS 362</td>
<td>Family and Societal Nursing for RNs (4)</td>
</tr>
<tr>
<td>NURS 382</td>
<td>Provider of Care for RNs (4)</td>
</tr>
<tr>
<td>NURS 402</td>
<td>Psychosocial and Interprofessional Communication for RNs (4)</td>
</tr>
<tr>
<td>NURS 412</td>
<td>Leadership and Management Principles for RNs (4)</td>
</tr>
<tr>
<td>NURS 420</td>
<td>Informatics, Quality, and Safety in Nursing Practice for RNs (4)</td>
</tr>
<tr>
<td>NURS 482</td>
<td>Provider of Care II for RNs (6)</td>
</tr>
</tbody>
</table>

Major Unrestricted Electives

None are required. May be taken to earn additional credits.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>NURS 300</td>
<td>Transition into Professional Nursing Practice for RNs (3)</td>
</tr>
<tr>
<td>NURS 342</td>
<td>Gerontological Nursing for RN’s (4)</td>
</tr>
<tr>
<td>NURS 352</td>
<td>Altered Human Functioning for RNs (3)</td>
</tr>
<tr>
<td>NURS 401</td>
<td>Cultural Immersion in Nursing Practice for RNs (3)</td>
</tr>
<tr>
<td>NURS 452</td>
<td>Advanced Health Assessment for RNs (3)</td>
</tr>
</tbody>
</table>

LPN OPTION

The LPN option for completing the BS Degree in Nursing is available only with a sufficient number of applications. Please call the School of Nursing for specific information.

Required Minor: None.

COURSE DESCRIPTIONS

NURS 101W (3) Courage, Caring, and Team Building

This experiential course will prepare students for effective participation in a variety of groups. Students can expect to experience various group member roles through structured activities within the Minnesota State Mankato culture and with diverse cultures. Students will learn about risk taking, trust building, cooperation/collaboration in groups and caring for self and others in the larger community.

Variable WI, GE-11

NURS 282 (3) Pathophysiology for Healthcare Professionals

A holistic perspective of pathophysiological processes and their impact on body systems and overall human functioning. Focuses on the risk factors, pathophysiology and clinical manifestations of physiologic disease processes in humans.

Pre: BIOL 220, BIOL 330

Fall, Spring

NURS 284 (3) Pharmacology for Healthcare Professionals

Introduction to basic pharmacologic concepts with an emphasis on implications of drug therapy.

Pre: BIOL 220, BIOL 330, CHEM 111

Coreq: BIOL 270

Fall, Spring

NURS 286 (3) Relationship-Based Care in Nursing Practice

Provides an introduction to the profession of nursing and explores relationship-based care in nursing practice. Provides an overview of concepts related to establishing caring and healing environments, developing therapeutic and professional relationships, and promoting patient and family-centered care.

Fall, Spring, Summer

NURS 300 (3) Transition into Professional Nursing Practice for RNs

Introduces fundamental professional nursing concepts: roles of professional nurse and the interprofessional team, nursing’s impact on the delivery of healthcare, and accountability for behaviors. Theoretical perspectives on professional nursing and the concepts of lifelong learning, professional development and self-renewal.

Variable

NURS 320 (4) Critical Inquiry and Evidence-based Practice for RNs

Introduction to fundamental theories, concepts, evidence, and competencies pertaining to scientific inquiry, development of nursing knowledge, evidence-based and informed practice, and research utilization in nursing practice.

Pre: RN Licensure, completion of general education requirement.

Fall, Spring, Summer
Nursing continued

NURS 333 (3) Professional Nursing
Introduces concepts fundamental to professional nursing: roles of professional nurse and interprofessional team members, regulatory guidelines, standards of practice, therapeutic communication, and cultural sensitivity. Theoretical perspectives on professional nursing and the concepts of persons, health and environment are introduced.
Fall, Spring

NURS 334 (4) Physiologic Integrity I
Focuses on global health concerns and related health promotion and prevention and early detection of alterations in physiological integrity. Includes didactic, simulation, and experiential learning components.
Fall, Spring

NURS 335 (3) Family and Societal Nursing Inquiry
Critical inquiry into the nursing care of family and society in the context of diverse cultures. Explores concepts related to family and society as clients, the family and societal health experience, and nursing strategies to foster family and societal care.
Fall, Spring

NURS 336 (5) Assessment and Nursing Procedures
A focus on assessment of the healthy family and the relationship of health assessment to prevention and early detection of disease, incorporating the processes of interviewing, history-taking, and physical assessment. A laboratory component integrating nursing skills and procedures is included.
Fall, Spring

NURS 342 (4) Gerontological Nursing for RNs
Examines society and aging, focusing on the political, social, economic, ethical and moral issues that have implications for an aging society and on the nurse’s role in assisting older adults in realizing their potential for continued growth and better health.
Fall, Spring, Summer

NURS 352 (3) Altered Human Functioning for RNs
Explores pathophysiology concepts to enhance the RN student’s understanding of illness and health. Identifies rational for clinical judgment and therapeutic intervention in disease conditions. Analyzes psychosocial and family concepts that emerge with pathophysiological alterations.
Fall, Spring

NURS 362 (4) Family and Societal Nursing for RNs
Examination of family level approaches that promote health while exploring concepts of family as client, family health experience, and nurse–family relationships. Nursing strategies to enhance family level care during acute, chronic and critical illnesses are analyzed.
Pre: RN Licensure
Fall, Spring, Summer

NURS 363 (2) Critical Inquiry in Nursing
Introduction to fundamental theories, concepts, evidence, and competencies pertaining to scientific inquiry, development of nursing knowledge, evidence-based and informed practice, and research utilization in nursing practice.
Fall, Spring

NURS 364 (4) Physiologic Integrity II
Focuses on nursing management of acute alterations in physiological integrity. Includes didactic, simulation, and experiential learning components.
Pre: NURS 333, NURS 334, NURS 335, NURS 336
Fall, Spring

NURS 365 (7) Nursing Care of Families in Transition I
Focuses on the critical inquiry of the physiological and psychosocial changes occurring with families during the childbearing/childrearing period. Includes didactic and experiential learning designed to promote family centered nursing care during the childbearing/childrearing period.
Pre: NURS 333, NURS 334, NURS 335, NURS 336
Fall, Spring

NURS 366 (3) Quality, Safety, and Informatics in Nursing Practice
Focus on identification, implementation, and evaluation of patient/family quality and safety measures. Includes quality movement history and evolution, current quality of care issues, research and innovations, intervention strategies, and instruments; with an analysis of health care quality management system models.
Fall, Spring

NURS 382 (4) Provider of Care I for RNs
Explores the nurse’s role in interacting with and providing care to families of diverse religious, ethnic and cultural backgrounds across the lifespan. Examines spirituality and the integration of complementary and alternative therapies with conventional practices to provide holistic care.
Pre: RN Licensure
Fall, Spring

NURS 401 (3) Cultural Immersion in Nursing Practice for RNs
An experiential immersion into the healthcare needs of the client and family within another culture with a focus on nursing interventions to promote health. An intense induction into cultural humility will enhance awareness and promote an appreciation for global health.
Variable

NURS 402 (4) Psychosocial and Interprofessional Communication for RNs
Communication is an essential skill for professional RNs. This course will cover professional communication strategies, including patient and family interactions, dealing with mental-health issues, effective inter-professional communication, and issues unique utilizing technology and information systems.
Pre: RN Licensure
Fall, Spring, Summer

NURS 412 (4) Leadership and Management Principles for RNs
This course explores leadership and management principles and concepts necessary for the professional nurse to function effectively in a changing health care system incorporating collaborative strategies, technology, financial issues, and the complexity of care.
Pre: RN Licensure
Fall, Spring, Summer

NURS 420 (4) Informatic, Quality, and Safety in Nursing Practice for RNs
Enhance the role of the nurse in the promotion of quality and safety and the use of national guidelines, technology, and informatics to create a culture of quality and safety, prevent and reduce medical errors, and support health care reimbursement.
Fall, Spring, Summer

NURS 428 (2) Nursing Elective
Several sections on various topics not included in the curriculum. Each section is different and expands on the nursing major courses. Examples of topics are ethical dimensions, laughter and wellness in nursing practice, dementia, rural nursing, cancer care, etc.
Pre: As appropriate for each section.
Variable

NURS 433 (4) Community Oriented Nursing Inquiry
Think critically about the roles and responsibilities of the community oriented nurse in the context of disease prevention, health promotion, protection, maintenance, restoration, and surveillance. Examine foundational pillars of assurance, assessment and policy development to support relationship based nursing care.
Pre: NURS 363, NURS 364, NURS 365, NURS 366
Fall, Spring

NURS 434 (4) Physiologic Integrity III
Focuses on nursing management of chronic alterations in physiological integrity. Includes didactic, simulation, and experiential learning components.
Pre: NURS 363, NURS 364, NURS 365, NURS 366
Fall, Spring

NURS 435 (3) Nursing Care of Families in Transition II
Focuses on the critical inquiry of families’ health and illness experiences. Includes didactic and experiential learning designed to promote family centered nursing care during transitions within child, teenage, adult and older adult family transitions.
Pre: NURS 363, NURS 364, NURS 365, NURS 366
Fall, Spring
**Philosophy**

*College of Arts & Humanities*

*Department of Philosophy*

227 Armstrong Hall • 507-389-2012

Chair: Brandon Cooke

Brandon Cooke, John Humphrey, Richard Liebendorfer, Joshua Preiss, Julie Wulpmeyer, Sun Yu

Like no other discipline, through its methodical scrutiny of the entire network of our beliefs, philosophy reveals and clarifies our fundamental ideas and principles. Recognizing that anyone who systematically searches for knowledge may be considered a philosopher, the highest degree in the sciences and humanities which the modern university grants is the Ph.D.- the doctor of philosophy.

Because it engages in a comprehensive analysis of the theoretical foundations of other disciplines, philosophy serves as an excellent pre-professional major. The study of philosophy provides the student with a wealth of analytical skills, making it one of the preferred pre-law and pre-med majors. The insights and perspectives of philosophy prepare leaders of industry, politicians, theologians, and comedians alike. Through philosophy, the continued conversation that constitutes our culture is kept alive.

**NURSING CONTINUED**

NURS 436 (5) Psychosocial Integrity
Emphasizes the function and responsibility of nursing in promoting and maintaining the psychosocial integrity of all people. Application of communication and caring through therapeutic relationship and evidence based nursing actions in the care and treatment of common clinical conditions.
Pre: NURS 363, NURS 364, NURS 365, NURS 366, PSYC 101
Fall, Spring

NURS 452 (3) Advanced Health Assessment for RNs
This course offers theoretical and simulated clinical practice to develop advanced skills in obtaining a health history and physical assessment throughout the life span, inclusive of specific topics including culture, aging, and caring for the health care needs of individuals.
Fall, Spring

NURS 463 (3) Nursing Leadership and Management
Focuses on nursing leadership and management skills, organizational structure, care processes; health policy and regulatory processes, quality improvement; and patient/family and consumer advocacy.
Pre: NURS 433, NURS 434, NURS 435, NURS 436
Fall, Spring

NURS 464 (3) Physiologic Integrity IV
Focuses on nursing management of multi-system alterations in physiologic integrity. Includes didactic, simulation, and experiential learning components.
Pre: NURS 433, NURS 434, NURS 435, NURS 436
Fall, Spring

NURS 465 (2) Nursing Care of Families in Crisis
An examination of family dynamics during crisis and the role of the nurse in caring for families in crisis who are experiencing complex alterations in physiologic integrity.
Pre: NURS 433, NURS 434, NURS 435, NURS 436
Fall, Spring

NURS 466 (4) Professional Role Integration
Focuses on experiential learning which promotes the integration of previous learning and the greater development of the roles of the baccalaureate generalist nurse as a provider of care, designer/manager/coordinator of care, and member of a profession.
Pre: NURS 433, NURS 434, NURS 435, NURS 436
Coreq: NURS 463, NURS 464, NURS 465
Fall, Spring

NURS 472 (5) Provider of Care II
This capstone course focuses on the community as the client and integrates previously learned theory and principles of nursing.
Pre: NURS 382
Spring

NURS 473 (4) Provider of Care II Clinical
Health promotion, disease prevention, and health education are operationalized as principal interventions within the context of community health.
Pre: NURS 472 or concurrent
Spring

NURS 482 (6) Provider of Care II for RNs
Synthesis of nursing and public health practice within the community. Nursing care of individuals, families, and groups is addressed within context of promoting, maintaining, and restoring health. Health promotion, disease prevention and health education are interventions to reduce health disparities.
Pre: NURS 382, RN Licensure
Fall, Spring, Summer

NURS 490 (1-3) Workshop
Workshop(s) with various topics and titles.
Variable

NURS 491 (1-5) In-Service
Workshop(s) with various topics and titles.
Variable

NURS 497 (1) Summer Internship
This course provides clinical based learning opportunities to encourage application of theory and research based knowledge in clinical practice. Students will engage in experiences to enhance the development of their professional nursing role.

NURS 499 (1-5) Individual Study
Individual study according to outcomes developed by faculty and student(s).
Variable

**POLICIES/INFORMATION**

Admission to Major is granted by the department. Minimum university admission requirements are:
- a minimum of 32 earned semester credit hours.
- a minimum cumulative GPA of 2.00 (“C”).

Contact the department for application procedures.

GPA Policy. None.

P/N Grading Policy. The P/N grading system applies to all courses, but majors and minors may take 300- or 400-level courses in philosophy for P/N credit only with the consent of the department.
PHILOSOPHY CONTINUED

PHILOSOPHY BA
Degree completion = 120 credits

Major Common Core
PHIL 334W History of Philosophy: Classical Philosophy (3)
PHIL 336W History of Philosophy: Renaissance & Modern Philosophy (3)
PHIL 495 Senior Thesis I (2)
PHIL 496 Senior Thesis II (1)

Logic Requirement (choose 3 credits)
PHIL 110 Logic and Critical Thinking (3)
PHIL 311 Symbolic Logic (3)

Major Restricted Electives
Historical Period (choose 3 credits from the following)
PHIL 337 19th Century Philosophy (3)
PHIL 338 American Philosophy (3)
PHIL 358W Eastern Philosophy (3)
PHIL 400 Philosophy of Kant (3)
PHIL 437 Contemporary Philosophy (3)

Values (choose 3 credits from the following)
PHIL 120W Introduction to Ethics (3)
PHIL 205W Culture, Identity, and Diversity (3)
PHIL 222W Medical Ethics (3)
PHIL 224W Business Ethics (3)
PHIL 226W Environmental Ethics (3)
PHIL 240W Law, Justice & Society (3)
PHIL 321W Social & Political Philosophy (3)
PHIL 322W Ethical Theory (3)
PHIL 440 Philosophy of Law (3)
PHIL 460 Philosophy of the Arts (3)

Other Graduation Requirements

Required for Bachelor of Arts (BA) degree ONLY: Language (8 credits)

Required Minor: Yes. Any.

PHILOSOPHY BS
Degree completion = 120 credits

Major Common Core
PHIL 334W History of Philosophy: Classical Philosophy (3)
PHIL 336W History of Philosophy: Renaissance & Modern Philosophy (3)
PHIL 495 Senior Thesis I (2)
PHIL 496 Senior Thesis II (1)

Logic Requirement (choose 3 credits)
PHIL 110 Logic and Critical Thinking (3)
PHIL 311 Symbolic Logic (3)

Major Restricted Electives
Historical Period (choose 3 credits from the following)
PHIL 337 19th Century Philosophy (3)
PHIL 338 American Philosophy (3)
PHIL 358W Eastern Philosophy (3)
PHIL 400 Philosophy of Kant (3)
PHIL 437 Contemporary Philosophy (3)

Values (choose 3 credits from the following)
PHIL 120W Introduction to Ethics (3)
PHIL 205W Culture, Identity, and Diversity (3)
PHIL 222W Medical Ethics (3)
PHIL 224W Business Ethics (3)
PHIL 226W Environmental Ethics (3)
PHIL 240W Law, Justice & Society (3)
PHIL 321W Social & Political Philosophy (3)
PHIL 322W Ethical Theory (3)
PHIL 323W Philosophy of Economics (3)
PHIL 440 Philosophy of Law (3)
PHIL 460 Philosophy of the Arts (3)

CRITICAL THINKING CERTIFICATE

The Critical Thinking certificate program is a non-degree program targeted to students enrolled in Minnesota State Mankato. The Program provides students with the training in critical thinking skills and issues them Critical Thinking Certificates which will prove to be useful credentials for their active roles in a wide variety of academic, professional and commercial workplaces. This undergraduate program is intended for those interested in the critical, analytical and philosophical dimensions of business, social science, natural science, arts, humanities or history. Upon completion of the 12 unit program an Undergraduate Certificate will be awarded. The program is open to currently enrolled students as well as those who are not currently enrolled but meet undergraduate admission requirements.

Major Common Core (choose 3 credits)
PHIL 110 Logic and Critical Thinking (3)
PHIL 112 Logic of Scientific Method (3)

Major Restricted Electives
Students must take two courses (6 credits) from one of the following five areas.

276
For those interested in the critical, analytical and philosophical dimensions of natural science. (choose 3 credits)

<table>
<thead>
<tr>
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<tr>
<td>PHIL 101W</td>
<td>Philosophical Problem: The Mind-Body Problem (3)</td>
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<tr>
<td>PHIL 420</td>
<td>Epistemology (3)</td>
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<td>PHIL 430</td>
<td>Metaphysics (3)</td>
</tr>
<tr>
<td>PHIL 474</td>
<td>Philosophy of the Mind (3)</td>
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<tr>
<td>PHIL 475</td>
<td>Philosophical Issues in Cognitive Science (3)</td>
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<tr>
<td>PHIL 476</td>
<td>Philosophy of Perception (3)</td>
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<tr>
<td>PHIL 480</td>
<td>Philosophy of Science (3)</td>
</tr>
<tr>
<td>PHIL 481</td>
<td>Philosophy of Biology (3)</td>
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</table>

AREA 2: For those interested in the critical, analytical and philosophical dimensions of the humanities. (choose 6 credits)

<table>
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<td>PHIL 115W</td>
<td>Philosophy of Race, Class and Gender (3)</td>
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<tr>
<td>PHIL 205W</td>
<td>Introduction to Ethics (3)</td>
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<tr>
<td>PHIL 205W</td>
<td>Culture, Identity, and Diversity (3)</td>
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<tr>
<td>PHIL 358W</td>
<td>Eastern Philosophy (3)</td>
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<tr>
<td>PHIL 361</td>
<td>Philosophy of Religion (3)</td>
</tr>
<tr>
<td>PHIL 445</td>
<td>Feminist Philosophy (3)</td>
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<td>PHIL 455</td>
<td>Existentialism &amp; Phenomenology (3)</td>
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<td>PHIL 460</td>
<td>Philosophy of the Arts (3)</td>
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<td>PHIL 465</td>
<td>Philosophy of Film (3)</td>
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<td>PHIL 476</td>
<td>Philosophy of Perception (3)</td>
</tr>
<tr>
<td>PHIL 482</td>
<td>Philosophy of Social Science (3)</td>
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</tbody>
</table>

AREA 3: For those interested in the critical, analytical and philosophical dimensions of social science. (choose 6 credits)

<table>
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<tbody>
<tr>
<td>PHIL 115W</td>
<td>Philosophy of Race, Class and Gender (3)</td>
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<td>PHIL 205W</td>
<td>Culture, Identity, and Diversity (3)</td>
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<tr>
<td>PHIL 240W</td>
<td>Law, Justice &amp; Society (3)</td>
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<tr>
<td>PHIL 321W</td>
<td>Social &amp; Political Philosophy (3)</td>
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<tr>
<td>PHIL 322W</td>
<td>Ethical Theory (3)</td>
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<td>Existentialism &amp; Phenomenology (3)</td>
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<tr>
<td>PHIL 476</td>
<td>Philosophy of Perception (3)</td>
</tr>
<tr>
<td>PHIL 482</td>
<td>Philosophy of Social Science (3)</td>
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</tbody>
</table>

AREA 4: For those interested in the critical, analytical and philosophical dimensions of history. (choose 6 credits)

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>PHIL 323W</td>
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<tr>
<td>PHIL 334W</td>
<td>History of Philosophy: Classical Philosophy (3)</td>
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<td>PHIL 336W</td>
<td>History of Philosophy: Renaissance &amp; Modern Philosophy (3)</td>
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<tr>
<td>PHIL 337</td>
<td>19th Century Philosophy (3)</td>
</tr>
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<td>PHIL 338</td>
<td>American Philosophy (3)</td>
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<td>PHIL 358W</td>
<td>Eastern Philosophy (3)</td>
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<td>PHIL 437</td>
<td>Contemporary Philosophy (3)</td>
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<td>PHIL 455</td>
<td>Existentialism &amp; Phenomenology (3)</td>
</tr>
<tr>
<td>PHIL 482</td>
<td>Philosophy of Social Science (3)</td>
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AREA 5: For those interested in the critical, analytical and philosophical dimensions of business (choose 6 credits)

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<tbody>
<tr>
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<tr>
<td>PHIL 110</td>
<td>Logic and Critical Thinking (3)</td>
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<tr>
<td>PHIL 112</td>
<td>Logic of Scientific Method (3)</td>
</tr>
<tr>
<td>PHIL 115W</td>
<td>Philosophy of Race, Class and Gender (3)</td>
</tr>
<tr>
<td>PHIL 120W</td>
<td>Introduction to Ethics (3)</td>
</tr>
<tr>
<td>PHIL 205W</td>
<td>Culture, Identity, and Diversity (3)</td>
</tr>
<tr>
<td>PHIL 224W</td>
<td>Business Ethics (3)</td>
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<tr>
<td>PHIL 226W</td>
<td>Environmental Ethics (3)</td>
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<tr>
<td>PHIL 321W</td>
<td>Social &amp; Political Philosophy (3)</td>
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<td>PHIL 322W</td>
<td>Ethical Theory (3)</td>
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<td>PHIL 323W</td>
<td>Philosophy of Economics (3)</td>
</tr>
<tr>
<td>PHIL 440</td>
<td>Philosophy of Law (3)</td>
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**PHILOSOPHY MINOR (18 credits)**

**Required for Minor**

<table>
<thead>
<tr>
<th>COURSE</th>
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<tbody>
<tr>
<td>PHIL 334W</td>
<td>History of Philosophy: Classical Philosophy (3)</td>
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<tr>
<td>PHIL 336W</td>
<td>History of Philosophy: Renaissance &amp; Modern Philosophy (3)</td>
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<tr>
<td>PHIL 337</td>
<td>19th Century Philosophy (3)</td>
</tr>
<tr>
<td>PHIL 338</td>
<td>American Philosophy (3)</td>
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<tr>
<td>PHIL 358W</td>
<td>Eastern Philosophy (3)</td>
</tr>
<tr>
<td>PHIL 437</td>
<td>Contemporary Philosophy (3)</td>
</tr>
<tr>
<td>PHIL 455</td>
<td>Existentialism and Phenomenology (3)</td>
</tr>
</tbody>
</table>

**Required Electives**

(choose a minimum of 9 additional Philosophy credits from the following)

<table>
<thead>
<tr>
<th>COURSE</th>
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<tbody>
<tr>
<td>PHIL 337</td>
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<tr>
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<tr>
<td>PHIL 358W</td>
<td>Eastern Philosophy (3)</td>
</tr>
<tr>
<td>PHIL 361</td>
<td>Philosophy of Religion (3)</td>
</tr>
<tr>
<td>PHIL 410</td>
<td>Philosophy of Language (3)</td>
</tr>
<tr>
<td>PHIL 437</td>
<td>Contemporary Philosophy (3)</td>
</tr>
<tr>
<td>PHIL 440</td>
<td>Philosophy of Law (3)</td>
</tr>
<tr>
<td>PHIL 450</td>
<td>Special Topics (1-3)</td>
</tr>
<tr>
<td>PHIL 455</td>
<td>Existentialism &amp; Phenomenology (3)</td>
</tr>
<tr>
<td>PHIL 460</td>
<td>Philosophy of the Arts (3)</td>
</tr>
<tr>
<td>PHIL 474</td>
<td>Philosophy of the Mind (3)</td>
</tr>
<tr>
<td>PHIL 480</td>
<td>Philosophy of Science (3)</td>
</tr>
<tr>
<td>PHIL 490</td>
<td>Workshop (1-6)</td>
</tr>
<tr>
<td>PHIL 491</td>
<td>In-Service (1-6)</td>
</tr>
<tr>
<td>PHIL 499</td>
<td>Individual Study (1-6)</td>
</tr>
</tbody>
</table>

**CRITICAL THINKING MINOR**

Critical thinking skill is the ability to construct, evaluate and explain our thoughts and our views of the world in a logical and rational manner. This skill assists us to analyze, understand, and respond others’ thoughts correctly and efficiently. The Critical Thinking Minor is intended for students interested in the critical, analytical and philosophical dimensions of business, social science, natural science, arts, humanities or history. The program provides them with the training in critical and philosophical thinking skills so as to enable each of them to play an active role in a wide variety of academic, professional or commercial workplaces.

**Core (choose 3 credits)**

<table>
<thead>
<tr>
<th>COURSE</th>
<th>TITLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHIL 110</td>
<td>Logic and Critical Thinking (3)</td>
</tr>
<tr>
<td>PHIL 112</td>
<td>Logic of Scientific Method (3)</td>
</tr>
</tbody>
</table>

**Elective**

Students must take one course (3 Credits) from any courses that the Philosophy Department offers.

In addition, students must take four courses (12 Credits) from one of the following five areas. (Substitution may be made for the following requirements with permission of the chair or the undergraduate advisor of the Philosophy Department.)

**AREA 1:** For those interested in the critical, analytical and philosophical dimensions of natural science (choose 12 credits from the following)

<table>
<thead>
<tr>
<th>COURSE</th>
<th>TITLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHIL 101W</td>
<td>Philosophical Problem: The Mind-Body Problem (3)</td>
</tr>
</tbody>
</table>
PHIL 420 Epistemology (3)
PHIL 430 Metaphysics (3)
PHIL 474 Philosophy of the Mind (3)
PHIL 475 Philosophical Issues in Cognitive Science (3)
PHIL 476 Philosophy of Perception (3)
PHIL 480 Philosophy of Science (3)
PHIL 481 Philosophy of Biology (3)

AREA 2: For those interested in the critical, analytical and philosophical dimensions of the humanities
(choose 12 credits from the following list). At least 9 credits must be upper division (300-400 level).
PHIL 115W Philosophy of Race, Class and Gender (3)
PHIL 120W Introduction to Ethics (3)
PHIL 205W Culture, Identity, and Diversity (3)
PHIL 358W Eastern Philosophy (3)
PHIL 361 Philosophy of Religion (3)
PHIL 445 Feminist Philosophy (3)
PHIL 455 Existentialism & Phenomenology (3)
PHIL 460 Philosophy of the Arts (3)
PHIL 465 Philosophy of Film (3)
PHIL 476 Philosophy of Perception (3)
PHIL 482 Philosophy of Social Science (3)

AREA 3: For those interested in the critical, analytical and philosophical dimensions of social science
(choose 12 credits from the following list). At least 9 credits must be upper division (300-400 level).
PHIL 115W Philosophy of Race, Class and Gender (3)
PHIL 205W Culture, Identity, and Diversity (3)
PHIL 240W Law, Justice & Society (3)
PHIL 321W Social & Political Philosophy (3)
PHIL 322W Ethical Theory (3)
PHIL 420 Epistemology (3)
PHIL 440 Philosophy of Law (3)
PHIL 445 Feminist Philosophy (3)
PHIL 455 Existentialism & Phenomenology (3)
PHIL 476 Philosophy of Perception (3)
PHIL 482 Philosophy of Social Science (3)

AREA 4: For those interested in the critical, analytical and philosophical dimensions of history
(choose 12 credits from the following).
PHIL 323W Philosophy of Economics (3)
PHIL 334W History of Philosophy: Classical Philosophy (3)
PHIL 336W History of Philosophy: Renaissance and Modern Philosophy (3)
PHIL 337 19th Century Philosophy (3)
PHIL 338 American Philosophy (3)
PHIL 358W Eastern Philosophy (3)
PHIL 437 Contemporary Philosophy (3)
PHIL 440 Philosophy of Law (3)
PHIL 455 Existentialism & Phenomenology (3)
PHIL 482 Philosophy of Social Science (3)

AREA 5: For those interested in the critical, analytical and philosophical dimensions of business
(choose 12 credits from the following list). At least 9 credits must be upper division (300-400 level).
PHIL 120W Introduction to Ethics (3)
PHIL 222W Medical Ethics (3)
PHIL 224W Business Ethics (3)
PHIL 226W Environmental Ethics (3)
PHIL 321W Social & Political Philosophy (3)
PHIL 322W Ethical Theory (3)
PHIL 323W Philosophy of Economics (3)
PHIL 440 Philosophy of Law (3)

ETHICS MINOR

Ethics is concerned with some of our deepest values and commitments. Considerations of right and wrong, of good and bad, permeate our public and private lives. The Ethics Minor provides the opportunity to investigate theoretical and applied ethics in a rigorous and deep way. This minor will be of special interest to students planning careers in the professions, including business, medicine, law, and others. Students completing the minor will develop a deeper reflective understanding of ethical values, an awareness of the history of ethical thought, an enhanced sense of our shared human values, and the ability to understand and critically evaluate the complex ethical issues of our time.

Required Core
PHIL 120 Introduction to Ethics (3)
PHIL 322 Ethical Theory (3)
(choose one from the following 3 credits)
PHIL 115W Philosophy of Race, Class and Gender (3)
PHIL 205W Culture, Identity and Diversity (3)
PHIL 222W Medical Ethics (3)
PHIL 224W Business Ethics (3)
PHIL 226W Environmental Ethics (3)
PHIL 240W Law, Justice & Society (3)
(choose two of the following 6 credits)
PHIL 321W Social & Political Philosophy (3)
PHIL 334 History of Philosophy: Classical Philosophy (3)
PHIL 337 19th Century Philosophy (3)
PHIL 358 Eastern Philosophy (3)
PHIL 361 Philosophy of Religion (3)
PHIL 340 Philosophy of Law (3)
PHIL 445 Feminist Philosophy (3)
PHIL 455 Existentialism & Phenomenology (3)
PHIL 450 Special Topics (1-3)
PHIL 460 Philosophy of the Arts (3)
(choose one elective from list below)
PHIL 115W Philosophy of Race, Class and Gender (3)
PHIL 205W Culture, Identity, and Diversity (3)
PHIL 222W Medical Ethics (3)
PHIL 224W Business Ethics (3)
PHIL 226W Environmental Ethics (3)
PHIL 321W Social & Political Philosophy (3)
PHIL 334W History of Philosophy: Classical Philosophy (3)
PHIL 337 19th Century Philosophy (3)
PHIL 358W Eastern Philosophy (3)
PHIL 361 Philosophy of Religion (3)
PHIL 440 Philosophy of Law (3)
PHIL 445 Feminist Philosophy (3)
PHIL 450 Special Topics (1-3)
PHIL 455 Existentialism & Phenomenology (3)
PHIL 460 Philosophy of the Arts (3)

COURSE DESCRIPTIONS

PHIL 100W (3) Introduction to Philosophy
Introduction to the nature of philosophy and specific, basic problems.
Fall, Spring
WI, GE-6

PHIL 101W (3) Philosophical Problem: the Mind-Body Problem
This course considers historical and contemporary analyses of the mind in relation to the body and the connection of the mind-body problem to other issues concerning both religion and science.
Fall, Spring
WI, GE-6

PHIL 110 (3) Logic and Critical Thinking
Traditional syllogistic logic and an introduction to the elements of modern symbolic logic.
Fall, Spring
GE-2, GE-4

PHIL 112 (3) Logic of Scientific Method
Inductive logic, formation of hypotheses, scientific explanation, definition, classification, probability, analogy.
Variable
GE-2, GE-4
PHIL 115W (3) Philosophy of Race, Class and Gender
To what extent do the differences among races and between genders represent biological differences, and to what extent are they constructed by society? Is racism best conceptualized as an additional burden to sexism or as one different in kind? Variable
WI, GE-6, GE-7

PHIL 120W (3) Introduction to Ethics
Discussion of theories of value and obligation. Variable
WI, GE-6, GE-9

PHIL 205W (3) Culture, Identity, and Diversity
Discussion of the ways that a culture both creates human community and shapes self-identity. Exploration of similarities and differences between and interdependence among cultural traditions, and of vocabularies for assessing traditions. Variable
WI, GE-6, GE-8

PHIL 222W (3) Medical Ethics
Ethical perspectives relevant to issues such as euthanasia, genetic engineering, organ transplant, patients’ rights, abortion, etc. Variable
WI, GE-6, GE-9

PHIL 224W (3) Business Ethics
Introduction to ethical theories and concepts and their application to specific cases in the world of business. Variable
WI, GE-6, GE-9

PHIL 226W (3) Environmental Ethics
Questions about human responsibilities to other animals and the environment gain urgency as environmental crises become more prevalent, and animal species continue to be eliminated. Learn about, critique, and apply the principles underlying evaluations of human environmental conduct. Variable
WI, GE-6, GE-9

PHIL 240W (3) Law, Justice & Society
Consideration of the basic philosophical approaches to the idea of justice and how this idea relates to other fundamental ideas in political philosophy, ethics, and law. Variable
WI, GE-6, GE-9

PHIL 311 (3) Symbolic Logic
Study of the elements of first order symbolic logic, i.e., the propositional calculus and the predicate calculus, and its applications to ordinary language and mathematics. Spring
GE-2, GE-4

PHIL 312W (3) Social & Political Philosophy
Human rights and responsibilities in relation to the organization of society and government. Variable
WI, GE-6, GE-9

PHIL 322W (3) Ethical Theory
Topics in normative, meta-ethical and applied ethical theory. WI, GE-6, GE-9

PHIL 323W (3) Philosophy of Economics
This course will introduce students to important texts in moral and social philosophy that provide the foundation for modern economics. In addition, we will discuss philosophical accounts of rationality, well being, and freedom and their relevance to economic analysis. Variable
WI, GE-6, GE-9

PHIL 324W (3) History of Philosophy: Classical Philosophy
Philosophers of Ancient Greece, Rome and the early middle ages: The presocratic, Plato, Aristotle, Hellenistic and Roman philosophers, St. Augustine. WI, GE-6

PHIL 336W (3) History of Philosophy: Renaissance and Modern Philosophy
Late Medieval Philosophy and its influence on the Renaissance, Descartes, Spinoza, Leibnitz and Continental Rationalism, Locke, Berkeley, Hume and British Empiricism, and Kant. WI, GE-6

PHIL 337 (3) 19th Century Philosophy
Philosophers and philosophies of the 19th century. Variable
GE-6

PHIL 338 (3) American Philosophy
Colonial times to the present. Variable

PHIL 358W (3) Eastern Philosophy
Survey of principle philosophical doctrines of ancient Chinese philosophers and a survey of Indian philosophical speculation. Variable
WI, GE-6, GE-8

PHIL 359 (3) Philosophy of Religion
Structure and logic of religious belief. Problems such as the existence of God, evil, immortality, miracles, and religious language. Fall

PHIL 400 (3) The Philosophy of Immanuel Kant
This course will undertake a close reading and study of Immanuel Kant’s Critique of Pure Reason and other texts. Variable

PHIL 405 (3) The Philosophy of Ludwig Wittgenstein
A study of the philosophy of Ludwig Wittgenstein. Variable

PHIL 410 (3) Philosophy of Language
Theories of meaning, speech acts and semantics, relation of language to the world. Variable

PHIL 420 (3) Epistemology
Theories of knowledge and justification, skeptical attacks on the possibility of knowledge, and anti-skeptical defenses. Variable

PHIL 430 (3) Metaphysics
An investigation of the most fundamental concepts of reality, including the nature of things, identity over time, modality, causation, free will, space and time, and universals and particulars. Variable

PHIL 437 (3) Contemporary Philosophy
Major philosophers and philosophies of the late 20th Century. Variable

PHIL 440 (3) Philosophy of Law
Discussion of philosophical issues in law by way of connecting legal problems to well-developed and traditional problems in philosophy, e.g., in ethics, political philosophy, and epistemology, and investigates the philosophical underpinnings of the development of law. The course takes an analytical approach to law (as opposed to historical sociological, political, or legalistic approaches) and devotes a substantial part of the semester to a major work on law written by a philosopher. Fall

PHIL 445 (3) Feminist Philosophy
Study of philosophy done from a feminist perspective in areas such as metaphysics, epistemology or ethics.
PHILOSOPHY CONTINUED

PHIL 450 (1-3) Special Topics
Intensive study of a single philosopher or topic.
Variable

PHIL 455 (3) Existentialism & Phenomenology
In-depth analysis of major European existentialists such as Kierkegaard, Heidegger, and Sartre.
Variable

PHIL 460 (3) Philosophy of the Arts
Aesthetic principles, theories, and the creative process. Theories of visual arts, music, literature, dance, etc.
Spring

PHIL 465 (3) Philosophy of Film
This course investigates some of the central philosophical issues in our thinking about film, including questions about narrative, ontology, ethical criticism of film, the role of artistic intentions in interpretation, artistic medium, and the art/entertainment distinction.
Spring

PHIL 474 (3) Philosophy of the Mind
The nature of consciousness, mind and body relations, freedom of action.
Variable

PHIL 475 (3) Philosophical Issues in Cognitive Science
This course examines the conceptual and philosophical complexities of efforts to understand the mind in science. Topics include the differences and similarities between humans and other animals, the nature of psychological explanation, and reductive strategies for explaining consciousness, intentionality and language.
Fall

PHIL 476 (3) Philosophy of Perception
Cognitive and epistemic issues surrounding sensory perception, including the nature of perception, its immediate objects, and its ability to deliver knowledge of the world.
Variable

PHIL 478 (3) Philosophy of Science
Nature of explanations, causality, theoretical entities, and selected problems.
Variable

PHIL 480 (3) Philosophy of Biology
The course examines conceptual and philosophical issues in biology, the nature and scope of biological explanation and conflicts between evolutionary and religious explanations for the origin of life.

PHIL 482 (3) Philosophy of Social Science
Examines the nature and methods of alternative strategies of theory construction in the social sciences and the metaphysical and epistemological assumptions and implications of such strategies. For example can people, their behavior and norms of rationality be understood in naturalistic terms or must they be understood only in culturally local terms?
Variable

PHIL 490 (1-6) Workshop
Special event of less than semester duration.
Variable

PHIL 491 (1-6) In-Service
Variable

PHIL 495 (2) Senior Thesis I
The nature of the topic of the senior thesis is jointly determined by the student and Philosophy Department faculty members. Philosophy majors should enroll in this course in the first semester of their final year of undergraduate studies. By the end of the first semester of the final year, the student will have completed a substantive draft of their senior thesis. The thesis will be completed during the final semester of the student’s undergraduate studies.

PHIL 496 (1) Senior Thesis II
The nature of the topic of the senior thesis is jointly determined by the student and Philosophy Department faculty members. Philosophy majors should enroll in this course in the first semester of their final year of undergraduate studies. By the end of the first semester of the final year, the student will have completed a substantive draft of their senior thesis. The thesis will be completed during the final semester of the student’s undergraduate studies.

PHIL 498 (1) In-Service
Variable

The P/E major integrates the historical, methodological, theoretical, and practical foci of Philosophy, Political Science, and Economics to form a single course of study. The focus of the major is on the dynamic relationships between the economic, political, and legal systems of our society, relationships that require the analytical methods of all three disciplines to be understood fully. For example, the best way to understand our competitive market economy, certainly a fundamental institution of our society, is to explore its empirical, historical, political, and ethical dimensions. Indeed, if one considers the most influential historical figures in each of the three fields, e.g., John Locke, Adam Smith, David Hume, John Stuart Mill, G.W.F. Hegel, and Karl Marx, it is immediately clear that they recognized no rigid disciplinary boundaries between philosophy, political science, and economics, and that the strength of their views lies precisely in their grasp of the dynamic relationships between the systems that these disciplines study. Admittedly, the coherence of the major is expressed at a fairly abstract and analytical level; the content of the major can be broad and diverse, but all students who work through the major’s curriculum will develop an appreciation of the complexity of our society’s central institutions and problems at the same time that they acquire the analytical facility to engage and critically evaluate them. Students in the major take a number of required core courses in Philosophy, Political Science, and Economics, (9 credits from each of the three departments, a total of 27 credits). Majors must also choose which department they will focus in, their “concentration” (so specifically, one is “a PPE major with a concentration in Philosophy,” or “a PPE major with a concentration in Political Science,” etc.) Students then take 5 more upper-level courses in the concentration (15 credits), and two more upper-level courses from each of the other two departments (12 credits). Majors must also take a statistics course (3 credits), and a senior thesis or independent study course (3 credits). The total required number of credits then is 60, and 43 of them must be in upper-division courses. The PPE major, then, qualifies as a “broad major” that does not require a minor.

POLICIES/INFORMATION

Admission to Major is granted by the Director of the PPE Program. Minimum university admission requirements are:
- a minimum of 32 earned semester credit hours.
- a minimum cumulative GPA of 2.0 (“C”).

Contact the director of the program for application procedures.

P/N Grading Policy. The P/N grading system applies to all courses, but majors and minors may take 300- or 400-level courses in philosophy for P/N credit only with the consent of the department.
### PHILOSOPHY, POLITICS & ECONOMICS BA

Degree completion = 120 credits

#### Major Common Core
- **ECON 201** Principles of Macroeconomics (3)
- **ECON 202** Principles of Microeconomics (3)
- **ECON 355** Intermediate Microeconomics (3)
- **PHIL 120W** Introduction to Ethics (3)
- **POL 111** United States Government (3)
  
#### PHIL (choose 3 credits)
- **PHIL 224W** Business Ethics (3)
- **PHIL 240W** Law, Justice & Society (3)
  
#### PHIL (choose 3 credits)
- **PHIL 323W** Philosophy of Economics (3)
- **PHIL 440** Philosophy of Law (3)
  
#### POL (choose 3 credits)
- **POL 231** World Politics (3)
- **POL 241** Introduction to Comparative Politics (3)
  
#### POL (choose 3 credits)
- **POL 311** Ancient & Medieval Political Philosophy (3)
- **POL 312** Early Modern Political Philosophy (3)
- **POL 313** Modern Political Philosophy (3)
- **POL 410** Topics in Political Philosophy (1-4)
- **POL 414** Early United States Political Thought (3)
- **POL 415** Recent United States Political Thought (3)
- **POL 416** Nonwestern Political Philosophy (3)
  
#### ECON (choose 3 credits)
- **ECON 207** Business Statistics (4)
- **MATH 354** Concepts of Probability & Statistics (3)
- **POL 221** Introduction to Political Analysis (3)
- **PSYC 201** Statistics for Psychology (4)
- **SOC 202** Introductory Social Statistics (3)
- **STAT 154** Elementary Statistics (3)
  
#### Major Emphasis: Philosophy
- **PHIL 495** Senior Thesis I (2)
- **PHIL 496** Senior Thesis II (1)
  
#### PHIL (choose 15 credits)
- **PHIL 321** Social & Political Philosophy (3)
- **PHIL 322W** Ethical Theory (3)
- **PHIL 323W** Philosophy of Economics (3)
- **PHIL 334W** History of Philosophy: Classical Philosophy (3)
- **PHIL 336W** History of Philosophy: Renaissance and Modern Philosophy (3)
- **PHIL 337** 19th Century Philosophy (3)
- **PHIL 338** American Philosophy (3)
- **PHIL 358W** Eastern Philosophy (3)
- **PHIL 437** Contemporary Philosophy (3)
- **PHIL 440** Philosophy of Law (3)
- **PHIL 450** Special Topics (1-3)
- **PHIL 455** Existentialism & Phenomenology (3)
- **PHIL 474** Philosophy of the Mind (3)
- **PHIL 480** Philosophy of Science (3)
- **PHIL 499** Individual Study (1-6)
  
#### Other Graduation Requirements
- Requirement for Bachelor of Arts (BA) degree: Language (8 credits)
PHILOSOPHY, POLITICS & ECONOMICS BS

Degree completion = 120 credits

Major Common Core
ECON 201 Principles of Macroeconomics (3)
ECON 202 Principles of Microeconomics (3)
ECON 355 Intermediate Microeconomics (3)
PHIL 120W Introduction to Ethics (3)
POL 111 United States Government (3)
(choose 3 credits)
PHIL 224W Business Ethics (3)
PHIL 240W Law, Justice & Society (3)
(choose 3 credits)
PHIL 323W Philosophy of Economics (3)
PHIL 440 Philosophy of Law (3)
(choose 3 credits)
POL 231 World Politics (3)
POL 241 Introduction to Comparative Politics (3)
(choose 3 credits)
POL 311 Ancient & Medieval Political Philosophy (3)
POL 312 Early Modern Political Philosophy (3)
POL 313 Modern Political Philosophy (3)
POL 410 Topics in Political Philosophy (1-4)
POL 414 Early United States Political Thought (3)
POL 415 Recent United States Political Thought (3)
POL 416 Nonwestern Political Philosophy (3)
(choose 3-4 credits)
ECON 207 Business Statistics (4)
MATH 354 Concepts of Probability & Statistics (3)
POL 221 Introduction to Political Analysis (3)
PSYC 201 Statistics for Psychology (4)
SOC 202 Introductory Social Statistics (3)
STAT 154 Elementary Statistics (3)

Major Emphasis: Philosophy
PHIL 495 Senior Thesis I (2)
PHIL 496 Senior Thesis II (1)
(choose 15 credits)
PHIL 321 Social & Political Philosophy (3)
PHIL 322W Ethical Theory (3)
PHIL 323W Philosophy of Economics (3)
PHIL 334W History of Philosophy: Classical Philosophy (3)
PHIL 336W History of Philosophy: Renaissance and Modern Philosophy (3)
PHIL 337 19th Century Philosophy (3)
PHIL 338 American Philosophy (3)
PHIL 358W Eastern Philosophy (3)
PHIL 437 Contemporary Philosophy (3)
PHIL 440 Philosophy of Law (3)
PHIL 450 Special Topics (1-3)
PHIL 455 Existentialism & Phenomenology (3)
PHIL 474 Philosophy of the Mind (3)
PHIL 450 Philosophy of Science (3)
PHIL 499 Individual Study (1-6)
(choose 6 credits)
POL 3xx to POL 4xx, except POL 490, POL 491, POL 492.
(choose 3 credits)
ECON 499 Individual Study (1-3)

Major Emphasis: Political Science (choose 3 credits)
POL 231 World Politics (3)
POL 241 Introduction to Comparative Politics (3)
POL 311 Ancient & Medieval Political Philosophy (3)
POL 312 Early Modern Political Philosophy (3)
POL 313 Modern Political Philosophy (3)
POL 410 Topics in Political Philosophy (1-4)
POL 414 Early United States Political Thought (3)
POL 415 Recent United States Political Thought (3)
POL 416 Nonwestern Political Philosophy (3)
(choose 3 credits)
POL 450 Topics in Public Law (1-4)
POL 451 Administrative Law (3)
POL 452 Jurisprudence (3)
POL 453 Constitutional Law (3)
POL 454 Civil Liberties (3)
POL 455 American Legal Philosophy (3)
(choose 9 credits)
POL 3xx to POL 4xx, except POL 490, POL 491.
(choose 3 credits)
POL 492 Individual Study (1-5)
(choose 6 credits)
PHIL 321 Social & Political Philosophy (3)
PHIL 322W Ethical Theory (3)
PHIL 323W Philosophy of Economics (3)
PHIL 334W History of Philosophy: Classical Philosophy (3)
PHIL 336W History of Philosophy: Renaissance and Modern Philosophy (3)
PHIL 337 19th Century Philosophy (3)
PHIL 338 American Philosophy (3)
PHIL 358W Eastern Philosophy (3)
PHIL 437 Contemporary Philosophy (3)
PHIL 440 Philosophy of Law (3)
PHIL 450 Special Topics (1-3)
PHIL 455 Existentialism & Phenomenology (3)
PHIL 474 Philosophy of the Mind (3)
PHIL 499 Individual Study (1-6)
(choose 6 credits)
ECON 301 Quantitative Methods in Economics (3)
ECON 305 Money and Banking (3)
ECON 314W Current Economic Issues (3)
ECON 355 Intermediate Microeconomics (3)
ECON 356 Intermediate Macroeconomics (3)
ECON 403 Labor Economics (3)
ECON 405 Central Banking (3)
ECON 406 Economics of Unions (3)
ECON 411 Urban Economics (3)
ECON 412 Resource and Environmental Economics (3)
ECON 416 Sports Economics (3)
ECON 420 International Economics (3)
ECON 429 Economic Education (3)
ECON 440 Public Finance (3)
ECON 450 Economic Development (3)
ECON 462 Econometrics (3)
ECON 463 Applied Econometrics of Financial Markets (3)
ECON 472 Industrial Organization (3)
Physics

College of Science, Engineering & Technology
Department of Physics & Astronomy
141 Traflon Science Center N • 507-389-5743
Website: cset.mnsu.edu/pa/

Chair: Youwen Xu
Thomas R. Brown, Analia Dall’Asen, Igor Kogoutiouk, Russell L. Palma, Mark A. Pickar, Andrew D. Roberts, Hai-Sheng Wu

Physics is a science concerned with understanding the fundamental laws of nature. It explains motion, heat, electricity, magnetism and light in everyday life; it ranges from studies of the origin of the universe to the behavior of atoms and subatomic particles that involves relativity and quantum mechanics. Physics is the foundation of all fields of science and engineering.

The physics curriculum consists of sequences of interrelated courses that must be taken in the appropriate order. Well prepared students should complete the physics major in four years. The physics B.S. program prepares students for advanced study in physics or engineering, or to work in the public or private sectors. The B.S. physics teaching program prepares students to teach physics in high school. Training in physics gives students a strong ability in problem solving that will serve them well in any occupations.

POLICIES/INFORMATION

Admission to the major is granted by the department. To be admitted to the major, a student must have a minimum of 32 earned credit hours and a minimum cumulative GPA of 2.00 ("C").

Contact the College of Science, Engineering and Technology Advising Center for application procedures.

GPA policy. A minimum GPA of 2.0 in physics courses is required for graduation.

P/N grading policy. All physics courses except PHYS 105 and PHYS 480 are open to P/N grading. However, a student majoring or minoring in physics must elect the grade option for all of the required courses except where P/N grading is mandatory.

A minimum of 25 percent of the required credits in physics must be taken at Minnesota State University, Mankato for both the major and the minor. Testing for credit by examination is available on a case-by-case basis as determined by the chairperson of the Physics and Astronomy department.

BS degree, Double major. Students majoring in physics often find a second major in mathematics to be an attractive option. If the BS degree in physics is combined with a BS degree in mathematics, then the following math courses are recommended: MATH 345, MATH 422, MATH 425, and MATH 447.

PHYSICS BS
Degree completion = 120 credits

Students interested in physics preparation leading to professional opportunities or graduate study are encouraged to select this major.

Required General Education
MATH 121 Calculus I (4)
PHYS 221 General Physics I (4)

Major Common Core
CS 110 Computer Science I (4)
EE 230 Circuit Analysis I (3)
EE 240 Evaluation of Circuits (1)
MATH 122 Calculus II (4)
MATH 223 Calculus III (4)
MATH 247 Linear Algebra I (4)
MATH 321 Ordinary Differential Equations (4)
PHYS 150 Explorations in Physics (1)
PHYS 222 General Physics II (3)

Required Elective
PHYS 223 General Physics III (3)
PHYS 232 General Physics II Laboratory (1)
PHYS 233 General Physics III Laboratory (1)
PHYS 335 Modern Physics I (3)
PHYS 336 Modern Physics II (3)
PHYS 441 Mechanics (4)
PHYS 447 Electricity & Magnetism I (3)
PHYS 448 Electricity & Magnetism II (3)
PHYS 457 Optics (3)
PHYS 461 Quantum Mechanics (4)
PHYS 465 Computer Applications in Physics (3)
PHYS 473 Statistical Physics (3)
PHYS 475W Advanced Laboratory (3)
PHYS 492 Seminar (1)

Major Unrestricted Electives
Required Electives (choose 4 credits)
AST 351 Telescope Operations (2)
AST 353 Photometry I (2)
AST 355 Astrometry (2)
AST 357 Spectroscopy (2)
AST 420 Stellar Astrophysics (3)
AST 430 Galactic Structure (3)
EE 303 Introduction to Solid State Devices (3)
EE 304 Lab: Introduction to Solid State Devices (1)
MATH 354 Concepts of Probability & Statistics (3)
MATH 411 Introduction to Complex Variables (4)
MATH 422 Partial Differential Equations (4)
MATH 470 Numerical Analysis I (4)
PHYS 417 Biophysics (2)
PHYS 453 Solid State Physics (3)
PHYS 493 Undergraduate Research (1-6)
PHYS 499 Individual Study (1-8)
STAT 354 Concepts of Probability & Statistics (3)

Required Minor: None.

PHYSICS MINOR

Required General Education
MATH 121 Calculus I (4)
PHYS 221 General Physics I (4)

Required Support Course
MATH 122 Calculus II (4)

Required for Minor
PHYS 222 General Physics II (3)
PHYS 223 General Physics III (3)
PHYS 335 Modern Physics I (3)
PHYS 336 Modern Physics II (3)

Required Elective (2-4 credits)
Choose a minimum of one course from the following courses:
PHYS 441 Mechanics (4)
PHYS 447 Electricity & Magnetism I (3)
PHYS 457 Optics (3)
PHYS 465 Computer Applications in Physics (3)
PHYS 473 Statistical Physics (3)
PHYS 475 Advanced Laboratory (3)

PHYSICS SCIENCE TEACHING BS
Degree completion = 120 credits

General requirements for programs in teaching the sciences can be found in the SCIENCE TEACHING section of this catalog.

Required General Education (3 credits)
Recommended General Education (22-23 credits)
Including MATH 121

Required General Science Core (31-33 credits)
Required Professional Education (30 credits)

Required for Major

MATH 122 Calculus II (4)
PHYS 335 Modern Physics I (3)
PHYS 336 Modern Physics II (3)
PHYS 381 Tutoring Physics (2)
PHYS 465 Computer Applications in Physics (3)
PHYS 482 Teaching Methods & Materials in Physical Science (4)
PHYS 493 Undergraduate Research (1-6) (2 credits required)

Electives (Minimum of 8 Credits)*

Students may use PHYS 221, PHYS 222, PHYS 223, PHYS 232 and PHYS 233 to fulfill their Physics Electives requirement only if PHYS 211 and PHYS 212 are completed successfully.

Alternatively, students with a strong interest in applying advanced mathematical skills to problems in physics are encouraged to choose a minimum of 8 credits* of higher level Physics or Mathematics as approved by the student’s advisor to fulfill the Physics Elective requirement.

*This is reduced to 4 credits if PHYS 221, PHYS 222, PHYS 223, PHYS 232 and PHYS 233 have been taken in place of PHYS 211 and PHYS 212 in partial fulfillment of the General Science Core requirements.

Students intending to teach physics in states other than Minnesota are advised to select the BS Physics major and use elective credits to satisfy the professional education course requirements. For additional information confer with the science teaching advisor.

COURSE DESCRIPTIONS

PHYS 100 (3) Cultural Physics
Self-paced format, open laboratory component. Includes the history, philosophy and growth of science from myth to the present. Included are readings on Galileo, Newton, the Industrial Revolution, and the modern scientific revolution. The relationship of science to art, archaeology, politics, weapons, medicine, technology, research and development, and the universe are discussed. Lab included. Fall, Spring

PHYS 101 (3) Introductory Physics
A one semester course which covers the basic principles of physics on a conceptual level and with a minimal amount of math. The course provides an understanding of natural processes and their applications. Topics generally include mechanics, simple machines, atomic structure, heat, light and sound. Lecture and laboratory components. Fall, Spring

PHYS 102 (3) Physics in the World Around Us
A one semester course which covers the basic principles of physics on a conceptual level. The course provides an understanding of natural processes and their applications to technology (or how things work!), including the greenhouse effect and nuclear power. Lecture only.

PHYS 105 (3) Time, Atomic Clocks, and Relativity
Self-paced format. Includes readings on time; telling time from sundials to atomic clocks; Albert Einstein (a biography of the primary developer of the Theory of Relativity); and the Theory of Relativity. All the readings are written to be understood by non-scientists.
Fall, Spring

PHYS 150 (1) Explorations in Physics
This course offers an introduction to the field of physics, and prepares students for academic success in the program. Students will become familiar with current topics of physics research within the department, and better understand the career paths available with a physics major.
Fall

PHYS 211 (4) Principles of Physics I
General background in physical concepts for those who do not plan advanced study in physics or engineering. Topics include mechanics, fluids, heat and thermodynamics. Lecture and laboratory.
Pre: Either MATH 112 and MATH 113, or MATH 115; and high school physics or PHYS 101.
Fall, Spring

GE-2, GE-3

PHYS 212 (4) Principles of Physics II
Includes waves and sound, electricity and magnetism, light and optics, and topics in modern physics. Lecture and laboratory.
Pre: PHYS 211
Fall, Spring

PHYS 221 (4) General Physics I
Designed for science and engineering students. Calculus-based physics. Covers elementary mechanics including kinematics, statics, equilibrium and dynamics of particles, work and energy, rotational motion, gravitation, and oscillation. Lecture and laboratory.
Pre: MATH 121 with a “C” or better; and high school physics or PHYS 101
Fall, Spring

GE-2, GE-3

PHYS 222 (3) General Physics II
Designed for science and engineering students. Calculus-based physics. Covers electrical charge and field; magnetic field and its sources; current and resistance; simple DC and AC circuits; and electromagnetic induction. Lecture only. (Associated laboratory course is PHYS 232.)
Pre: MATH 122 with a “C” or better; and PHYS 221 with a “C” or better.
Fall, Spring

PHYS 223 (3) General Physics III
Designed for science and engineering students. Calculus-based physics. Covers fluids, thermodynamics, mechanical and sound waves, geometrical optics, physical optics, and modern physics. Lecture only. (Associated laboratory course is PHYS 233.)
Pre: MATH 122 with a “C” or better; and PHYS 221 with a “C” or better.
Fall, Spring

PHYS 232 (1) General Physics II Laboratory
Designed for science and engineering students. Laboratory course accompanying PHYS 222. Experiments involving electric and magnetic fields, electric potential, electric and magnetic forces, and simple circuits. Laboratory only.
Pre: PHYS 221 with a “C” or better; and PHYS 222 or concurrent.
Fall, Spring

PHYS 233 (1) General Physics III Laboratory
Designed for science and engineering students. Laboratory course accompanying PHYS 223. Experiments involving fluids, thermodynamics, mechanical waves, geometrical optics, and physical optics. Laboratory only.
Pre: PHYS 221 with a “C” or better; and PHYS 223 or concurrent.
Spring

PHYS 335 (3) Modern Physics I
Pre: MATH 122; (PHYS 222 and concurrently with PHYS 223) or PHYS 212.
Spring

PHYS 336 (3) Modern Physics II
Topics include the basics of molecular structure and spectra, classical and quantum statistical physics, solid state physics, nuclear physics, and particle physics. The lab component will teach the operation of various radiation detectors, and use them to study the interaction of radiation with matter.
Pre: PHYS 335
Fall
PHYS 381 (1-3) Tutoring Physics
Supervised experience as an instructional assistant. Must demonstrate ability in basic physics.
Pre: Consent
Variable

PHYS 417 (2) Biophysics
This course bridges the gap between introductory physics and its application to the life and biomedical sciences. Topics include fluid flow, membrane transport, nerve conduction, imaging methods including MRI, CT, and nuclear imaging, radiotherapy, and health physics.
Pre: MATH 121, PHYS 212 or PHYS 222
Variable

PHYS 441 (4) Mechanics
Rectilinear motion of a particle, general motion of a particle in three dimensions, Newtonian mechanics including harmonic oscillations, forced oscillations, central forces and orbital motion, collisions, noninertial reference systems, dynamics of a system of particles, rigid body motion, Lagrangian and Hamiltonian mechanics, normal coordinates.
Pre: PHYS 222 or PHYS 223; and MATH 321 or consent.
Fall

PHYS 447 (3) Electricity & Magnetism I
Electrostatic fields, magnetostatic fields, steady currents, electromagnetic induction. Review of vector algebra.
Pre: MATH 223 and MATH 321 and PHYS 222
Fall

PHYS 448 (3) Electricity & Magnetism II
Electromagnetic waves, propagation and radiation of waves, electrodynamics and relativity.
Pre: PHYS 223 and PHYS 447
Spring

PHYS 453 (3) Solid State Physics
Atoms in crystals, wave in crystals, thermal vibrations of the crystal lattice, free electron model, band theory of solids, semiconductors and PN junctions, magnetism, and superconductivity.
Pre: PHYS 335
Variable

PHYS 457 (3) Optics
Geometric optics, wave optics, properties of light and matter, optics of transformations, and quantum optics. Lecture and laboratory.
Pre: MATH 122 and PHYS 223
ODD-Spring

PHYS 461 (4) Quantum Mechanics
A systematic development of foundations of quantum mechanics. Observables, operators, state functions, expectation values. Matrix formulation of eigenvalue problems. The hydrogen atom, electron spin, angular momentum, and perturbation theory.
Pre: PHYS 335, PHYS 441, MATH 247, MATH 321
Fall

PHYS 465 (3) Computer Applications in Physics
Numerical solutions of physics problems and computer simulations of physical systems. Lecture and laboratory.
Pre: MATH 122, CS 110 and PHYS 222 or PHYS 223.
Fall

PHYS 473 (3) Statistical Physics
Fundamental principles of statistical physics, including theory of probability, kinetic theory of transport process, entropy, classical and quantum statistical ensembles, Bose and Fermi systems. Applications to thermodynamics and magnetic properties of solids.
Pre: MATH 321 and PHYS 223
Alt-Spring

PHYS 475 (3) Advanced Laboratory
Experiments in modern physics, including solid-state physics and optics. Requires more independent work than introductory laboratories.
Pre: PHYS 336 or consent
Spring

PHYS 475W (3) Advanced Laboratory
Experiments in modern physics, including solid-state physics and optics. Requires more independent work than introductory laboratories.
Pre: PHYS 336 or consent
Spring

PHYS 480 (3) Lab Experiences in Physical Science
For prospective teachers in elementary schools. Topics include weather, weather forecasting and record keeping, simple machines, electricity, chemistry, sound, light, and others. May not count as a physics elective. Not available for P/N grading.
Fall, Spring

PHYS 482 (4) Teaching Methods and Materials in Physical Science
Current methods of teaching all physical sciences with emphasis on physics and chemistry. For students planning to teach at a middle school, secondary school, college, or a university.
Pre: one year of chemistry and one year of physics, or consent
Spring

PHYS 490 (2-4) Workshop
A short course devoted to a specific topic in physics. May be repeated for credit on each new topic.
Variable

PHYS 491 (1-8) In-Service
A course designed to upgrade the qualifications of persons on-the-job.
Variable

PHYS 492 (1) Seminar
Students will attend research seminars presented by faculty in the department, or speakers from other institutions. Students also make and critique presentations made by themselves and other students. May be repeated for credit.
Pre: Completed at least two upper division physics courses.
Spring

PHYS 493 (1-6) Undergraduate Research
Pre: Consent
Variable

PHYS 495 (1-2) Selected Topics
A course in an area of physics not regularly offered. Topic and credit assigned by department each time offered.
Pre: PHYS 335 and PHYS 336
Variable

PHYS 497 (1-16) Internship
Provides a student with the opportunity to gain expertise and experience in a special field under the supervision of a qualified person.
Pre: Usually Sr. standing
Variable

PHYS 499 (1-8) Individual Study
Special arrangements must be made with an appropriate faculty member of the department office. May be repeated for credit on each new topic.
Pre: Consent
Variable
Political Science

College of Social & Behavioral Sciences  
Department of Government  
109 Morris Hall • 507-389-2721

Website: www.mnsu.edu/psle/

Chair: Scott Granberg-Rademacker

Abdalla Battah, Susan Burum, Reggie Edwards, Scott Granberg-Rademacker, Tomasz Inglot, Avra Johnson, Eiji Kawabata, Joseph Kunkel, Kevin Parsneau, Fred Slocum, Jackie Vieceli

Political science is the systematic study of politics, power relationships and government. Political science is in one sense an ancient discipline: Aristotle called it the “queen of the sciences.” Yet the focus for much of today’s political science was developed in the last century. Scientific observations have now joined older philosophical traditions. Modern political science examines politics in the United States, countries and regions of the world and in international relations. It explains how and why public decisions are made. Political science majors can qualify for a wide variety of careers in public and private sector organizations. 

Minimum Credit Requirement. All students (including transfer students) majoring in Political Science must take a minimum of 15 credits of Political Science courses at Minnesota State Mankato before graduation with BA in Political Science.

Minimum Credit Requirement. All students (including transfer students) majoring in Political Science must take a minimum of 15 credits of Political Science courses at Minnesota State Mankato before graduation with BS in Political Science.

Minimum Credit Requirement. All students (including transfer students) majoring in Political Science must take a minimum of 9 credits of Political Science courses at Minnesota State Mankato before graduation.

Minimum Credit Requirement. All students (including transfer students) majoring in Political Science courses at Minnesota State Mankato before graduation with BS in Political Science.

No more than six (6) credit hours taken toward completing the International Relations major can be counted toward completing the Political Science major.

GPA Policy. Students must maintain an overall GPA of 2.0 in the Political Science major AND must earn a “C-” or better for all courses in the Political Science major.

Pass/No Credit Policy. With the exception of internship credits, which must be taken on a P/N basis, no more than one-fourth of the credits in a political science major or minor may be taken as P/N. Internship credits will not be counted as part of the one-fourth limitation, but will be subtracted from the total hours required for the major or minor prior to the computation of the one-fourth limitation.

POLITICAL SCIENCE BA

Degree completion = 120 credits

Major Common Core

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>POL 111</td>
<td>United States Government</td>
<td>3</td>
</tr>
<tr>
<td>POL 221</td>
<td>Introduction to Political Analysis</td>
<td>3</td>
</tr>
<tr>
<td>POL 241</td>
<td>Introduction to Comparative Politics</td>
<td>3</td>
</tr>
</tbody>
</table>

Major Restricted Electives

Choose Area 1, Area 2 or Area 3 as your concentration area. Within your chosen concentration area, complete at least 15 credit hours (concentration requirement: minimum 15 credit hours). Within the other two (non-concentration) areas, complete at least 3 credit hours each (distribution requirement: minimum 6 credit hours total).

Area 1: American Politics and Policy

<table>
<thead>
<tr>
<th>Course</th>
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<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>POL 260</td>
<td>Introduction to Public Administration</td>
<td>3</td>
</tr>
<tr>
<td>POL 321</td>
<td>Democracy and Citizenship</td>
<td>2</td>
</tr>
<tr>
<td>POL 322</td>
<td>In-Service: Public Achievement (1-2)</td>
<td>3</td>
</tr>
<tr>
<td>POL 361</td>
<td>Public Budgeting</td>
<td>3</td>
</tr>
<tr>
<td>POL 371</td>
<td>State &amp; Local Government</td>
<td>3</td>
</tr>
<tr>
<td>POL 420</td>
<td>Topics in Participation and Behavior</td>
<td>3</td>
</tr>
<tr>
<td>POL 422</td>
<td>Campaigns &amp; Elections</td>
<td>3</td>
</tr>
<tr>
<td>POL 423</td>
<td>Political Parties</td>
<td>3</td>
</tr>
<tr>
<td>POL 424</td>
<td>Women &amp; Politics</td>
<td>3</td>
</tr>
<tr>
<td>POL 425</td>
<td>Terrorism &amp; Political Violence</td>
<td>3</td>
</tr>
<tr>
<td>POL 426</td>
<td>Racial and Ethnic Politics</td>
<td>3</td>
</tr>
<tr>
<td>POL 427</td>
<td>Political Psychology</td>
<td>3</td>
</tr>
<tr>
<td>POL 460</td>
<td>Topics in Public Policy/Administration (1-4)</td>
<td>3</td>
</tr>
<tr>
<td>POL 461</td>
<td>Environmental Politics</td>
<td>3</td>
</tr>
<tr>
<td>POL 462</td>
<td>Collective Bargaining: Public Sector</td>
<td>3</td>
</tr>
<tr>
<td>POL 463</td>
<td>Public Personnel Administration</td>
<td>3</td>
</tr>
<tr>
<td>POL 470</td>
<td>Topics in Institutions &amp; Process (1-4)</td>
<td>3</td>
</tr>
<tr>
<td>POL 471</td>
<td>Public Opinion and Polling Methods</td>
<td>3</td>
</tr>
<tr>
<td>POL 472</td>
<td>Urban Government</td>
<td>3</td>
</tr>
<tr>
<td>POL 473</td>
<td>Legislative Process</td>
<td>3</td>
</tr>
<tr>
<td>POL 474</td>
<td>Executive Process</td>
<td>3</td>
</tr>
<tr>
<td>POL 475</td>
<td>Judicial Process</td>
<td>3</td>
</tr>
<tr>
<td>POL 476</td>
<td>Southern Politics</td>
<td>3</td>
</tr>
</tbody>
</table>

Area 2: International Relations and Comparative Politics

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>POL 231</td>
<td>World Politics</td>
<td>3</td>
</tr>
<tr>
<td>POL 430</td>
<td>Topics in International Relations (1-4)</td>
<td>3</td>
</tr>
<tr>
<td>POL 431</td>
<td>International Relations</td>
<td>3</td>
</tr>
<tr>
<td>POL 432</td>
<td>International Law</td>
<td>3</td>
</tr>
<tr>
<td>POL 433</td>
<td>International Organization</td>
<td>3</td>
</tr>
<tr>
<td>POL 434</td>
<td>United States Foreign Policy</td>
<td>3</td>
</tr>
<tr>
<td>POL 435</td>
<td>Capitalism, Nationalism, and Democracy</td>
<td>3</td>
</tr>
<tr>
<td>POL 436</td>
<td>International Political Economy</td>
<td>3</td>
</tr>
<tr>
<td>POL 437</td>
<td>International Conflict Resolution</td>
<td>3</td>
</tr>
<tr>
<td>POL 438</td>
<td>International Relations of East Asia</td>
<td>3</td>
</tr>
<tr>
<td>POL 440</td>
<td>Topics in Comparative Politics (1-4)</td>
<td>3</td>
</tr>
<tr>
<td>POL 441</td>
<td>Russia &amp; Neighboring States Politics</td>
<td>3</td>
</tr>
<tr>
<td>POL 442</td>
<td>South Asia: Politics &amp; Policy</td>
<td>3</td>
</tr>
</tbody>
</table>
POL 443 Middle East Politics (3)
POL 444 Latin American Politics (3)
POL 445 Asian Pacific Rim: Politics & Policy (3)
POL 446 African Politics (3)
POL 447 European Democracies (3)
POL 448 Political Development & Change (3)
POL 449 Comparative Criminal Justice Systems (3)

Area 3: Theory and Public Law
POL 311 Ancient & Medieval Political Philosophy (3)
POL 312 Early Modern Political Philosophy (3)
POL 313 Modern Political Philosophy (3)
POL 410 Topics in Political Philosophy (1-4)
POL 414 Early United States Political Thought (3)
POL 415 Recent United States Political Thought (3)
POL 416 Nonwestern Political Philosophy (3)
POL 450 Topics in Public Law (1-4)
POL 451 Administrative Law (3)
POL 453 Constitutional Law (3)
POL 454 Civil Liberties (3)
POL 455 American Legal Philosophy (3)

Other Course Choices
With permission of advisor, any of the following courses may substitute for courses in the three areas above. No more than 6 credits of POL 491 Internship, can be counted toward completing the Political Science major.
POL 391 Colloquium (1-4)
POL 480 Topics in Political Methods (3)
POL 490 Workshop (1-6)
POL 491 Internship (1-12)
POL 492 Individual Study (1-5)

Major Unrestricted Electives
From the list below, complete at least 6 credit hours of courses at any (100 through 400) level, and at least 6 additional credit hours of courses at the 300 or 400 level ( electives requirement: at least 12 credit hours total). The twelve credit hours of Political Science Major Unrestricted Electives must be different courses than those taken as Major Restricted Electives.

Political Science Electives
POL 100 Introduction to Politics (3)
POL 101 Introduction to Public Life (3)
POL 103W Thinking About Politics (3)
POL 104 Understanding the U.S. Constitution (3)
POL 106 Politics in the World Community (3)
POL 201 Issues in Politics (1-3)
POL 231 World Politics (3)
POL 234 Model United Nations (3)
POL 260 Introduction to Public Administration (3)
POL 311 Ancient & Medieval Political Philosophy (3)
POL 312 Early Modern Political Philosophy (3)
POL 313 Modern Political Philosophy (3)
POL 321 Democracy and Citizenship (2)
POL 322 In-Service: Public Achievement (1-2)
POL 361 Public Budgeting (3)
POL 371 State & Local Government (3)
POL 410 Topics in Political Philosophy (1-4)
POL 414 Early United States Political Thought (3)
POL 415 Recent United States Political Thought (3)
POL 416 Nonwestern Political Philosophy (3)
POL 420 Topics in Participation and Behavior (3)
POL 422 Campaigns & Elections (3)
POL 423 Political Parties (3)
POL 424 Women & Politics (3)
POL 425 Terrorism & Political Violence (3)
POL 426 Racial and Ethnic Politics (3)
POL 427 Political Psychology (3)
POL 430 Topics in International Relations (1-4)
POL 431 International Relations (3)

POL 432 International Law (3)
POL 433 International Organization (3)
POL 434 United States Foreign Policy (3)
POL 435 Capitalism, Nationalism, and Democracy (3)
POL 436 International Political Economy (3)
POL 437 International Conflict Resolution (3)
POL 438 International Relations of East Asia (3)
POL 439 Comparative Social Policy: The Welfare State in Europe and the Americas (3)
POL 440 Topics in Comparative Politics (1-4)
POL 441 Russia & Neighboring States Politics (3)
POL 442 South Asia: Politics & Policy (3)
POL 443 Middle East Politics (3)
POL 444 Latin American Politics (3)
POL 445 Asian Pacific Rim: Politics & Policy (3)
POL 446 African Politics (3)
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POL 450 Topics in Public Law (1-4)
POL 451 Administrative Law (3)
POL 453 Constitutional Law (3)
POL 454 Civil Liberties (3)
POL 455 American Legal Philosophy (3)

Other Graduation Requirements
Required for Bachelor of Arts (BA) degree ONLY: Language (8 credits)

POLITICAL SCIENCE BS
Degree completion = 120 credits

Major Common Core
POL 111 United States Government (3)
POL 221 Introduction to Political Analysis (3)
POL 241 Introduction to Comparative Politics (3)

Major Restricted Electives
Choose Area 1, Area 2 or Area 3 as your concentration area. Within your chosen concentration area, complete at least 15 credit hours (concentration requirement: minimum 15 credit hours); Within the other two (non-concentration) areas, complete at least 3 credit hours each (distribution requirement: minimum 6 credit hours total).

Area 1: American Politics and Policy
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POL 321 Democracy and Citizenship (2)
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POL 427 Political Psychology (3)
POL 460 Topics in Public Policy/Administration (1-4)
Political Science Continued

POL 461 Environmental Politics (3)
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POL 463 Public Personnel Administration (3)
POL 470 Topics in Institutions & Process (1-4)
POL 471 Public Opinion and Polling Methods (3)
POL 472 Urban Government (3)
POL 473 Legislative Process (3)
POL 474 Executive Process (3)
POL 475 Judicial Process (3)
POL 476 Southern Politics (3)

Area 2: International Relations and Comparative Politics

POL 231 World Politics (3)
POL 430 Topics in International Relations (1-4)
POL 431 International Relations (3)
POL 432 International Law (3)
POL 433 International Organization (3)
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POL 436 International Political Economy (3)
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POL 439 Comparative Social Policy: The Welfare State in Europe and the Americas (3)

Other Course Choices

With permission of advisor, any of the following courses may substitute for courses in the three areas above. No more than 6 credits of POL 491, Internship, can be counted toward completing the Political Science major.

POL 391 Colloquium (1-4)
POL 480 Topics in Political Methods (3)
POL 490 Workshop (1-6)
POL 491 Internship (1-12)
POL 492 Individual Study (1-5)

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POL 433 International Organization (3)
POL 434 United States Foreign Policy (3)
POL 435 Capitalism, Nationalism, and Democracy (3)
POL 436 International Political Economy (3)
POL 437 International Conflict Resolution (3)
POL 438 International Relations of East Asia (3)
POL 439 Comparative Social Policy: The Welfare State in Europe and the Americas (3)

POL 440 Topics in Comparative Politics (1-4)
POL 441 Russia & Neighboring States Politics (3)
POL 442 South Asia: Politics & Policy (3)
POL 443 Middle East Politics (3)
POL 444 Latin American Politics (3)
POL 445 Asian Pacific Rim: Politics & Policy (3)
POL 446 African Politics (3)
POL 447 European Democracies (3)
POL 448 Political Development & Change (3)
POL 449 Comparative Criminal Justice Systems (3)
POL 450 Topics in Public Law (1-4)
POL 451 Administrative Law (3)
POL 453 Constitutional Law (3)
POL 454 Civil Liberties (3)
POL 455 American Legal Philosophy (3)
POL 456 Topics in Public Policy/Administration (1-4)
POL 461 Environmental Politics (3)
POL 462 Collective Bargaining: Public Sector (3)
POL 463 Public Personnel Administration (3)
POL 470 Topics in Institutions & Process (1-4)
POL 471 Public Opinion and Polling Methods (3)
POL 472 Urban Government (3)
POL 473 Legislative Process (3)
POL 474 Executive Process (3)
POL 475 Judicial Process (3)
POL 476 Southern Politics (3)

Required Minor: Yes. Any.

Political Science Minor

Required for Minor (18 credits)
Choose at least 18 credits of 300-400 level.
POL Any Level POL Any Level POL 300-400
POL 300-400 POL 300-400 POL 300-400
PUBLIC ADMINISTRATION MINOR
The study of Public Administration provides students with the skills needed to succeed in public-sector management. Skills include leadership and management, data and policy analysis, budgeting and finance, human resources as well as a working knowledge of public-sector governments and political environments.

Minor Core
(The following courses are required)
POI 111 United States Government (3)
POI 221 Introduction to Political Analysis (3)
POI 260 Introduction to Public Administration (3)
POI 371 State & Local Government (3)

Elective (6 credits)
Choose up to six credits from the courses listed below. At least three of the six credits must come from the Restricted Electives category.

Restricted Electives (choose 3-6 credits)
At least three of the six elective credits must come from these courses.
POI 361 Public Budgeting (3)
POI 451 Administrative Law (3)
POI 460 Topics in Public Policy/Administration (1-4)
POI 462 Collective Bargaining: Public Sector (3)
POI 463 Public Personnel Administration (3)

Unrestricted Electives (choose 0-3 credits)
POI 471 Public Opinion and Polling Methods (3)
POI 472 Urban Government (3)
POI 474 Executive Process (3)
POI 491 Internship (1-12)

COURSE DESCRIPTIONS

POI 100 (3) Introduction to Politics
Study of the nature of politics and government and their influence on society and human behavior.
Fall, Spring
GE-5

POI 101 (3) Introduction to Public Life
Combine study with action to remake yourself into a democratic citizen. Consider your beliefs, debate issues and learn political skills. Integrate these in practical public work on a real issue or project in a student group or community organization.
GE-9, GE-11

POI 103W (3) Thinking About Politics
This course is designed to help you to read, think and write critically about important concepts and issues in the study and practice of politics. It is intended to acquaint you with some of the great debates in political thought, increase your understanding of how political systems work and help you develop your research and writing skills.
WI, GE-2

POI 104 (3) Understanding the U.S. Constitution
Rejoin the political debates of 1787 to understand the US Constitution. Compare the founding document with amendments, later usage and Supreme Court interpretations. Examine controversies over the meaning of the Constitution using the methods of political philosophers, historians, and legal scholars.
GE-5

POI 106 (3) Politics in the World Community
This introductory course examines key concepts and issues in contemporary world politics. It is a survey course covering topics including political culture, the political impact of economic globalization, the changing role of the state, nationality and ethnic identity, and issues of oppression and empowerment.
GE-8

POI 111 (3) United States Government
Become informed enough to play your part in governing the United States. Start by learning about the Constitution, our rights and freedoms, how the national government works and the opportunities and challenges of citizen influence. Political Science methods, and the challenges of citizenship are emphasized.
GE-5, GE-9

POI 201 (1-3) Issues in Politics
Various topics of current interest. Topics covered in the past include political corruption, contemporary ideologies, revolution, understanding the United States Constitution, political films. Course may be taken more than once for credit.
Fall, Spring

POI 221 (3) Introduction to Political Analysis
Elementary analytical concepts and basic techniques for understanding and doing research in political science.
Fall, Spring

POI 231 (3) World Politics
An introduction to the dynamics of interactions among sovereign states and other global actors.
Fall, Spring

POI 234 (3) Model United Nations
The course is intended to prepare students to participate in the model UN. Students learn about issues before the UN and acquire a variety of communication and negotiating skills as they model the role of ambassadors.
Variable
GE-1B, GE-8

POI 241 (3) Introduction to Comparative Politics
This course is designed to acquaint undergraduates with the data and methods of comparative politics. Approaches to the study of comparative politics may include country studies, regional studies, global surveys focusing on specific policy areas or other issues, and general comparative theory.
Fall, Spring

POI 260 (3) Introduction to Public Administration
A survey of the topics relative to administration in the public sector, including the history of public administration, organization theory, leadership and management, human resources management, budgeting and finance, policy analysis, program evaluation, and government regulation.
Fall, Spring

POI 311 (3) Ancient & Medieval Political Philosophy
A survey of Western political philosophy from Plato through the Conciliar Movement. An examination of the origin and development of basic concepts defining the relationship between the person and the state: human nature, community, authority, power, legitimacy, obligation, accountability, government, liberty and personal responsibility.
Fall

POI 312 (3) Early Modern Political Philosophy
A survey of Western political philosophy from Machiavelli through Edmund Burke. An examination of the development of ideas about government from the 15th Century through the 18th Century. Emphasis is placed on origins of political authority, purposes for which government exists, relationships between government authority and individual rights, civic virtue, republicanism and democracy.
Spring

POI 313 (3) Modern Political Philosophy
A survey of Western political philosophy from Hegel through the post-modernist writers. An examination of 19th and 20th Century political philosophers emphasizing German transcendentalism, utilitarianism, economic determinism, state socialism, neoliberalism, communitarianism and post-modernism.
Variable
POL 321 (3) Democracy and Citizenship
Students learn about active citizenship from readings and discussions on the theory and practice of democracy. Students should become more motivated to participate, feel a greater sense of empowerment, improve political skills, and better understand and appreciate democracy.
Coreq: POL 322
Fall, Spring

POL 361 (3) Public Budgeting
An overview of the budgetary and fiscal processes of public budgeting, including the politics surrounding public budgeting and fiscal policy decisions. Variable

POL 371 (3) State & Local Government
Institutions, processes, intergovernmental relations, and politics of U.S. state and local governments.
Fall

POL 391 (1-4) Colloquium
Topics will vary. Typically each session of this colloquium is lead by a different speaker. The emphasis is upon the exchange of views. A single instructor typically will coordinate the colloquium and be responsible for the administrative aspects of the course.
Pre: Consent of advisor
Variable

POL 410 (1-4) Topics in Political Philosophy
This course explores topics in political philosophy beyond what is covered in the current curriculum. Students study specialized topics of current importance in the field. Specific topics will change depending on the term and instructor. May be retaken with change of topic.
Variable

POL 414 (3) Early United States Political Thought
Political thought in the United States from the colonial period to the Civil War. Puritans, American revolution, republicanism, debate over United States Constitution, Jacksonian Democracy, Thoreau, reformers and religious and secular utopias, women’s rights, state’s rights, abolitionism, proslavery.
Variable

POL 415 (3) Recent United States Political Thought
Political thought in United States from reconstruction to present. Controversies over industrial capitalism: Social Darwinism, Utopian Socialism, Populism, Socialism, Progressivism. Women’s Rights, suffrage movement and contemporary feminism; African American political thought: liberalism; conservatism.
Variable

POL 416 (3) Nonwestern Political Philosophy
This course introduces students to the political philosophies of major thinkers from Asia, Africa and the Middle East. The course is designed to enhance students’ analytical and writing skills.
Variable

POL 420 (3) Topics: Participation and Behavior
This course explores topics in political participation and behavior beyond what is covered in the existing curriculum. Students study specialized topics of current importance in field. Specific topics will change depending on the term and instructor. May be retaken with change of topic.

POL 422 (3) Campaigns & Elections
Elections in the United States at the federal, state and local levels. Election law, history, factors affecting elections, voting behavior, campaign finance, role of parties and groups, campaign strategy and tactics. Analysis of contemporary elections.
Fall

POL 423 (3) Political Parties

POL 424 (3) Women & Politics
Politics impact on women: women’s impact on politics and governance; primary focus on United States but some comparative considerations. Variable

POL 425 (3) Terrorism & Political Violence
History, philosophy, techniques and countermeasures to terrorist and low intensity threats to public order. Both domestic and international terror. The blurring of the lines between low intensity conflict-terrorism and multinational high intensity crime. Same as LAWE 438
Variable

POL 426 (3) Racial and Ethnic Politics
Racial and ethnic minorities in U.S. politics. Public opinion on racial issues, minority representation, race (partisanship and voting behavior), and racial issues (affirmative action, school busing, immigration).

POL 427 (3) Political Psychology
Applications of psychological concepts to politics. Intergroup relations, stereotyping, political authoritarianism, presidential character and psychology, foreign policy decision-making, political tolerance, and mass violence and genocide.

POL 430 (1-4) Topics in International Relations
This course explores topics in international relations beyond what is covered in the existing curriculum. Students study specialized topics of current importance in the field. Specific topics will change depending on the term and instructor. May be retaken with a change of topic.
Pre: POL 231
Variable

POL 431 (3) International Relations
An advanced theoretical survey of the dynamics of politics and political change at the global level.
Pre: POL 231
Spring

POL 432 (3) International Law
A study of the legal norms and institutions which influence international and transnational relations.
Pre: POL 231
Variable

POL 433 (3) International Organization
Study of the function and process of the United Nations and other international organizations.
Pre: POL 231
Spring

POL 434 (3) United States Foreign Policy
This course is a general overview of US foreign policy institutions, processes, and politics. U.S. foreign policy is examined in historical, global and domestic contexts.
Pre: POL 231
Variable

POL 435 (3) Capitalism, Nationalism, and Democracy
This course explores the interaction of the three complex contemporary political and socioeconomic phenomena: the continuing expansion of global capitalism, the rise of nationalism(s), and the new wave of democratization around the world. The following topics are covered and discussed in class, with references to specific country and regional examples, (1) the impact of international economic institutions and democratization, (2) new forms of political participation in emerging democracies, (3) cultural and ethnic determinants of democratization, (4) problems of economic inequality in new democracies, (5) social and gender issues of democratic transitions, and (6) the relationship between democratic expansion and world peace. Course format will be lecture, discussion, student presentations and occasional films.
Pre: POL 241
POL 436 (3) International Political Economy
Focusing on patterns, processes, and problems of international trade, monetary, technological, and investment relations, this course examines the roles played by key government organizations in managing conflict and cooperation among states. Pre: POL 231

POL 437 (3) International Conflict Resolution
This interdisciplinary proseminar focuses on conflict resolution in the international arena. We will discuss causes of conflict, examine approaches to the study of conflict resolution, and analyze the varieties of nonviolent strategies of conflict resolution, emphasizing third party mediation. Pre: POL 231

POL 438 (3) International Relations of East Asia
An overview of the international relations of East Asia, the course examines cooperation and conflict among major powers in the area: China, Japan and the United States. Topics include Japan’s pre-WWII expansionism, China’s political transformation and North Korea’s nuclear controversy. Fall, Spring

This course offers a cross-national perspective on the politics of social policy and the welfare state in industrialized parts of the world, including North and South America and different regions of Europe. It also explores distinct national patterns of public policy solutions to the common contemporary problems of social security, poverty, and health care by paying close attention to both domestic factors and the forces of globalization that work to constrain government decisions. This multidimensional approach is designed to enable students to better understand how politics work in different ways to produce collective or social choices. Pre: POL 241

POL 440 (1-4) Topics in Comparative Politics
This course explores topics in comparative politics beyond what is covered in the existing curriculum. Students study specialized topics of current importance in the field. Specific topics will change depending on the term and instructor. May be retaken with a change of topic. Pre: POL 241 Variable

POL 441 (3) Russia & Neighboring States Politics
This course focuses on the Russian political system in relation to domestic social and economic environments and also on the role of Russia as a global actor. It examines the post communist transformation in Russia and other former Soviet republics. Pre: POL 241 Variable

POL 442 (3) South Asia: Politics & Policy
This course introduces students to the governments and politics of the South Asian countries. The historical and cultural context of politics are explored, as well as contemporary issues. Pre: POL 241 Variable

POL 443 (3) Middle East Politics
This class explores the dynamics that determine politics and effect change in the region. Using a comparative perspective for the major countries in the region, we examine such issues as Islam, nationalism, resources, regional conflicts, impact of the international system, and political development. Pre: POL 241 Fall

POL 444 (3) Latin American Politics
This course includes a detailed analysis of select countries and theoretical concerns in Latin American studies. Its general goal is to provide students with the knowledge of Latin American politics and societies in both regional and comparative contexts. Pre: POL 241 Variable

POL 445 (3) Asia Pacific Rim: Politics & Policy
Survey of the political processes, governmental institutions and policies of the countries of the Asian Pacific Rim, with special emphasis on China, Japan and the newly industrializing states of Southeast Asia. Pre: POL 241 Variable

POL 446 (3) African Politics
This course is designed to acquaint undergraduate and graduate students with key concepts and issues in the study of African politics. The historical and cultural context of politics is explored, as well as topics of current importance in the field. Pre: POL 241 Spring

POL 447 (3) European Democracies
This course discusses government institutions, political developments, and policymaking structures of contemporary Europe, including the former communist countries of East/Central Europe and the Balkans. It will also cover the ongoing process of European integration (European Union) and democratization of the former Soviet bloc countries. Some of the topics covered will include: elections, party systems, federalism and devolution, ethnic and minority policy, social policy, economic reforms, gender and politics, and cross-Atlantic relations with the US. Pre: POL 241

POL 448 (3) Political Development & Change
This course introduces students to key issues and concepts in the study of political and economic development. Both theoretical approaches and empirical data are presented. The course is also designed to enhance students’ analytical and research skills. Pre: POL 241 Fall

POL 449 (3) Comparative Criminal Justice Systems
A comparison of criminal justice philosophies, structures, and procedures found in various countries around the world. Same as LAWE 434 Variable

POL 450 (1-4) Topics in Public Law
This course explores topics in public law beyond what is covered in the existing curriculum. Students study specialized topics of current importance in the field. Specific topics will change depending on the term and instructor. May be retaken with a change of topic. Variable

POL 451 (3) Administrative Law
Legal procedures by which state and federal administrative agencies exercise legislative, judicial and executive powers. Emphasis is placed on the constitutional position of administrative agencies, the rule making process, the power of agencies to decide rights and obligations concerning individual cases, and judicial control of administrative action. Fall

POL 452 (3) Jurisprudence
Philosophy and sources of law. Schools of legal philosophy and types of legal thinking. Emphasis is placed on Classical Natural Law, Analytical Legal Positivism, Legal Realism and Critical Legal Studies. Same as LAWE 435. Fall

POL 453 (3) Constitutional Law
Review of selected U.S. Supreme Court decisions relating to the powers of the President, Congress and the Judiciary, as well as the division of power between the states and the federal government. Focus is on case briefing, underlying rationales, and the development of individual analytical abilities. Variable

POL 454 (3) Civil Liberties
Review of selected U.S. Supreme Court decisions interpreting areas such as substantive due process, abortion, speech, press, religion, and equal protection. Focus is on the rationale which underlies decisions and the development of individual analytical abilities. Same as LAWE 436 Variable
POL 455 (3) American Legal Philosophy  
This course examines major schools in American legal thought from the dawn of the 20th century to the present day. Our focus will lie with turn-of-the-century formalism; legal realism; the legal process school; law and economics; and critical legal studies. We will apply legal reasoning from these schools to selected controversial 20th-century Supreme Court cases on church-state issues, gay and lesbian rights, privacy rights, criminal defendants’ rights and other issues as appropriate.

POL 460 (1-4) Topics in Public Policy/Administration  
This course explores topics in public policy and public administration beyond what is covered in the existing curriculum. Students study specialized topics of current importance in the field. Specific topics will change depending on the term and instructor. May be retaken with a change of topic. Variable

POL 461 (3) Environmental Politics  
Politics of the natural environment (U.S. focus). Environmental and opposition values; roles of public opinion, Congress, presidency and courts in environmental policymaking. Policy areas include: air/water pollution, climate change, hazardous/nuclear waste, sustainable development, and common problems like overfishing. Variable

POL 462 (3) Collective Bargaining: Public Sector  
A broadly based introduction to the issues, processes, and techniques of public sector labor relations. Variable

POL 463 (3) Public Personnel Administration  
The development of public personnel management in federal, state and local governments; strategic planning and policy making, position management, staffing, performance management, workplace relations. Fall

POL 464 (3) Aging: Policy Issues  
The public policy process and issues as related to the generations, particularly to older Americans. Focuses on the policy context as well as the specific policies and programs. Spring

POL 470 (1-4) Topics in Institutions & Process  
This course explores topics in political institutions and process beyond what is covered in the existing curriculum. Students study specialized topics of current importance in the field. Specific topics will change depending on the term and instructor. May be retaken with a change of topic. Variable

POL 471 (3) Public Opinion and Polling Methods  
This course examines public opinion in American politics. Topics include the definition, nature and consequences of public opinion; political socialization; public opinion on selected issues; intergroup differences in public opinion, and public opinion polling methods.

POL 472 (3) Urban Government  
Politics of cities and metropolitan areas. Impact of race, class, gender, immigrant status issues. Intergovernmental relations, how citizens can influence urban politics. Variable

POL 473 (3) Legislative Process  
United States Congress and state legislatures, with some cross-national comparisons. Legislative structure, powers; districting, elections, representation, constituency relations; committee system, parties, law-making process, rules and procedure, decision-making, relations with executives and courts. Reforms. Spring

POL 474 (3) Executive Process  
Examination of executive politics in United States at a federal and state level, with some cross-national comparisons. United States presidency and executive branch, governors and state executive branches, mayors, and other local executives. Variable

POL 475 (3) Judicial Process  
An examination of the structure, jurisdiction and processes of federal and state courts. Also studied are judicial decision-making, the selection of judges and justices. Same as LAWE 437. Variable

POL 476 (3) Southern Politics  
The course examines politics in the American South. It examines the historical and cultural roots of Southern distinctiveness, traditionalistic political culture, racial conflicts, hostility toward organized labor, religious fundamentalism, tolerance of state violence, and social and moral conservatism. Major attention is paid to the realignment of white Southerners toward the Republican Party.

POL 480 (3) Topics in Political Methods  
This course explores topics in political science research methods beyond what is covered in the existing curriculum. Students study specialized topics of current importance in the field. Specific topics will change depending on the term and instructor. May be retaken with a change of topic. Variable

POL 490 (1-6) Workshop  
Selected topics. May be repeated with change of topic. Variable

POL 491 (1-12) Internship  
Field placement with a governmental agency or related organization. Provides a learning experience in which the student can integrate and apply knowledge and theory derived from curriculum. P/N only Variable

POL 492 (1-5) Individual Study  
Advanced study and research on topics not currently available in existing courses. May be repeated with a change of topic. Requires advisor and instructor approval of topic. Variable

Portuguese

Chair: Gregory Taylor

Please go to World Languages and Cultures to see course descriptions.

WLC 310  Portuguese for Spanish Speakers (4)
Psychology

College of Social & Behavioral Sciences
Department of Psychology
23 Armstrong Hall • 507-389-2724
Website: www.mnsu.edu/psych/

Chair: Andrea Lassiter

Dawn Albertson, Bradley Arsznov, Kathy Bertsch, Jeffrey Buchanan, Kristie Campana, Kevin Felter, Daniel Houlihan, Rosemary Krawczyk, Moses Langley, Karla Lassonde, Carlos Panahan, Lisa Perez, Shawna Petersen-Brown, Daniel Sachau, Sarah Sifers, Eric Sprankle, Emily Stark

Psychology is the scientific study of the effects of individual, social, physiological, developmental and environmental factors on thoughts, feelings and behavior. Psychology courses seek to teach students about the methods of psychological inquiry and the findings of psychological research.

Students study psychology because they wish to prepare for a professional career as a psychologist, because they are planning a career in which the understanding of human behavior is important, or simply because they wish to develop a greater understanding of themselves and others. The practice of psychology at the professional level requires a graduate degree beyond the bachelor’s degree.

POLICIES/INFORMATION

Admission to Major is granted by the department. Department admissions requirements are:

• a minimum of 32 earned semester credit hours.
• a minimum cumulative GPA of 2.7
• completion of PSYC 201 (Statistics) with a grade of “C-“ or better.

Contact the department for application procedures.

Residency Requirement. All majors must complete 28 of the required 40 credits within the Department of Psychology at Minnesota State University, Mankato. The department will not accept transfer courses at the 200-level for our major restricted electives, except in a case by case basis.

GPA Policy. Any Psychology course in which a grade of less than “C-“ (or P) is earned will not be counted toward a major or minor in psychology.

P/N Grading Policy. No more than 8 credits of the major or 4 credits of the minor may be taken for P/N credit. PSYC 291 is only available on a P/N basis. PSYC 497 and PSYC 499 are also normally taken for P/N credit.

Teaching Psychology. Students who intend to gain initial licensure to teach psychology in Minnesota schools need to meet the requirements of the social studies section of this catalog.

PSYCHOLOGY BA
Degree completion = 120 credits

Pre-requisites to the Major
PSYC 101 Introduction to Psychological Science (4)

Major Common Core
PSYC 201 Statistics for Psychology (4)
PSYC 211 Research Methods and Design (4)
PSYC 409 History and Systems (4)

Major Restricted Electives
(choose one course from each of the four areas)
Biological (choose 4 credits)
PSYC 321 Brain and Behavior (4)
PSYC 413 Sensation & Perception (4)
PSYC 420 Psychopharmacology (4)
PSYC 421 Behavior Neuroscience (4)
PSYC 425W Behavior Genetics (4)
Cognition (choose 4 credits)
PSYC 442 Group Psychology (3)
PSYC 443 Advanced Social Psychology (3)
PSYC 450 History of Psychology (3)
PSYC 452 Personality Theories (3)
PSYC 456 Abnormal Psychology (4)
PSYC 466 Psychology of Aging (4)
PSYC 467 Applied Behavior Analysis (4)
PSYC 472 Health Psychology (4)
PSYC 478 Psychopharmacology (4)
PSYC 497 Field Experience (1-8)
PSYC 499 Individual Study (1-4)

Required Minor. Any.

Other Graduation Requirements
Required for Bachelor of Arts (BA) degree ONLY: Language (8 credits)

PSYCHOLOGY BS
Degree completion = 120 credits

Pre-requisites to the Major
PSYC 101 Introduction to Psychological Science (4)
### Major Common Core
- PSYC 201 Statistics for Psychology (4)
- PSYC 211W Research Methods and Design (4)
- PSYC 409 History and Systems (4)

### Major Restricted Electives
(choose one course from each of the four areas)

**Biological (choose 4 credits)**
- PSYC 321 Brain and Behavior (4)
- PSYC 413 Sensation & Perception (4)
- PSYC 420 Psychopharmacology (4)
- PSYC 421 Behavior Neuroscience (4)
- PSYC 425W Behavior Genetics (4)

**Cognition (choose 4 credits)**
- PSYC 325 Introduction to Cognitive Psychology (4)
- PSYC 414 Learning (4)
- PSYC 415 Human Memory (4)
- PSYC 423 Cognitive Neuroscience (4)

**Developmental (choose 3-4 credits)**
- PSYC 433 Child Psychology (4)
- PSYC 436 Adolescent Psychology (4)
- PSYC 466 Psychology of Aging (4)

**Personality/Social (choose 3-4 credits)**
- PSYC 340 Social Psychology (4)
- PSYC 455 Abnormal Psychology (4)
- PSYC 456 Personality Theories (3)
- PSYC 458 Cultural Psychology (4)

### Major Unrestricted Electives
(choose 12-13 credits from the following courses)
- PSYC 103W Introduction to Psychological Science (4)
- PSYC 202 Careers in Psychology (1)
- PSYC 206 The Human Mind (4)
- PSYC 207 Introduction to Behavior Analysis (4)
- PSYC 230 Child Care Psychology (3)
- PSYC 240 Personal Adjustment (3)
- PSYC 289 Psychology and the Law (3)
- PSYC 291 Tutoring Psychology (1-4)
- PSYC 303 Introduction to Clinical Psychology (3)
- PSYC 304 Introduction to School Psychology (2)
- PSYC 321 Brain and Behavior (4)
- PSYC 333 Psychology of Sexual Health (3)
- PSYC 340 Social Psychology (4)
- PSYC 398 CPT: Co-Operative Experience (0)
- PSYC 405 Motivation (4)
- PSYC 407 Advanced Behavior Analysis (4)
- PSYC 413 Sensation & Perception (4)
- PSYC 414 Learning (4)
- PSYC 415 Human Memory (4)
- PSYC 416 Cognitive Psychology (4)
- PSYC 419 Psychometric Theory (4)
- PSYC 420 Psychopharmacology (4)
- PSYC 421 Behavior Neuroscience (4)
- PSYC 422 Neuropsychology (4)
- PSYC 423 Cognitive Neuroscience (4)
- PSYC 424 Physiology Psychology Laboratory (4)
- PSYC 425W Behavior Genetics (4)
- PSYC 429 Drug Dependence (3)
- PSYC 433 Child Psychology (4)
- PSYC 436 Adolescent Psychology (4)
- PSYC 441 Attitudes (3)
- PSYC 442 Group Psychology (3)
- PSYC 443 Clinical Psychology (3)
- PSYC 450 Advanced Cognitive Psychology (4)
- PSYC 451 Methods of Enhancing Performance (3)
- PSYC 453 Human Factors (3)
- PSYC 455 Abnormal Psychology (4)
- PSYC 456 Personality Theories (3)
- PSYC 458 Cultural Psychology (3)
- PSYC 460W Psychology of Women (3)

### Required Minor: Yes. Any.

#### PSYCHOLOGY MINOR

##### Required for Minor (General Education)
- PSYC 101 Introduction to Psychological Science (4)
- Choose 17 credits of electives, including at least 8 credits at the 400 level.
- PSYC Elective
- PSYC Elective
- PSYC Elective
- PSYC 400 Level Elective
- PSYC 400 Level Elective
- PSYC 400 Level Elective

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**COURSE DESCRIPTIONS**

**PSYC 101 (4) Introduction to Psychological Science**
This course is designed to provide a thorough introduction to the broad spectrum of theories and applications that make up the field of psychology.
Fall, Spring
GE-5

**PSYC 103W (3) Psychology Today**
Introduces students to major issues in society that impact their lives, behaviors, and the way they think. Course requires student to critically address controversial and non-controversial issues through clear argumentations, intensive writings, research, and presentations.
Spring
WI, GE-2

**PSYC 201 (4) Statistics for Psychology**
1.) Learn the importance of statistics for understanding human behavior. 2.) Apply basic statistical concepts to questions about human behavior. 3.) Conduct basic statistical tests and make inferences about human behavior. 4.) Prepare students in the psychology major to take PSYC 211-Research Methods and Design.
Pre: MATH 112
Fall, Spring

**PSYC 202 (1) Careers in Psychology**
Exploration of various degrees and types of careers available in psychology, and what psychologists do.
Fall, Spring

**PSYC 206 (4) The Human Mind**
An overview of psychology from the cognitive perspective. What we know about the mental processes that underlie human activities and how we study them.
Spring
GE-5

**PSYC 211 (4) Research Methods and Design**
An introduction to the major components of research methodology in psychology. This is a writing intensive course and involves the processing, interpretation, and exposition of behavioral data.
Pre: PSYC 201
Fall, Spring
PSYC 211W (4) Research Methods and Design
An introduction to the major components of research methodology in psychology. This is a writing intensive course and involves the processing, interpretation, and exposition of behavioral data.
Pre: PSYC 201
Fall, Spring
WI

PSYC 230 (3) Child Care Psychology
This course is designed to develop an understanding of major variables that impact the psychological development of children. Emphasis will be placed on what parents and other care givers can do to maximize the healthy psychological development of their children.
Fall, Spring
Diverse Cultures - Gold

PSYC 240 (3) Personal Adjustment
Understanding oneself and increasing one’s satisfaction in living.
Fall, Spring

PSYC 289 (3) Psychology and the Law
This course will introduce you to specific psychological theories and research that have been applied to the United States legal system. Course topics include eyewitness testimony and memory, false confessions, lie detection, gender and ethnicity, and jury processes, among others. Variable

PSYC 291 (1-4) Tutoring Psychology
Application of the principles of learning to the instruction of students. Permission required. Pre: PSYC 101
Fall, Spring

PSYC 303 (3) Introduction to Clinical Psychology
This course is designed for psychology majors who plan careers in professional psychology (clinical, school, etc.). The purpose of the course is to assist students in developing the skills necessary to compete for graduate school placement. It is advised that students complete this course during their sophomore or junior year.
Pre: PSYC Major and 3.0 GPA
Fall

PSYC 304 (2) Introduction to School Psychology
This course is designed to introduce students to school psychology. The course will broadly address prominent topics in the field as well as assist students in deciding on graduate school and career objectives.
Spring

PSYC 321 (4) Brain and Behavior
This course will introduce students to the relationship between the structure and function of the nervous system to the underlying biological processes of behavior.
Pre: PSYC 201, PSYC 211W
Fall, Spring

PSYC 325 (4) Introduction to Cognitive Psychology
Explores the scientific study of human cognition and provides students with broad coverage of the mental processes used to acquire, process, and retain knowledge. Students will examine basic concepts and research findings in topics of human cognition such as perception, attention, memory, reading, and problem solving. Concepts in Cognitive Psychology will be related to everyday behaviors and experiences.
Pre: PSYC 201 & PSYC 211
Fall, Spring

PSYC 333 (3) Psychology of Sexual Health
An overview of the psychological aspects of sexuality including the assessment and treatment of sexual disorders, gender development and identity, sexual orientation, behavioral effects on sexual health, and sexual offending and trauma. Variable

PSYC 340 (4) Social Psychology
An exploration of theories and research related to the ways that the social environment affects people’s behavior.
Pre: PSYC 101
Fall, Spring

PSYC 358 (4) Cultural Psychology
Cultural psychology is an interdisciplinary field that unites psychologists, anthropologists, linguists and philosophers to study how cultural meanings, practices and institutions influence and reflect individual human psychologies. Cultural influences on cognition, perception, emotion, motivation, moral reasoning, and well-being will be discussed with a view towards understanding divergent mentalities by drawing primarily from studies comparing Eastern and Western cultures, as well as some ethnic group companions within the United States. Students should come out of this course with an appreciation for the capacity for humans to create psychological diversity.
Spring

PSYC 398 (0) CPT: Co-Operative Experience
Curricular Practical Training: Co-Operative Experience is a zero-credit full-time practical training experience for one summer and on adjacent fall or spring term. Special rules apply to preserve full-time student status. Please contact an advisor in your program for complete information.
Pre: PSYC 101. At least 60 credits earned; in good standing; instructor permission; co-op contract; other prerequisites may also apply.
Fall, Spring, Summer

PSYC 405 (4) Motivation
Major concepts of human motivation and emotion, presentation of learned cognitive and biological influences on sustained behavior.
Pre: PSYC 201, PSYC 207 or PSYC 211, or consent
Fall

PSYC 409 (4) History and Systems
Examination of the historical origins of the principal contemporary psychological theories.
Fall, Spring

PSYC 413 (4) Sensation & Perception
How the senses respond to environmental stimuli and how the information they provide is organized into meaningful patterns that make up our experience of the physical world. The effects of maturation and learning in altering those patterns as also considered.
Pre: PSYC 101, PSYC 201, PSYC 207 or PSYC 211
Fall, Spring

PSYC 414 (4) Learning
This course provides a broad overview and analysis of the major theories of human and animal learning.
Pre: PSYC 101
Fall

PSYC 415 (4) Human Memory
This course covers experimental and behavioral studies of human memory including long- and short-term memory, memory for text, pictures, spatial information, and autobiographical events. Emphasis on real-world situations, including education, in which memory and learning play a role.
Pre: PSYC 201 & PSYC 211
Fall

PSYC 419 (4) Psychometric Theory
An overview of development, use, and validation of psychological tests. Topics include reliability and validity, test construction, item analysis, ethics, test administration and scoring, and computerized testing.
Pre: PSYC 201
Fall

PSYC 420 (4) Psychopharmacology
Biological foundations of the actions of psychoactive drugs. Neuroanatomy structure and function, neurophysiology, pharmacokinetics and pharmacodynamics will be covered in detail. Relevant classes of drugs will be highlighted with an eye toward their history, mechanisms of action, effects, and treatments.
Pre: PSYC 211
Spring
PSYC 421 (4) Behavior Neuroscience
Biological basis of psychological processes and behavior. Neuroanatomy, neural function, and laboratory methods of investigation will be explored in relation to topics such as sleep, memory, language, intelligence and psychological disorders. Prereq: PSYC 201, and either PSYC 207 or PSYC 211
Fall, Spring

PSYC 423 (4) Cognitive Neuroscience
The goal of neuroscience is to understand the human mind. This goal is approached by revealing the brain processes involved in how we perceive, think, remember, and move. Brain development, communication, and plasticity at the neural level are all described. Prereq: PSYC 421
Spring

PSYC 425 (4) Behavior Genetics
This writing intensive course provides an overview of the application of genetics methods to the study of behavior. We will examine the basic concepts in genetics with an emphasis on behavioral phenotypes, evolution and evolutionary psychology and the genetics of the individual differences. Prereq: PSYC 211
Variable

PSYC 425W (4) Behavior Genetics
This writing intensive course provides an overview of the application of genetics methods to the study of behavior. We will examine the basic concepts in genetics with an emphasis on behavioral phenotypes, evolution and evolutionary psychology and the genetics of the individual differences. Prereq: PSYC 211
Variable
WI

PSYC 430 (4) Advanced Topics in Biological Psychology
This course provides students with an overview of the fundamental principles and current research on selected topics in biological psychology through critical evaluation and discussion. Prereq: PSYC 201, PSYC 211W
Fall, Spring

PSYC 433 (4) Child Psychology
Physical, social, emotional, intellectual, and personality development from conception to preadolescence. Focus on interplay between maturation and experience. Prereq: PSYC 101
Fall, Spring

PSYC 436 (4) Adolescent Psychology
This class covers the development of the individual from the age of 11 to 19 years of age. Discussion will include aspects of both normal and abnormal development. Fall, Spring

PSYC 442 (3) Group Psychology
Exploring factors affecting leadership and effective group processes through lectures and discussion of theories and findings and through experiential activities. Prereq: PSYC 101
Variable

PSYC 443 (3) Advanced Social Psychology
An in-depth examination of social psychological research in laboratory and field settings. Prereq: PSYC 211W, PSYC 340 or PSYC 458
ALT

PSYC 450 (4) Advanced Cognitive Psychology
Advanced Cognitive Psychology introduces students to key research papers in the field of human cognition. Through reading, writing, and the study of experimental design, students will advance their understanding of cognitive psychology and develop their ability to critically review and evaluate research. Prereq: PSYC 325 or PSYC 414 or PSYC 415
Fall (On-Demand), Spring (On-Demand)

PSYC 455 (4) Abnormal Psychology
This course is designed to increase the student’s awareness and understanding of abnormal psychology. Students will become familiar with clinical descriptions, course of onset, and treatment regimens specific to various disorders. Prereq: 8 PSYC credits
Fall, Spring

PSYC 456 (3) Personality Theories
Major theories of normal personality formation, organization, and structure. Prereq: 8 PSYC credits
Fall, Spring

PSYC 460W (3) Psychology of Women
A critical examination of current psychological approaches to the study of women’s behavior and experience. The course will emphasize empirical ways of knowing and address psychological questions of central concern to women. Development of gender differences also will be explored. Prereq: PSYC 101
Spring
WI
Diverse Cultures - Purple

PSYC 461 (3) Marketing Psychology
Analysis of product marketing and consumer purchasing strategies and their determinants. Prereq: 8 PSYC credits
Fall

PSYC 463 (4) Survey of Industrial/Organizational Psychology
An examination of the psychological aspects of human behavior in the workplace. Topics include history of Industrial/Organizational psychology, job analysis, performance measurement, predictors of performance, making personnel decisions, training, satisfaction, social perception, motivation, communication, group process, leadership, and organizational culture. Prereq: PSYC 201, PSYC 211
Variable

PSYC 466 (4) Psychology of Aging
Aging process and development during the adult years; psychology and psychological concerns of the aging individual; dealing with death. Prereq: PSYC 101
Spring

PSYC 467 (4) Applied Behavior Analysis
This course provides an overview of the procedures and processes of behavior change in applied contexts. Topics include functional assessment, behavioral intervention planning, and specific applied behavioral analytic interventions with an emphasis on non-aversive options. Prereq: PSYC 207 or PSYC 211
Spring

PSYC 476 (4) Health Psychology
The interface of behavioral and medical science is explored. Research on environmental and learning factors in the etiology and treatment of physical disease and rehabilitation is examined. Specific topics include pain management, medical compliance, behavior disorders in nursing homes and on chronic illnesses. Prereq: Three courses in PSYC
Spring

PSYC 489 (1-5) Advanced Topics
Application of psychology to topics of current interest. May be retaken for credit. Variable

PSYC 490 (1-3) Workshop
Topics to be announced. May be retaken for credit. Fall, Spring
**Recreation, Parks & Leisure Services**

*College of Allied Health & Nursing*

**Department of Recreation, Parks And Leisure Services**

213 Highland North • 507-389-2127

Website: http://ahn.mnsu.edu/rpls/

Chair: Rachelle Hodges

Brooke Burk, Joseph Flood, Kristi Montandon, Robyn Ceurvost, Rachelle Hodges, James Wise

**Accreditations.** Council on Accreditation of Parks, Recreation, Tourism and Related Professions (COAPRT).

This program prepares a graduate to become a professional leader, supervisor and/or administrator within the private for profit, private nonprofit, and the public sectors of the recreation and leisure services field. The program includes preparation for youth programs, community education, municipal and leisure service programs; a broad variety of therapeutic recreation settings including hospitals, long-term care, advocacy organizations, consultant services; a wide variety of commercial recreation and tourism settings, nature and historical interpretation; private and public park systems including park ranger, research, educational outreach, planning, marketing, park operations; and military recreation.

The Department offers a professional core that is accredited by the Council on Accreditation of Parks, Recreation, Tourism, and Related Professions (COAPRT) with three career tracks: Leisure Planning and Management, Therapeutic Recreation, and Resource Management.

**POLICIES/INFORMATION**

To be admitted to the major, students need:

- A minimum of 32 semester credit hours
- A minimum cumulative GPA (Minnesota State Mankato and Transfer) of 2.5 or better
- Completion of IT 100 (Introduction to Computing and Applications)
- Completion of RPLS 272 (Introduction to Recreation, Parks and Leisure Services) with a “C” or better or departmental permission
- An advisor in the department
- Completion of an application for admission that includes an essay and an evaluation from the student’s RPLS 272 (Introduction to Recreation, Parks and Leisure Services) instructor.

Students who have earned fewer than 32 semester credits and/or have a minimum cumulative GPA less than 2.5 can declare as Pre-RPLS. This enables them to select an advisor. Once students meet the entrance requirements, as listed above, they must then apply for formal admittance to the major.

**PSYC 491 (1) In-Service: Issues in Behavior Therapy**

Current issues in Behavior Therapy are addressed. Students participate in off-campus didactic activities such as attendance at grand rounds at local hospitals, attendance at national, regional or local professional conferences, and augment learning with library research. Topics vary and students may repeat for credit.

Pre: Consent. Academic and experience in human services strongly recommended.

Fall, Spring

**PSYC 496 (2) Laboratory Research in Psychology**

Individualized research experience with a faculty mentor in the psychology department. You will gain specific research experience as designed by a faculty mentor. To register for this course, you must first apply and be accepted to join a psychology faculty members’ research team.

Pre: PSYC 211W Foundation,

Fall, Spring

**RecreAtion, parkS & leisure serviCes**

**PSYC 497 (1-8) Field Experience**

A learning experience integrated with the student’s course of study, to be developed with an advisor and the field experience coordinator. May be retaken for credit up to an 8 credit total for all enrollments. Available for P/N grading only.

Pre: 9 credits of PSYC

Fall, Spring

**PSYC 499 (1-4) Individual Study**

Individualized learning under faculty supervision.

Fall, Spring

**Major **

**Major Common Core**

- **RPLS 277** Recreation Leadership (3)
- **RPLS 278** Leisure and Lifestyle (3)
- **RPLS 302** Pre-Practicum Seminar (2)
- **RPLS 376** Program Planning in Rec., Parks, and Leisure Services (3)
- **RPLS 377** Public Relations (3)
- **RPLS 379** Management of Parks & Recreation Facilities (3)
- **RPLS 384** Field Experience (1)
- **RPLS 471W** Research Design in Recreation, Parks, and Leisure Services (3)
- **RPLS 473** Administration of Leisure Time Programs (3)

Majors and Pre-RPLS students must also earn a “C” or better in each RPLS class to remain in good standing in the major and be permitted to advance in the program.

**Practicum Policy.** Each student must complete the practicum requirement. Students are required to enroll in RPLS 495 (9 credits) after completing all RPLS course work. Students must also meet the following requirements to be eligible to register for Practicum:

- Completion of all other required RPLS coursework with a “C” (2.0) or better in each RPLS class,
- A minimum cumulative GPA of 2.5 in the major,
- Completion of RPLS 302 (Pre-Practicum Seminar)
- Completion of RPLS 384 (Field Experience),
- Completion of an Application for Practicum one semester before the Practicum begins. The application must be approved by the student’s faculty advisor; and
- Permission to register from the student’s faculty advisor.

**P/N Grading Policy.** Recreation, Parks and Leisure Services majors and minors must take required courses for a letter grade with the exception that the field experience, pre-practicum seminar and practicum courses must be taken on a P/N basis. Non-majors may elect RPLS courses for pass/no credit where this option is available.

**Transfer Policy.** Transfer students are required to complete a minimum of 40 semester credits of the major at Minnesota State Mankato.

**RECREATION, PARKS & LEISURE SERVICES BS**

Degree completion = 120 credits

**Pre-requisites to the Major**

Students must earn a “C” or better in RPLS 272 prior to admission to the major. In special circumstances, the department may grant admission to students who have not first completed RPLS 272. However, all RPLS majors must complete RPLS 272 as a requirement for graduation.

**IT 100** Introduction to Computing and Applications (4)

**RPLS 272** Introduction To Recreation, Parks & Leisure Services (3)

**Major Common Core**

- **RPLS 277** Recreation Leadership (3)
- **RPLS 278** Leisure and Lifestyle (3)
- **RPLS 302** Pre-Practicum Seminar (2)
- **RPLS 376** Program Planning in Rec., Parks, and Leisure Services (3)
- **RPLS 377** Public Relations (3)
- **RPLS 379** Management of Parks & Recreation Facilities (3)
- **RPLS 384** Field Experience (1)
- **RPLS 471W** Research Design in Recreation, Parks, and Leisure Services (3)
- **RPLS 473** Administration of Leisure Time Programs (3)

**Website:** http://ahn.mnsu.edu/rpls/

**Chair:** Rachelle Hodges

**Brooke Burk, Joseph Flood, Kristi Montandon, Robyn Ceurvost, Rachelle Hodges, James Wise**

**Transfer students are required to complete a minimum of 40 semester credits of the major at Minnesota State Mankato.**

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RECREATION, PARKS & LEISURE SERVICES CONTINUED

RPLS 483 Legal Processes in Recreation, Parks and Leisure Services (3)
RPLS 495 Practicum (9)

Major Emphasis: Resource Management
GEOG 373 Introduction to Geographic Information Systems (4)
RPLS 282 Wildlife as a Recreational Resource (3)
RPLS 350 Methods of Interpretation in RPLS (3)
RPLS 475 Public Land Use Policies (3)
RPLS 478 Review of Outdoor Recreation Research (3)
RPLS 479 Wildland Recreation Management (3)
RPLS 481 Park Planning (3)

Major Emphasis: Leisure Planning and Management
RPLS 274 Therapeutic Recreation Services (3)
RPLS 325 Programming for Outdoor Settings (3)
RPLS 378 Commercial Recreation and Tourism (3)
RPLS 451 Advanced Program Delivery Methods (3)
RPLS 465 Event Management (3)

Major Emphasis: Therapeutic Recreation
RPLS 274 Therapeutic Recreation Services (3)
RPLS 440 Therapeutic Recreation Assessment (3)
RPLS 447W Therapeutic Recreation Process (3)
RPLS 450 Therapeutic Recreation Techniques (3)
RPLS 489 Advancement of the Therapeutic Recreation Profession (3)

NATIONAL CERTIFICATION IN THERAPEUTIC RECREATION
(choose 0 credits) - Please see Dr. Wise, Advisor for Therapeutic Recreation
BIOL 220 Human Anatomy (4)
HP 348 Structural Kinesiology and Biomechanics (3)
KSP 235 Human Development (3)
PSYC 455 Abnormal Psychology (4)

RECREATION, PARKS & LEISURE SERVICES MINOR

Required for Minor
RPLS 272 Introduction to Recreation, Parks, and Leisure Services (3)
RPLS 376 Program Planning in Rec., Parks and Leisure Services (3)
RPLS 377 Public Relations (3)
RPLS 473 Administration of Leisure Time Programs (3)

Required for Minor
(Choose 9 credits of electives from one of the option areas)
RPLS xxx Leisure Planning & Management
RPLS xxx Therapeutic Recreation
RPLS xxx Resource Management

COURSE DESCRIPTIONS

RPLS 272 (3) Introduction to Recreation, Parks & Leisure Services
A foundation course that introduces the student to the profession of leisure services. Emphasis is placed on recreation in the student’s life, the development of the profession, the community leisure service system and careers in recreation, parks and leisure services. Fall, Spring

RPLS 274 (3) Therapeutic Recreation Services
This course is designed to be an overview of Therapeutic Recreation Services in a variety of human service settings with emphasis on the assessment, planning, implementation and evaluation of leisure and recreation programs performed by therapeutic recreation specialists serving persons with physical, mental, emotional or social limitations. Spring

Diverse Cultures - Purple

RPLS 277 (3) Recreation Leadership
Through interactive classroom assignments, students develop expertise in planning, leading and evaluating a recreational experience. Foundations of leadership, group dynamics and motivation are also included. Fall, Spring

RPLS 278 (3) Leisure and Lifestyle
This course addresses leisure wellness and incorporates leisure into life as a balancing force for healthy living. Leisure is studied in relation to: work, time and money management, stress management, healthy relationships, life choices and decisions, personal and community resources, career opportunities and in relation to current issues in politics and in the work place. Fall, Spring

GE-11

RPLS 282 (3) Wildlife as a Recreational Resource
A broad survey course that is concerned with game and non-game wildlife species. Habitat is stressed throughout the course as a necessity for maintaining a species. Funding of wildlife programs and changing attitudes of the public are concerns throughout this course. Fall, Spring

GE-10

RPLS 302 (2) Pre-Practicum Seminar
This course is designed to be taken two semesters before students completes their practicums. It will help students identify and secure a practicum. It will also help students establish reasonable expectations for a quality practicum experience. Fall, Spring

RPLS 325 (3) Programming for Outdoor Settings
This course exposes the parks and recreation major to basic outdoor skills. The camping movement in America is discussed as well as progressional planning strategies for outdoor recreation. Fall

RPLS 350 (3) Methods of Interpretation in RPLS
Students will be introduced to various methods and skills used to design and deliver interpretive programs and materials to various audiences. Students will also apply the philosophies, concepts, theories and practical skills necessary for implementing effective interpretive programs. Fall

RPLS 376 (3) Program Planning in Recreation, Parks, & Leisure Services
The emphasis of this course is on the program planning process-from creating the idea through evaluation of the program-and how it fits into the agency profile. Various formats such as leisure learning, tournaments, trips and outings, and special events are highlighted for a variety of leisure service agencies. Fall, Spring

RPLS 377 (3) Public Relations
Focuses on the total planning, implementation and techniques of effective public relations. Fall, Spring

RPLS 378 (3) Commercial Recreation and Tourism
This course is a survey of commercial recreation and tourism that examines the basic types of commercial recreation and tourism providers, some basic trends in commercial recreation and the social, economic and environmental impacts of commercial recreation and tourism. Fall

RPLS 379 (3) Management of Parks and Recreation Facilities
This course introduces students to basic management and planning techniques for a wide variety of indoor and outdoor recreation facilities. Fall, Spring

RPLS 384 (1) Field Experience
Students are required to complete the Field Experience in order to be eligible to enroll in RPLS 495 Practicum. Students will contract with the advisor to complete 100 hours of volunteer or paid experience in a leisure services organization. Written permission required from the advisor. Fall, Spring

GE-11
RPLS 398 (0) CPT: Co-Operative Experience
Curricular Practical Training: Co-Operative Experience is a zero-credit full-time practical training experience for one summer and one adjacent fall or spring term. Special rules apply to preserve full-time student status. Please contact an advisor in your program for complete information.
Pre: At least 60 credits earned; in good standing; instructor permission; co-op contract; other prerequisites may also apply.
Fall, Spring, Summer

RPLS 440 (3) Therapeutic Recreation Assessment
Students will learn about and gain experience with assessment as it is practiced in therapeutic recreation settings. The course focuses on the basis of assessment, the four most frequently utilized information gathering techniques, and commonly used assessment instruments.
Pre: RPLS 274
Fall

RPLS 447W (3) Therapeutic Recreation Process
This course details the Therapeutic Recreation process: assessment, planning, implementation and evaluation in relation to individual treatment programs in Therapeutic Recreation Service. Emphasis is on interpreting assessment data, writing measurable goals and objectives, implementing an actual program and documenting program results in terms currently used in human service settings.
Pre: RPLS 274
Fall

RPLS 447W (3) Therapeutic Recreation Process
Fall

RPLS 450 (3) Therapeutic Recreation Techniques
This course is designed to teach a wide variety of interventions and facilitation techniques used in therapeutic recreation programs to give the student knowledge, practice and ability in the implementation of leisure and recreation programs for persons with special needs.
Pre: RPLS 274 and RPLS 447W
Spring

RPLS 451 (3) Advanced Program Delivery Methods
Students will study the recreation needs of various groups of people and learn the best practices for serving those needs. The emphasis will be on program planning guidelines appropriate for each group across the lifespan and for diverse groups.
Spring

RPLS 465 (3) Event Management
This course introduces students to special event planning, development, budgeting, promotion and evaluation. The use, recruitment, evaluation and recognition of volunteers as well as fundraising strategies are discussed and employed.
Pre: RPLS 377
Spring

RPLS 471W (3) Research Design in Recreation, Parks and Leisure Services
This course guides the student through the survey process including the creation and implementation of a questionnaire. The data collected are then analyzed and a formal report is prepared. Computer skills are emphasized.
Fall, Spring

RPLS 473 (3) Administration of Leisure Time Programs
Development of approaches in staffing, planning, organization, coordination, evaluation and directing programs and personnel. Permission required from professor.
Fall, Spring

RPLS 475 (3) Public Land Use Policies
Traces the history of public lands in the United States, their acquisition and disposal. Congressional charges to executive agencies managing national lands and state and local government responsibilities for managing nonfederal public lands. Attention is given to international oceanic resources and how the international community will manage these resources.
Fall, Spring

RPLS 478 (3) Review of Outdoor Recreation Research
This course examines major topics of social science research aimed at learning the preferences, attitudes, behaviors, experiences and benefits of visitors to outdoor recreation areas.
Spring

RPLS 479 (3) Wildland Recreation Management
This course introduces students to some basic natural resource and visitor management techniques in outdoor recreation settings. Topics such as interpretation and environmental education, visitor management and ecosystem management are among those discussed.
Spring

RPLS 481 (3) Park Planning
Traces the history of the parks movement in the United States, selected legislation establishing parks and the enactment of funding legislation. The importance of public participation, planning and political strategies are stressed.
Fall

RPLS 482 (3) Leisure and Older Adults
Leisure as an integral aspect of successful aging is the focus of this course which includes: leisure in relation to physical, intellectual, social and psychological aspects of aging and successful leisure programming in community based settings and in long term care.
Variable

RPLS 483 (3) Legal Processes in Recreation, Parks and Leisure Services
This course investigates legislative and budgetary processes utilized in the public, nonprofit, and private sectors of the leisure services profession.
Fall, Spring

RPLS 485 (1-3) Selected Topics
Fall, Spring

RPLS 486 (1-4) Minor Practicum
Course work set through student/advisor agreement.
Fall, Spring

RPLS 489 (3) Advancement of the Therapeutic Recreation Profession
This course is designed to develop the student’s ability to function as a member of the interdisciplinary treatment team and practice critical thinking, writing and oral skills related to treatment decisions, ethical issues, professional issues, and health care delivery systems.
Fall

RPLS 490 (2-4) Workshop
Variable

RPLS 495 (9) Practicum
The Practicum, which is one full semester of professional work experience, is completed at the end of the student’s course work and requires 560 hours of service at a department approved agency where the student works full time for 14 consecutive weeks. Written permission is required from the student’s advisor one semester in advance.
Pre: RPLS 302, RPLS 384. Completion of major coursework with a 2.5 GPA in the major courses.

RPLS 497 (1-8) Internship
Course based on student/advisor agreement.
Fall, Spring

RPLS 498 (1-8) Internship
Course based on student/advisor agreement.
Fall, Spring

RPLS 499 (1-4) Individual Study
Course work set by student/advisor discussion.
Fall, Spring

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Rehabilitation Counseling

College of Allied Health and Nursing
Department of Speech, Hearing & Rehabilitation Services
103 Armstrong Hall • 507-389-1414
http://ahn.mnsu.edu/rehabilitation/
MRS/TTY: 800-627-3529

Chair: Bonnie Berg, Ph.D.
Brian Kamnetz, Ph.D.; Andrew Phemister, Ph.D.

The Rehabilitation Counseling Program prepares Rehabilitation Counselors to become fully competent, dedicated, and effective professionals, who embrace and practice the rehabilitation core values.

People with disabilities share all of the rights, privileges, and responsibilities enjoyed by all members of society and shall be treated as full and equal participants in society without regard to type or degree of disability.

When people with disabilities require or request assistance in order to achieve the rights, privileges, and responsibilities afforded by society, that assistance will be provided by a qualified, conscientious, and dedicated provider who promotes informed choice, empowerment, and the integrity of the individual.

In addition to being guided by the mission statement listed above, the Program has adopted and advocates for practices that follow the Code of Professional Ethics for Rehabilitation Counselors, adopted by the Commission on Rehabilitation Counselor Certification, effective January 1, 2010. All Rehabilitation Counseling Program faculty and staff strive to conduct themselves in a manner that is consistent with this Code, while encouraging and educating students to do the same.

The Rehabilitation Counseling Program at Minnesota State Mankato has been offered at the Master’s degree level since 1959, with its first graduate completing the program in 1960.

COURSE DESCRIPTIONS

REHB 110W (3) Sensitivity to Disability
Promotes an understanding of the impact of physical and mental disabilities on people in their daily lives through in-class contacts and exercises with and about persons with disabilities.
Fall, Spring
WI, GE-7
Diverse Cultures - Gold

REHB 499 (1-4) Individual Study
A project performed under the prior approval and close supervision of a faculty member to enhance the student’s education.
Pre: Consent
Variable

Russian

College of Arts & Humanities
Department of World Languages & Cultures
227 Armstrong Hall • 507-389-2116
Website: www.mnsu.edu/languages

Chair: Gregory Taylor

Although Minnesota State Mankato does not offer a degree in Russian, students may register for Russian courses offered at Gustavus Adolphus College for Minnesota State Mankato credit.

Scandinavian Studies

College of Arts and Humanities
Department of World Languages & Cultures
227 Armstrong Hall • 507-389-2917
Website: www.mnsu.edu/languages
Fax: 507-389-5887

Chair: Gregory Taylor
Director: Rennesa Osterberg Jessup, Ph.D.

The Scandinavian Studies Program is an interdisciplinary program that combines acquisition of a Scandinavian language with study of the diversity and richness of the greater Nordic cultural region of Norway, Sweden, Denmark, Finland, and Iceland. With a major or minor in Scandinavian Studies, students become familiar with the heritage of Scandinavia from the Vikings to the modern day and learn more about the role of the Nordic nations in communications technology, environmental awareness, social equality, and international peace initiatives in the contemporary world. A Scandinavian Studies minor can enhance a traditional major and serve to provide a global focus to students’ education, whether in engineering or health sciences, international relations or international business, art or literature. It is recommended that students combine a Scandinavian Studies major or minor with studies in fields such as art, history, international business, international relations, World Languages & Cultures, political science, engineering or social work.

The Scandinavian Studies Program involves a variety of Minnesota State Mankato departments and programs. Minnesota State Mankato also has study abroad options in Norway, Sweden, and Finland for Scandinavian Studies majors and minors. Additional courses, particularly for majors, may also be completed in language, literature, history, and peace studies at Gustavus Adolphus College in nearby St. Peter, Minnesota. Minnesota State Mankato students carrying 12 semester credits may pay Minnesota State Mankato tuition to take a course at Gustavus Adolphus College that is not offered at Minnesota State Mankato.

POLICIES/INFORMATION

GPA Policy. A grade of “C-” or better must be earned for major or minor credit.

P/N Grading Policy. Work done for a minor or major must be done for a letter grade, except the Minor Project in Scandinavian Studies (1 credit) which must be taken P/N.
Norwegian and Swedish elementary language sequences start in the fall of every other year.

SCAN 101, SCAN 102, SCAN 111, and SCAN 112 meet General Education requirements for Goal Area B: Global Perspectives.

SCAN 250, SCAN 299, SCAN 450, SCAN 460 and SCAN 499 may be repeated with different topics.

<table>
<thead>
<tr>
<th>SCANDINAVIAN STUDIES BA</th>
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<tbody>
<tr>
<td>Degree completion = 120 credits</td>
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</tbody>
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The Bachelor of Arts major in Scandinavian Studies requires 32 semester credits, including a core of language courses (usually at least two years), a 3-credit “capstone” experience, and approved electives. Students interested in focusing on Scandinavian languages and literature may choose to major in Scandinavian Studies, but they are strongly encouraged to pursue a second major in other BA programs or two minors in other BA programs that will complement students’ interdisciplinary studies. One minor is required. Majors will work closely with the Scandinavian Studies advisor to develop a course of study that offers flexibility to suit students’ needs and interests.

**Major Common Core**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
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<tbody>
<tr>
<td>SCAN 490</td>
<td>Major Project in Scandinavian Studies (3)</td>
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</table>

*(Choose 1 Cluster (choose four semesters of either Norwegian or Swedish.)*

**Norwegian Language** (choose 10-16 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
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<tbody>
<tr>
<td>SCAN 101</td>
<td>Elementary Norwegian I (4)</td>
</tr>
<tr>
<td>SCAN 102</td>
<td>Elementary Norwegian II (4)</td>
</tr>
<tr>
<td>SCAN 292</td>
<td>Intermediate Norwegian I (1-4)</td>
</tr>
<tr>
<td>SCAN 293</td>
<td>Intermediate Norwegian II (1-4)</td>
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</tbody>
</table>

**Swedish Language** (choose 10-16 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>SCAN 111</td>
<td>Elementary Swedish I (4)</td>
</tr>
<tr>
<td>SCAN 112</td>
<td>Elementary Swedish II (4)</td>
</tr>
<tr>
<td>SCAN 294</td>
<td>Intermediate Swedish I (1-4)</td>
</tr>
<tr>
<td>SCAN 295</td>
<td>Intermediate Swedish II (1-4)</td>
</tr>
</tbody>
</table>

**Major Unrestricted Electives** (choose 13-19 credits)

You need to receive approval by the director of Scandinavian Studies before the beginning of the semester to ensure that you will be able to apply credit achieved in courses from affiliated programs (courses with a prefix other than “SCAN”) toward a major or minor in Scandinavian Studies. If you wish to take any course not listed below at Gustavus Adolphus, please see their catalog and consult the director of Scandinavian Studies.

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 436W</td>
<td>Anthropology of Aging (3)</td>
</tr>
<tr>
<td>ART 413</td>
<td>Scandinavian Art (3)</td>
</tr>
<tr>
<td>ART 492</td>
<td>Art History Seminar (1-6)</td>
</tr>
<tr>
<td>ART 494</td>
<td>Topics (3)</td>
</tr>
<tr>
<td>ART 499</td>
<td>Individual Study (1-6)</td>
</tr>
<tr>
<td>ENG 499</td>
<td>Individual Study (1-4)</td>
</tr>
<tr>
<td>GER 200</td>
<td>Aging: Interdisciplinary Perspectives (3)</td>
</tr>
<tr>
<td>GER 485</td>
<td>Topics in Gerontology (1-3)</td>
</tr>
<tr>
<td>GER 499</td>
<td>Individual Study in Gerontology (1-4)</td>
</tr>
<tr>
<td>LAW 434</td>
<td>Comparative Criminal Justice System (3)</td>
</tr>
<tr>
<td>MASS 499</td>
<td>Individual Study in Mass Media (1-2)</td>
</tr>
<tr>
<td>POL 439</td>
<td>Comparative Social Policy: The Welfare State in Europe and the Americas (3)</td>
</tr>
<tr>
<td>POL 447</td>
<td>European Democracies (3)</td>
</tr>
<tr>
<td>POL 449</td>
<td>Comparative Criminal Justice (3)</td>
</tr>
<tr>
<td>SCAN 150W</td>
<td>The Nordic Countries: An Introduction (4)</td>
</tr>
<tr>
<td>SCAN 250</td>
<td>Selected Topics (1-4)</td>
</tr>
<tr>
<td>SCAN 251W</td>
<td>Scandinavian Cultures: The Sami (4)</td>
</tr>
<tr>
<td>SCAN 299</td>
<td>Individual Study (1-4)</td>
</tr>
<tr>
<td>SCAN 450</td>
<td>Special Topics (1-4)</td>
</tr>
<tr>
<td>SCAN 451</td>
<td>Scandinavian Crime Fiction (4)</td>
</tr>
<tr>
<td>SCAN 460</td>
<td>Topics in Scandinavian Film (4)</td>
</tr>
</tbody>
</table>

**Scandinavian Studies Continued**

Required Minor: Yes. Any.

**SCANDINAVIAN STUDIES MINOR**

A minor in Scandinavian Studies requires 20 semester credits and can be completed at Minnesota State Mankato. The core of at least 8 credits in Norwegian or Swedish language is supplemented by a 1-credit “capstone” experience plus approved electives. This interdisciplinary minor can be combined with any major at Minnesota State Mankato. Because the minor is tailored to any major interests, students should consult the Scandinavian Studies program director as well as the major advisor.

**Required for Minor**

**Capstone Project (1 credit)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCAN 492</td>
<td>Minor Project in Scandinavian Studies (1)</td>
</tr>
</tbody>
</table>

**NORWEGIAN**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>SCAN 101</td>
<td>Elementary Norwegian I (4)</td>
</tr>
<tr>
<td>SCAN 102</td>
<td>Elementary Norwegian II (4)</td>
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</tbody>
</table>

**SWEDISH**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCAN 111</td>
<td>Elementary Swedish I (4)</td>
</tr>
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<td>SCAN 112</td>
<td>Elementary Swedish II (4)</td>
</tr>
</tbody>
</table>

**Required for Minor (11 credits)**

Some elective courses concentrate exclusively on study of Scandinavia, while others have a strong component relating to the Nordic countries. Students taking these related courses for Scandinavian Studies credit should inform the instructor, and the students will be required to write a paper or complete a project on a Nordic topic. The department offers at least one topics course per semester. Individual study courses can also be arranged in several departments with faculty who have special interests in Scandinavia. Some elective courses may be taken at Gustavus Adolphus College with approval of the Minnesota State Mankato Director of Scandinavian Studies.

You need to receive approval by the director of Scandinavian Studies before the beginning of the semester to ensure that you will be able to apply credit achieved in courses from affiliated programs (courses with a prefix other than “SCAN”) toward a major or minor in Scandinavian Studies.

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</table>
### COURSE DESCRIPTIONS

**SCAN 101 (4) Elementary Norwegian I**  
An introduction to the basic skills of listening, speaking, reading, and writing coupled with culture.  
Pre: SCAN 102 or equivalent  
Fall  
GE-8

**SCAN 102 (4) Elementary Norwegian II**  
An introduction to the basic skills of listening, speaking, reading, and writing coupled with culture.  
Pre: SCAN 101  
Spring  
GE-8

**SCAN 111 (4) Elementary Swedish I**  
An introduction to the basic skills of listening, speaking, reading, and writing, coupled with cultural notes.  
Fall (On-Demand), Spring (On-Demand)  
GE-8

**SCAN 112 (4) Elementary Swedish II**  
An introduction to the basic skills of listening, speaking, reading, and writing, coupled with cultural notes.  
Pre: SCAN 111  
Fall (On-Demand), Spring (On-Demand)  
GE-8

**SCAN 150W (4) The Nordic Countries: Interdisciplinary Introduction**  
This course offers an interdisciplinary introduction to the Nordic countries (Norway, Sweden, Denmark, Finland, Iceland, Greenland, Faroe Islands); it will provide an overview of their geography, history, culture, society and current political situation in comparison to the U.S.  
Fall, Spring  
WI, GE-6, GE-8  
Diverse Cultures - Purple

**SCAN 250 (1-4) Selected Topics**  
Special topics courses in Scandinavian Studies will deal with a variety of topics regarding the history, literature, art, and culture of the Nordic countries. SCAN 250 courses are planned with the interests and needs of more advanced students in mind; they offer broad introductions to the most important artifacts and disciplines in the respective field. Writing assignments offer opportunities to learn to discuss adequately and critically central issues and theories. The course may be repeated for credit.  
Fall, Spring

**SCAN 251W (4) Scandinavian Cultures: The Sami**  
In this course, students will learn about the indigenous population of Scandinavia, the Sami. Students will investigate Sami traditions and cultural production along with the historical and contemporary sociopolitical standing of the Sami within the majority cultures of Scandinavia.  
Variable  
WI, GE-6, GE-8  
Diverse Cultures - Purple

**SCAN 292 (1-4) Intermediate Norwegian I**  
Development of reading and listening skills, oral and writing practice within a cultural context. To be arranged with instructor prior to registration.  
Pre: SCAN 102 or equivalent  
Fall

**SCAN 293 (1-4) Intermediate Norwegian II**  
Development of reading and listening skills, oral and writing practice within a cultural context. To be arranged with instructor prior to registration.  
Pre: SCAN 102 or equivalent  
Spring

**SCAN 294 (1-4) Intermediate Swedish I**  
Development of reading and listening skills, oral and writing practice within a cultural context. To be arranged with instructor prior to registration.  
Pre: SCAN 112 or equivalent

**SCAN 295 (1-4) Intermediate Swedish II**  
Development of reading and listening skills, oral and writing practice within a cultural context. To be arranged with instructor prior to registration.  
Pre: SCAN 112 or equivalent

**SCAN 299 (1-4) Individual Study**  
Variable

**SCAN 302**

**SOWK 255 Global Responses to Human Need (3)**

**SCAN 450 (1-4) Special Topics**  
Special topics courses in Scandinavian Studies will deal with a variety of topics regarding the history, literature, art, and culture of the Nordic countries. SCAN 450 courses are planned with the interests and needs of more advanced students in mind; they build on and expand upon clearly defined methods and critical approaches which the students will explore both in class discussions and writing assignments. The course may be repeated for credit.  
Fall, Spring

**SCAN 451 (4) Scandinavian Crime Fiction**  
In this course, students will read about crime and deviance in Scandinavia and will develop an understanding of how a culture conceptualizes its ethico-political struggles through literature.  
Variable  
Diverse Cultures - Purple

**SCAN 460 (4) Topics in Scandinavian Film**  
Revolving topics in Scandinavian Film. Students will explore issues of cultural and historical importance as presented through the medium of film. Written assignments and exams allow students to practice and display analytical and interpretive techniques. May be repeated for credit.  
Variable

**SCAN 490 (3) Major Project in Scandinavian Studies**  
Individual project demonstrating ability to synthesize experience in interdiscipli- nary major, drawing together different areas of study focusing on specific topic, problem or concern and demonstrating ability to use a Scandinavian language. Approval of Scandinavian Studies program director required.  
Pre: Admission to college as Scandinavian Studies Major.

**SCAN 492 (1) Minor Project in Scandinavian Studies**  
Individual project demonstrating ability to synthesize experience in interdisciplinary minor, drawing together different areas of study focusing on specific topic, problem or concern and demonstrating elementary use of a Scandinavian language. Approval of the Scandinavian Studies program director required.  
Must be taken P/N.

**SCAN 499 (1-4) Individual Study**  
Advanced study of works by selected Swedish or Norwegian authors.  
Pre: SCAN 299 or SCAN 299  
Variable
Science Teaching
Websites:  cset.mnsu.edu/biology/  
cset.mnsu.edu/chemgeol/  
cset.mnsu.edu/geo/  
cset.mnsu.edu/geography/

Required Minor: None.

POLICIES/INFORMATION

Each major requires the 31 credit general core and a science emphasis that ranges from 27-35 credits of science and science teaching methods courses. In addition, the student must complete a 30 credit professional education component and the 3 credit Drug Education course.

The University Science Teaching Program must meet specific competencies to meet professional accreditation and licensure requirements. To stay within the required degree limits of 120 credit hours, students are strongly advised to select courses within the 44 credit general education program that meet both teaching program and general education needs. It is important for the student to meet with their advisor to assist with program planning.

A minor is not required for any of the science teaching programs; however, to broaden one’s teaching opportunities, double majors are encouraged. For further details, the student should check with one of the science teaching advisors for an overview of available opportunities.

GPA Policy. Students obtaining a degree in science teaching must maintain a minimum cumulative GPA of 2.50 in the sciences. Students who are not science teaching majors should consult an advisor concerning possible additional course requirements.

P/N Grading Policy. Courses leading to a degree in science teaching may not be taken on a P/N basis except where P/N grading is mandatory.

SCIENCE TEACHING PROGRAMS

Required for all Science Teaching Programs unless otherwise noted.

Required General Education

HLTH 240 Drug Education (3)

Required General Science Core (31 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AST 101</td>
<td>Introduction to Astronomy (3)</td>
</tr>
<tr>
<td>BIOL 105</td>
<td>General Biology I (4)</td>
</tr>
<tr>
<td>BIOL 106</td>
<td>General Biology II (4)</td>
</tr>
<tr>
<td>CHEM 201</td>
<td>General Chemistry I (5)</td>
</tr>
<tr>
<td>GEOG 121</td>
<td>Physical Geology (4)</td>
</tr>
<tr>
<td>PHYS 221</td>
<td>Principles of Physics I (4)*</td>
</tr>
<tr>
<td>PHYS 222</td>
<td>Principles of Physics II (4)*</td>
</tr>
</tbody>
</table>

* PHYS 221, PHYS 222, PHYS 223, PHYS 232 and PHYS 233 may substitute. The additional credit hours will reduce the number of credits in the advanced physics courses.

Required for All Majors . (Professional Education, 30 credits)
See the SECONDARY EDUCATION section for additional information about admissions to Professional Education, and course requirements.

Required Minor: None.

CHEMISTRY 9-12 BS TEACHING

Degree completion = 120 credits

Required General Education

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 105</td>
<td>General Biology I (4)</td>
</tr>
<tr>
<td>CHEM 201</td>
<td>General Chemistry I (5)</td>
</tr>
<tr>
<td>HLTH 240</td>
<td>Drug Education (3)</td>
</tr>
<tr>
<td>MATH 121</td>
<td>Calculus I (4)</td>
</tr>
</tbody>
</table>

Major Common Core

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 202</td>
<td>General Chemistry II (5)</td>
</tr>
<tr>
<td>CHEM 305</td>
<td>Analytical Chemistry (4)</td>
</tr>
<tr>
<td>CHEM 316</td>
<td>Descriptive Main Group Chemistry (3)</td>
</tr>
<tr>
<td>CHEM 322</td>
<td>Organic Chemistry I (4)</td>
</tr>
<tr>
<td>CHEM 324</td>
<td>Organic Chemistry II (3)</td>
</tr>
<tr>
<td>CHEM 325</td>
<td>Organic Chemistry II Lab (1)</td>
</tr>
<tr>
<td>CHEM 340</td>
<td>Quant for Chem and Biochem I (1)</td>
</tr>
<tr>
<td>CHEM 341</td>
<td>Quant for Chem and Biochem II (1)</td>
</tr>
<tr>
<td>CHEM 360</td>
<td>Principles of Biochemistry (4)</td>
</tr>
<tr>
<td>CHEM 381W</td>
<td>Introduction to Research (2)</td>
</tr>
<tr>
<td>CHEM 440</td>
<td>Physical Chemistry I (3)</td>
</tr>
<tr>
<td>CHEM 450</td>
<td>Physical Chemistry Laboratory I (1)</td>
</tr>
<tr>
<td>CHEM 479</td>
<td>Teaching Physical Science (4)</td>
</tr>
<tr>
<td>CHEM 495</td>
<td>Senior Seminar (1)</td>
</tr>
<tr>
<td>PHYS 211</td>
<td>Principles of Physics I (4)</td>
</tr>
<tr>
<td>PHYS 212</td>
<td>Principles of Physics II (4)</td>
</tr>
</tbody>
</table>

Other Graduation Requirements

Professional Education

LEVEL 1

KSP 202 may be taken in either LEVEL 1 or LEVEL 2. KSP 464 must be taken in all levels but credit will be awarded in LEVEL 4 only.

KSP 202 Technology Integration in the Classroom (2)
KSP 220W Human Relations in a Multicultural Society (3)
KSP 222 Introduction to the Learner and Learning (2)
KSP 464 Professional Seminar (1)

LEVEL 2

KSP 202 may be taken in either LEVEL 1 or LEVEL 2. KSP 464 must be taken in all levels but credit will be awarded in LEVEL 4 only.

KSP 330 Planning, Instruction, and Evaluation in the Classroom (5)
KSP 464 Professional Seminar (1)

LEVEL 3

KSP 464 must be taken in all levels but credit will be awarded in LEVEL 4 only.

KSP 440 Creating Learning Environments to Engage Children, Families, and Community (3)
KSP 442 Reading, Literacy, and Differentiated Instruction in Inclusive Classrooms (3)
KSP 464 Professional Seminar (1)

LEVEL 4

Course credit for KSP 464 is awarded in LEVEL 4, but must be taken in all levels.

KSP 464 Professional Seminar (1)
KSP 477 5-12 Student Teaching (11)

Required Minor: None.

EARTH SCIENCE 5-12 BS TEACHING

Degree completion = 120 credits

Required General Education (3 credits)
Required General Science Core (31 credits)
Required Professional Education (30 credits)

Required for Major

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AST 125</td>
<td>Observational Astronomy (3)</td>
</tr>
<tr>
<td>GEOG 217</td>
<td>Weather (4)</td>
</tr>
<tr>
<td>GEOG 315</td>
<td>Geomorphology (3)</td>
</tr>
<tr>
<td>GEOG 410</td>
<td>Climatic Environments (3)</td>
</tr>
<tr>
<td>GEOG 122</td>
<td>Earth History (4)</td>
</tr>
</tbody>
</table>
SCIENCE TEACHING CONTINUED

GEOL 201  Elements of Mineralogy (4)
GEOL 479  Teaching Earth Sciences (4)

Required for Major (Research, 1-3 credits)
GEOG 440  Field Studies: Colorado (3)
GEOG 440  Field Studies: Field Methods (3)
GEOL 480  Seminar (1-4)
GEOL 499  Individual Study (1-3)
GEOL 499  Individual Study (1-5)

Required for Major (Electives, 9 credits)
(Must choose from at least two departments)
AST 102  Introduction to the Planets (3)
AST 104  Introduction to Experimental Astronomy (2)
GEOG 373  Introduction to Geographic Information Systems (4)
GEOL 420  Conservation of Natural Resources (3)
GEOL 330  Structural Geology (4)
GEOL 350  Environmental Geology (4)
GEOL 450  Hydrogeology (3)

Required Minor: None.

LIFE SCIENCE 5-12 BS TEACHING
Degree completion = 120 credits

Required General Education
AST 101  Introduction to Astronomy (3)
BIOL 105  General Biology I (4)
CHEM 201  General Chemistry I (5)
GEOL 121  Physical Geology (4)
HLTH 240  Drug Education (3)
KSP 220W  Human Relations in a Multicultural Society (3)
PHYS 211  Principles of Physics I (4)

Math Requirement (choose 3-4 credits)
MATH 113  Trigonometry (3)
MATH 115  Precalculus Mathematics (4)

Major Common Core
BIOL 106  General Biology II (4)
BIOL 211  Genetics (4)
BIOL 215  General Ecology (4)
BIOL 220  Human Anatomy (4)
BIOL 270  Microbiology (4)
BIOL 301  Evolution (2)
BIOL 485  Biology Teaching Methods and Materials (4)
GEOL 310  Earth and Space Systems (3)
PHYS 212  Principles of Physics II (4)

Independent Study (choose 1 credits)
At least one credit is required. Additional credits will be counted as electives.
BIOL 499  Individual Study (1-4)

Major Restricted Electives (choose 4 credits)
BIOL 408  Vertebrate Ecology (4)
BIOL 409  Advanced Field Ecology (4)

Major Unrestricted Electives
Choose at least 9 additional credits of 300-400 level Biology courses.

Other Graduation Requirements
Professional Education

LEVEL 1
KSP 202 may be taken in LEVEL 1 or LEVEL 2. KSP 464 must be taken in all levels, but credit will be awarded in LEVEL 4 only.
KSP 202  Technology Integration in the Classroom (2)
KSP 220W  Human Relations in a Multicultural Society (3)

KSP 202 may be taken in LEVEL 1 or LEVEL 2. KSP 464 must be taken in all levels, but credit will be awarded in LEVEL 4 only.
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KSP 440  Creating Learning Environments to Engage Children, Families, and Community (3)
KSP 442  Reading, Literacy, and Differentiated Instruction in Inclusive Classrooms (3)
KSP 464  Professional Seminar (1)

LEVEL 3
Course credit for KSP 464 is awarded in LEVEL 4, but it must be taken in all levels.
KSP 464  Professional Seminar (1)
KSP 477  5-12 Student Teaching (11)

PHYSICS (5-12) BS TEACHING
Degree completion = 120 credits

Required General Education
AST 101  Introduction to Astronomy (3)
BIOL 105  General Biology I (4)
CHEM 201  General Chemistry I (5)
GEOL 121  Physical Geology (4)
HLTH 240  Drug Education (3)
KSP 220W  Human Relations in a Multicultural Society (3)
MATH 121  Calculus I (4)

Major Common Core
PHYS 211, PHYS 221, PHYS 222, PHYS 232 and PHYS 233 may substitute for PHYS 211 and PHYS 212. The additional credit hours will reduce the number of credits on the advanced physics courses.
BIOL 106  General Biology II (4)
GEOL 310  Earth and Space Systems (3)
PHYS 211  Principles of Physics I (4)
PHYS 212  Principles of Physics II (4)
PHYS 335  Modern Physics I (3)
PHYS 336  Modern Physics II (3)
PHYS 465  Computer Applications in Physics (3)
PHYS 482  Teaching Methods and Materials in Physical Science (4)

2 credits are required for the core.
PHYS 381  Tutoring Physics (1-3)

2 credits are required for the core.
PHYS 493  Undergraduate Research (1-6)

Physics Electives (choose 8 credits)
This is reduced to 4 credits if PHYS 221, PHYS 222, PHYS 223, PHYS 232 and PHYS 233 have been taken in place of PHYS 211 and PHYS 212. The additional credit hours will reduce the number of credits on the advanced physics courses.
PHYS 300-499

Other Graduation Requirements
See the SECONDARY EDUCATION section for admission requirements to Professional Education and a list of required professional education courses.
Secondary 5-12 & K-12 Professional Education

Art Education (K-12)
Business Education (collaborative program with Winona) (5-12)
Communication Arts and Literature (5-12)
Dance Education (K-12)
Developmental Adapted Physical Education (K-12)
English as a Second Language (K-12)
Family Consumer Science (5-12)
Health Sciences (5-12)
Instrumental and Vocal Music (K-12)
Mathematics (5-12)
Physical Education (K-12)
Science (Life Science, Chemistry, Earth & Space Sciences, Physics) (5-12)
Social Studies (5-12)
Visual Arts (K-12)
World Languages and Cultures (Spanish, German, and French) (K-12)

College of Education
Department of Educational Studies: K-12 & Secondary Programs (KSP)
Coordinator of Undergraduate Licensure, Scott Page, Ph.D.
Phone: 507-389-1788
Coordinator of Graduate Licensure, Teresa Kruizenga, Ph.D.
Phone: 507-389-1777
Johnson Afolyan, Ph.D.; Carrie Chapman, Ph.D.; Anne Dahlman, Ph.D.; Kitty Foord, Ed.D.; David Georgina, Ph.D.; Allen Hoffman; Deborah Jessemson, Ph.D.; Teresa Kruizenga, Ph.D.; Guynel Reid, Ph.D.; Amy Scheuermann, Ph.D.

The K-12 and Secondary Programs department prepares undergraduate and graduate students for initial licensure as professional educators in K-12, middle and high school classrooms. Program emphasis is placed upon facilitating students to gain the knowledge, skills, and dispositions needed to function effectively in diverse educational settings.

This section describes ONLY the professional education requirements for completion of teaching degrees at the 5-12 and K-12 levels. Students interested in teaching at the 5-12 and K-12 levels must be admitted to BOTH their major program and professional education.

Formal evaluation of prior academic professional education preparation will be evaluated by the coordinator of Initial Licensure. Formal approval of coursework is based on course descriptions, syllabi, samples of completed work and/or field experience evaluations.

Policies/Information

Admission to Professional Education

Academic Advising Office
117 Armstrong Hall • 507-389-1215

All students working toward a 5-12 or K-12 teaching degree must be admitted to professional education prior to enrollment in Level 1 coursework. Application to professional education should be made when the following requirements have been met:
- a minimum of 32 earned semester credit hours
- a minimum 2.75 cumulative GPA
- evidence of registration for the Minnesota Teacher Licensure Examinations (MTLE) Basic Skills exam.
- enrollment or completion of KSP 220
- “C” grade in ENG 101
- “C” grade in General Education Math

A multifaceted Professional Education application exists. Students are required to attend orientation and application session. Please consult the Office of Academic Advising (117 Armstrong Hall) for deadlines.

Admission is competitive. Achievement at the 2.75 level and completion of all prerequisite courses qualifies students for the applicant pool but does not guarantee admission to the K-12 and Secondary program.

Advising. Students are assigned an advisor in their content area (major). In addition, the KSP department provides advising prior to registration each semester. For more information contact the Office of Field and International Experience. Students in any field experience need to undergo a national criminal background check prior to admittance to professional education. Students are responsible for the fees associated with the background checks. This information is provided to districts for their determination of suitability for placement. The Office of Field and International Experience coordinates the background check process.

Background Checks. All field placements are initiated by the Office of Field and International Experience. Students involved in any field experience need to undergo a national criminal background check prior to admittance to professional education. Students are responsible for the fees associated with the background checks. This information is provided to districts for their determination of suitability for placement. The Office of Field and International Experience coordinates the background check process.

Teacher Licensure. Please contact Gail Orcutt, Licensure Coordinator, in 118 Armstrong Hall for questions in regard to the licensure process. The University recommends licensure to a state upon students’ completion of a licensure program. Licensure does not occur automatically through graduation and the awarding of a diploma. Students need to make application for a Minnesota teaching license at the close of the term in which they graduate. The College of Education, 118 Armstrong Hall, coordinates the licensure process. In addition to program requirements, students must successfully complete the Minnesota Teacher Licensure Examinations (MTLE) including the Basic Skills exam, the pedagogical exam, and the content specific exam(s) for licensure. Minnesota state law requires that all candidates applying for initial licensure in this state be fingerprinted for national background checks. A conduct review statement will also need to be completed and signed. There is a fee for the criminal background check. There is also a fee for the issuance of a State of Minnesota teaching license.

GPA Policy. Coursework in professional education requires a grade of “C” or better. A cumulative career GPA of 2.75 is required.

Admission to Major. Admission to major is granted by the academic department in which the student proposes to major. Earned grade of “C” or better in Goal Area 1 (ENG Comp) and Goal Area 4 (MATH).

P/N Grading Policy. Grades are required in all professional education coursework except courses that are offered on a P/N basis only.

Secondary 5-12 & K-12 Professional Education

Required for General Education
HILTH 240 • Drug Education (3)

Required Professional Education (30 credits)
LEVEL 1
KSP 220W • Human Relations in a Multicultural Society (3)
KSP 222 • Introduction to the Learner and Learning (2)
Floating course (can be taken with Level 1 or 2)
KSP 202 • Technology Integration in the Classroom (2)
Library Media Education courses offer instruction and experience in acquiring, administering, evaluating, producing, organizing and using print, audiovisual, and electronic media. Today’s rapid expansion of information is characterized by a great variety of media through which knowledge is recorded and distributed. Now and in the future, libraries and information centers must deal with transfer of data and information in all formats. Educators must meet the information needs, ranging from recreational to research, of preschool children to adults. Please refer to the graduate catalog for information on the master’s and specialist degree programs in Library Media Education which are designed to prepare professionals for careers in school library media programs.
KSP 250 (3) Social Justice in School and Community  
Analyzing justice as it relates to education and the criminal justice system. Emphasis is on comparing Retributive Systems with the newer Restorative Justice. Active learning methods in the classroom, schools and communities, including service-learning. GE-9

KSP 251 (3) Coming of Age: Gender and Culture  
Students will become aware of diverse experiences of coming of age and will reflect on their own experiences. Diversity of experiences presented will include: race/ethnicity, gender, sexual orientation, religion, socio-economic class, ability/disability and nationality. GE-6, GE-7

KSP 260 (3) Creating Global Awareness through Studying Abroad  
A companion course for students studying abroad. Pre-departure preparation, in country experiential learning and reflection and reentry debriefing will maximize the study abroad experience. Students develop critical thinking, interpersonal communication skills and dispositions for living in a global environment. On-Demand  
GE-7, GE-8  
Diverse Cultures - Gold

KSP 290 (1-2) Workshop  

KSP 301 (2) Instructional Media Utilization  
Instructional media used in the elementary classroom is demonstrated and used by the students. Resource selection and evaluation is stressed. Electronic media, computer-aided instruction, telecommunications, and standard classroom media applications are stressed.

KSP 320 (2) Special Student in the General Classroom  
Provides general education majors with information and strategies including the special needs students in the regular classroom.

KSP 330 (5) Planning, Instruction, and Evaluation in the Classroom  
The course is designed to guide K-12 and 5-12 teacher candidates through the design, implementation, and assessment of a standards-based curriculum. Candidates will analyze standards, create assessments, and design and deliver instruction in a field-site.  
Fall, Spring

KSP 334 (3) Assessing the Post-Secondary Learner  
Course content addresses formal and informal, standardized evaluation of learner achievement in the classroom and programmatic evaluation. Assigned projects will accommodate the student’s present/future professional career track.

KSP 404 (2) Curriculum Applications of Technology in Education  
To prepare pre-service and in-service teachers to use technology in the elementary classroom. Applications to each content area will be considered. Graduate students will have additional course requirements.

KSP 407 (2) Teaching in a Multicultural Society  
Adaptation of curriculum, classroom organization and teaching practices. Graduate students will have additional course requirements.

KSP 408 (3) Teaching to the K-12 ELL Student  
Instructional media used in the elementary classroom is demonstrated and used by the students. Resource selection and evaluation is stressed. Electronic media, computer-aided instruction, telecommunications, and standard classroom media applications are stressed. Graduate students will have additional course requirements.

KSP 415 (2) Materials for Younger Children  
Examination of print and audiovisual media for younger children birth to age seven. Identification selection sources to identify materials. Evaluation of resources, including but not limited to, research collections, discussion groups, and electronic periodicals. Graduate students will have additional course requirements.

KSP 417 (3) Materials for Children  
Print, audiovisual and electronic media: their selection, evaluation, and use with children in grades K-6. Three credit section includes storytelling. Graduate students will have additional course requirements.

KSP 425 (2) Reading and Writing in the Secondary School  
Concepts, objectives, procedures and reading in subject matter field. Graduate students will have additional course requirements.

KSP 440 (3) Creating Learning Environments to Engage Children, Families, and Community  
Teacher candidates will further develop processes for creating and sustaining a classroom learning environment that enables success for all learners, including interacting with diverse families, school colleagues, and representatives from community agencies to support student engagement and learning.  
Fall, Spring  
Coreq: KSP 440, KSP 442

KSP 442 (3) Reading, Literacy, and Differentiated Instruction in Inclusive Classrooms  
Teacher candidates will develop skills in differentiated instruction, reading and content-based literacy in inclusive classrooms. Teacher candidates will integrate prior knowledge of diverse learners, developmental models of learning, and curriculum and instruction into a comprehensive understanding of teaching.  
Fall, Spring  
Coreq: KSP 440, KSP 442

KSP 444 (3) Assessing the Post-Secondary Learner  
Print, audiovisual and electronic media: their selection, evaluation, and use with children in grades K-6. Three credit section includes storytelling. Graduate students will have additional course requirements.

KSP 450 (3) Human Relations in a Multicultural Society  
Graduate students will have additional course requirements.

KSP 451 (1-3) Cultural Diversity Internship  
Opportunity for “hands-on” immersion experience in a culturally diverse setting. This may be faculty-led or self-designed by students with prior approval by the instructor. The experience will include: cultural orientation, site-based experience, debriefing and reflection.  
Pre: KSP 220W or KSP 450

KSP 460 (2-4) Practicum  
Practical experience set up between faculty, student, and on-site supervisor.

KSP 461 (3) Service Learning: Theory and Practice  
A focus on service-learning; planning, implementation, evaluation and celebration of service-learning as program, activity, class and integration into academic study.

KSP 464 (1) Professional Seminar  
Content focus is on professional rights, responsibilities, and development; student rights and responsibilities; and legal issues regarding data privacy and confidentiality. Skills of professional development, inquiry, reflection, coaching, and collaboration will be developed, practiced, and monitored.  
Fall, Spring

KSP 465 (3) Filmmaking  
Students will produce a short digital film incorporating the five phases and ten planning stages of filmmaking. The role independent film plays in a culturally diverse society will be illustrated and discussed. Examples of each genre will be examined.

KSP 475 (1) The Social Context of Learning  
Explores the relationship of the school and community as well as the relationships and roles of the teacher, student, and the school. Knowledge of the social, historical, philosophical foundations of education, school law, finance and governance, ethics, democracy and multiculturalism is explored. Requires twelve hours of out-of-class clinical experience.  
Pre: Recommended for final semester of Professional Education.

KSP 476 (11) K-12 Student Teaching  
Student teaching in the K-12 schools including weekly seminar for K-12 majors.  
Pre: Admission to student teaching.  
Coreq: KSP 475
Social Studies

College of Social & Behavioral Sciences
Social Studies Program
114 Armstrong Hall • 507-389-5718
Website: sbs.mnsu.edu/socialstudies

Coordinator: Clark Johnson

The social studies program is designed to prepare students to teach social studies in secondary schools. This challenging program draws upon faculty from nine areas (anthropology, economics, ethnic studies, gender and women’s studies, geography, history, political science, psychology, and sociology) and works with the College of Education to promote effective teaching practice for future and in-service teachers.

A non-teaching major in social studies is also offered, and provides the student an opportunity to create a program to meet her or his personal academic needs.

Policies/Information

Admission to Major is granted by the program. Minimum university admission requirements are:
- a minimum of 32 earned semester credit hours.
- a minimum cumulative GPA of 2.00 (“C”).

Contact the social studies coordinator for application procedures.

Admission to the Social Studies Program. Students enrolling in SOST 450 must be admitted to the social studies program, a process in addition to admission to the major. Admission to the social studies (teaching) program is limited. Preference for admission to the program is given to students who have a 3.0 GPA and who have had significant global, multicultural, civic, and community service experience. Students are encouraged to work closely with their advisor to prepare for admission to the social studies program.

GPA Policy. A grade of “C” or better is required in all courses in the major.

P/N Grading Policy. No more than 12 credits may be taken P/N.

Social Studies BS Teaching

Degree completion = 120 credits

Anthropology Option

Required General Education

<table>
<thead>
<tr>
<th>Course</th>
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<th>Credits</th>
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<tr>
<td>ANTH 101</td>
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<td>Elements of Geography</td>
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</tr>
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<td>Introduction to Psychological Science</td>
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</tr>
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<td>HIST 190</td>
<td>United States to 1877</td>
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<td>HIST 190W</td>
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</tr>
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Major Common Core

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Major Restricted Electives

Expansion Course (choose 3 credits)

<table>
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<td>3</td>
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<td>GWS 220</td>
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<td>4</td>
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<tr>
<td>GWS 220W</td>
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</table>

Major Emphasis: Anthropology (15 credits) (choose 4 credits)

<table>
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<tbody>
<tr>
<td>ANTH 220</td>
<td>Human Origins</td>
<td>4</td>
</tr>
<tr>
<td>ANTH 230</td>
<td>Peoples and Cultures of the World</td>
<td>4</td>
</tr>
<tr>
<td>ANTH 240</td>
<td>Languages and Cultures</td>
<td>4</td>
</tr>
</tbody>
</table>

(choose 11 credits of 300-400 level anthropology courses)

ANTH 300 - ANTH 400
Other Graduation Requirements

Professional Education, 30 credits
See the SECONDARY EDUCATION section for admission requirements to Professional Education and a list of required professional education. NOTE: Students must also meet a drug and alcohol education requirement (1-3 credits)

KSP 200 - KSP 499
Alcohol & Drug Education (choose 1 credit)
PSYC 490 Workshop (1-3)

**ECONOMICS OPTION**

Required General Education

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**U.S. History to 1877** (choose 4 credits from the following)

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**Major Restricted Electives**

*Expansion Course* (choose 3 credits from the following)

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**Major Emphasis: Economics** (15 credits)

(Select one of the following options)

<table>
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<tbody>
<tr>
<td>ECON 314W</td>
<td>Current Economic Issues (3)</td>
</tr>
<tr>
<td>ECON 403</td>
<td>Labor Economics (3)</td>
</tr>
<tr>
<td>ECON 412</td>
<td>Resources and Environmental Economics (3)</td>
</tr>
<tr>
<td>ECON 416</td>
<td>Sport Economics (3)</td>
</tr>
<tr>
<td>ECON 420</td>
<td>International Economics (3)</td>
</tr>
</tbody>
</table>

**Other Graduation Requirements**

Professional Education, 30 credits
See the SECONDARY EDUCATION section for admission requirements to Professional Education and a list of required professional education courses. NOTE: Students must also meet a drug and alcohol education requirement (1-3 credits)

KSP 200 - KSP 499

**GEOGRAPHY OPTION**

Required General Education

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**Major Emphasis: Geography** (15 credits)

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<tr>
<td>GEOG 340</td>
<td>United States (3)</td>
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<tr>
<td>GEOG 345</td>
<td>Latin America (3)</td>
</tr>
<tr>
<td>GEOG 425</td>
<td>Economic Geography (3)</td>
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<tr>
<td>GEOG 435</td>
<td>Urban Geography (3)</td>
</tr>
<tr>
<td>GEOG 436</td>
<td>Rural Geography (3)</td>
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<td>GEOG 438</td>
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**Other Graduation Requirements**

Professional Education, 30 credits
See the SECONDARY EDUCATION section for admission requirements to Professional Education and a list of required professional education courses. NOTE: Students must also meet a drug and alcohol education requirement (1-3 credits)

KSP 200 - KSP 499

Alcohol & Drug Education (choose 1 credit)
PSYC 490 Workshop (1-3)

**HISTORY OPTION**

Required General Education

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Major Restricted Electives

Expansion Course (choose 3 credits of the following)
ETHN 410 Foundations of Oppression (3)
GWS 220 Global Perspectives on Women and Change (4)
GWS 220W Global Perspectives on Women and Change (4)

Major Emphasis: History (15 credits)
Select (15 credits) of 300-400 level courses, including at least one 400 level course from each of the following areas: Europe, Third World, and the U.S.
HIST 300-499

Other Graduation Requirements
Professional Education, 30 credits
See the SECONDARY EDUCATION section for admission requirements to Professional Education and a list of required professional education courses. NOTE: Students must also meet a drug and alcohol education requirement (1-3 credits)
KSP 200-499
Alcohol & Drug Education (choose 1 credit)
PSYC 490 Workshop (1-3)

POLITICAL SCIENCE OPTION

Required General Education
ANTH 101 Introduction to Anthropology (4)
GEOG 100 Elements of Geography (3)
POL 111 United States Government (3)
PSYC 101 Introduction to Psychological Science (4)

U.S. History to 1877 (choose 4 credits)
HIST 190 United States to 1877 (4)
HIST 190W United States to 1877 (4)
HIST 191 United States Since 1877 (4)
HIST 191W United States Since 1877 (4)

Major Common Core
ECON 201 Principles of Macroeconomics (3)
ECON 202 Principles of Microeconomics (3)
GEOG 340 United States (3)
HIST 302 World History: An Overview (4)
POL 321 Democracy and Citizenship (3)
SOC 101 Introduction to Sociology (3)
SOST 200 Introduction to Social Studies Teaching (2)
SOST 450 Teaching Social Studies Secondary School (4)

Major Restricted Electives
Expansion Course (choose 3 credits)
PSYC 211 Research Methods and Design (4)
(choose 4 credits)
PSYC 407 Advanced Behavior Analysis (4)
PSYC 413 Sensation & Perception (4)
PSYC 421 Behavior Neuroscience (4)
(choose 3 credits)
PSYC 340 Social Psychology (4)
PSYC 433 Child Psychology (4)
PSYC 436 Adolescent Psychology (4)
PSYC 455 Abnormal Psychology (4)
PSYC 456 Personality Theories (3)

Other Graduation Requirements
Professional Education, 30 credits
See the SECONDARY EDUCATION section for admission requirements to Professional Education and a list of required professional education courses. NOTE: Students must also meet a drug and alcohol education requirement (1-3 credits)
KSP 200-499
Alcohol & Drug Education (choose 1 credit)
PSYC 490 Workshop (1-3)

PSYCHOLOGY OPTION

Required General Education
ANTH 101 Introduction to Anthropology (4)
GEOG 100 Elements of Geography (3)
POL 111 United States Government (3)
PSYC 101 Introduction to Psychological Science (4)
U.S. History to 1877 (choose 4 credits)
HIST 190 United States to 1877 (4)
HIST 190W United States to 1877 (4)
U.S. History Since 1877 (choose 4 credits)
HIST 191 United States Since 1877 (4)
HIST 191W United States Since 1877 (4)

Major Common Core
ECON 201 Principles of Macroeconomics (3)
ECON 202 Principles of Microeconomics (3)
GEOG 340 United States (3)
HIST 302 World History: An Overview (4)
POL 321 Democracy and Citizenship (3)
SOC 101 Introduction to Sociology (3)
SOST 200 Introduction to Social Studies Teaching (2)
SOST 450 Teaching Social Studies Secondary School (4)

Major Restricted Electives
Expansion Course (choose 3 credits)
PSYC 211 Research Methods and Design (4)
(choose 4 credits)
PSYC 407 Advanced Behavior Analysis (4)
PSYC 413 Sensation & Perception (4)
PSYC 421 Behavior Neuroscience (4)
(choose 3 credits)
PSYC 340 Social Psychology (4)
PSYC 433 Child Psychology (4)
PSYC 436 Adolescent Psychology (4)
PSYC 455 Abnormal Psychology (4)
PSYC 456 Personality Theories (3)

Other Graduation Requirements
Professional Education, 30 credits
See the SECONDARY EDUCATION section for admission requirements to Professional Education and a list of required professional education courses. NOTE: Students must also meet a drug and alcohol education requirement (1-3 credits)
KSP 200-499
Alcohol & Drug Education (choose 1 credit)
PSYC 490 Workshop (1-3)

SOCIOLOGY OPTION

Required General Education
ANTH 101 Introduction to Anthropology (4)
GEOG 100 Elements of Geography (3)
POL 111 United States Government (3)
PSYC 101 Introduction to Psychological Science (4)
U.S. History to 1877 (choose 4 credits from the following)
HIST 190 United States to 1877 (4)
HIST 190W United States to 1877 (4)
U.S. History Since 1877 (choose 4 credits from the following)
HIST 191 United States Since 1877 (4)
HIST 191W United States Since 1877 (4)

Major Common Core
ECON 201 Principles of Macroeconomics (3)
ECON 202 Principles of Microeconomics (3)
ECON 429 Economic Education (3)
GEOG 340 United States (3)
HIST 302 World History: An Overview (4)
POL 321 Democracy and Citizenship (3)
SOC 101 Introduction to Sociology (3)
SOST 200 Introduction to Social Studies Teaching (2)
SOST 450 Teaching Social Studies Secondary School (4)

Major Restricted Electives

Expansion Course (choose 3 credits of the following)
ETHN 410 Foundations of Oppression (3)
GWS 220 Global Perspectives on Women and Change (4)
GWS 220W Global Perspectives on Women and Change (4)

Major Emphasis: Sociology (15 credits)

Theory
SOC 458 Sociological Theory (3)

Issues
(choose 3 credits from the following)
SOC 255 Juvenile Delinquency (3)
SOC 307 Sex & Gender in Contemporary Society (3)
SOC 425 Social Movements (3)
SOC 441 Social Deviance (3)
SOC 446 Race, Culture & Ethnicity (3)
SOC 463 Social Stratification (3)
SOC 482 Social Change (3)

Methods
(choose 3 credits from the following)
SOC 201 Social Research I (3)
SOC 469 Survey Research (3)
SOC 479 Sociological Ethnography (3)
SOC 480 Qualitative Methods (3)

Family
SOC 408 Family Life Dynamics (3)
SOC 409 Family Violence (3)
SOC 483 The Family and Society (3)

Macro
SOC 351 Social Psychology (3)
SOC 407 Population Dynamics (3)
SOC 423 Complex Organizations (3)
SOC 461 Urban Sociology (3)

Other Graduation Requirements

Professional Education, 30 credits
See the SECONDARY EDUCATION section for admission requirements to Professional Education and a list of required professional education courses. NOTE: Students must also meet a drug and alcohol education requirement (1-3 credits)

KSP 200- KSP 499

Alcohol & Drug Education (choose 1 credit)
PSYC 490 Workshop (1-3)

Major Restricted Electives

A minimum of 27 credits (of which 17 need to be upper division) must be taken on a widely distributed basis from the social sciences and history OUTSIDE the area of concentration and/or from the interdisciplinary programs of: Ethnic Studies, Gender & Women Studies and Urban Studies.

Students are encouraged to take a mixture of courses that reflect a global and multicultural understanding.
ANTH 100 - ANTH 499
ECON 100 - ECON 499
ETHN 100 - ETHN 499
GEOG 100 - GEOG 499
GWS 100 - GWS 499
HIST 100 - HIST 499

SOCIAL STUDIES BS
Degree completion = 120 credits

Major Emphasis: Area of Concentration

A minimum of 24 credits must be taken in ONE of the following areas (15 credits of the 24 credits must be upper division courses). Areas include: Anthropology, Economics, Ethnic Studies, Gender & Women Studies, Geography, History, Political Science, Psychology, Sociology.

(choose 24 credits)

Students taking the history option are required to take at least six credits from each of the following areas: Europe, Third World (i.e. Latin America, Middle East, Asia, and Africa) and United States

ANTH 100 - ANTH 499
ECON 100 - ECON 499
ETHN 100 - ETHN 499
GEOG 100 - GEOG 499
GWS 100 - GWS 499
HIST 100 - HIST 499
POL 100 - POL 499
PSYC 100 - PSYC 499
SOC 100 - SOC 499

Required Minor: None.

COURSE DESCRIPTIONS

SOST 200 (2) Introduction to Social Studies Teaching
Acquaints students majoring in social studies (teaching) with the social studies major and fundamental ideas that will help students integrate what they are learning in social sciences and history within the context of secondary social studies classroom.
Fall, Spring

SOST 222 (1-4) Selected Topics
Designed to provide students the opportunity to explore a variety of topics related to social studies.
Fall, Spring

SOST 299 (1-6) Individual Study

SOST 450 (4) Teaching Social Studies Secondary School
Organization and presentation of social studies in secondary schools. Preparation of units for teaching purposes, examination of materials useful to the social studies teacher. Application of national and state standards to teaching social studies.
Pre: Concurrently with KSP 440
Fall, Spring

SOST 485 (1-6) Topics
Designed to provide students the opportunity to explore a variety of topics related to social studies.

SOST 491 (1-6) In-Service
Designed to provide students the opportunity to integrate academic learning with professional practice.

SOST 499 (1-8) Individual Study
Social Work

College of Social & Behavioral Sciences
Department of Social Work
358 Trahan Science Center N • 507-389-6504
Website: www.sbs.mnsu.edu/socialwork

Chair: Annelies Hagemeister
Ross Aalgaard, David Beimers, Kofi Danso, Annelies Hagemeister, Christine Black-Hughes, Nancy Fitzsimons, Debra Gohagan, Paul Mackie, Laura Strunk, Robin R. Wingo, Kimberly Zammitt


This major is preparation for beginning-level generalist social work practice. The program is accredited for baccalaureate level education by the Council on Social Work Education. This major is also excellent preparation for graduate work in social work and related fields. This accredited major meets one of the requirements for social work licensure, which is required to practice social work in Minnesota.

POLICIES/INFORMATION

Admission to Major. Students should request that they be assigned to a social work advisor as early as possible. Admission to the major is not necessary for enrollment in 100 and 200 level courses. Formal admission to the practice sequence (SOWK 441, SOWK 443, SOWK 447, SOWK 450 and SOWK 455) occurs during the student’s junior year. An application for admission is required. To be eligible for admission at that time, students must have a 2.8 GPA and a minimum grade of “C-” in all required courses.

GPA Policy. Formal admission to the Social Work major requires that applicants have achieved a 2.8 GPA in the required pre-major courses, including those taken in other departments, and a 2.8 cumulative GPA. A minimum grade of “C-” is required in Social Work and supporting courses. Under some circumstances exceptions are made based on evidence of explanatory factors, strong academic performance in recent semesters and good results in courses within the major. Once formally admitted, students are expected to demonstrate continued satisfactory academic performance by earning a minimum grade of “C-” in required courses. No formal additional requirements are applied to acceptance for the Social Work Practicum in the final semester of the program, other than successful completion of course requirements, including Junior Field Experience and practice sequence courses.

P/N Grading Policy. SOWK 450 and SOWK 455 (Social Work Practicum and Practicum Seminar, taken in the Senior Year), are offered only on a P/N basis. All other required major and pre-major courses must be taken for grade and must be passed with a minimum grade of “C-”.

Residency and Transfer Requirements. Transfer students are expected to complete a minimum of 30 credit hours at Minnesota State Mankato. Students who wish to transfer credits in Social Work from another university must have been honorably dismissed from the previous school(s). Students transferring Social Work credits must complete at least 24 credits from within the department.

Credit for classroom courses in Social Work taken at other institutions will be evaluated on an individual basis by the student’s faculty advisor or by the department chairperson. The student will be expected to present course syllabi including assignments and texts used. All transfer students must see a department advisor for guidance and transcript evaluation before attempting to register for upper division courses.

Criminal Background Check. A criminal background check may be required prior to admission and fieldwork/practicum.
SOWK 446 Organizations and Community Practice (4)
SOWK 450 Integrative Seminar (2)
SOWK 455 Social Work Practicum (10)

Major Restricted Electives
(choose one course from the following)
SOWK 415 Child-Family Welfare Services (3)
SOWK 419 Social Work and Aging (3)
SOWK 420 Women’s Issues in Social Work (3)
SOWK 422 Social Work and Chemical Dependency (3)
SOWK 425 Social Work in Health Care Setting (3)
SOWK 427 Social Work and Domestic Violence (3)
SOWK 430 Social Work in the School Setting (3)
SOWK 432 Social Work and Disabilities (3)

Required Minor: None.

SOCIAL WELFARE MINOR

Required for Minor
SOWK 180W Social Welfare Services (4)
SOWK 212 Introduction to Social Work (4)
SOWK 310 Human Behavior in the Social Environment (4)
SOWK 410 Social Welfare Policy (4)

One additional course from the following:
SOWK 255 Global Responses to Human Need (3)
SOWK 415 Child-Family Welfare Services (3)
SOWK 419 Social Work and Aging (3)
SOWK 420 Women’s Issues in Social Work (3)
SOWK 422 Social Work and Chemical Dependency (3)
SOWK 425 Social Work in Health Care Setting (3)
SOWK 427 Social Work and Domestic Violence (3)
SOWK 430 Social Work in the School Setting (3)
SOWK 432 Social Work and Disabilities (3)

*SOWK 315 and SOWK 435 may be considered as part of the Social Welfare Minor with the approval of the Chair.

COURSE DESCRIPTIONS

SOWK 180W (4) Social Welfare Services
The objective of this course is to explore social welfare as a social institution. Consideration will be given to formal and informal efforts to meet common social needs. This course emphasizes social challenges facing American society and the program and policy prescriptions designed to minimize or eliminate these problems.
Fall, Spring, Summer
WI, GE-5, GE-9

SOWK 212 (4) Introduction to Social Work
An introduction to social work as a profession including the history of the profession, professional behaviors, values and Codes of Ethics, fields of practice, roles and tasks, and core theories and social work skills required for generalist social work practice. Students will develop skills in critical thinking, professional communication and behaviors, demonstrate self-awareness as they prepare to work in a diverse society, and apply values, ethics, and theories through group-based projects. Students are provided with information about the BSSW curriculum.
Fall, Spring

SOWK 255 (3) Global Responses to Human Need
This course exposes students to some of the major realities of life among the poor and socially deprived in all parts of the world, primarily developing countries. Students will confront conditions that impede development and keep people locked into poverty and despair, and will discuss how a person who sees her/himself as a global citizen can act in tangible ways to make that “citizenship” more meaningful.
Fall, Spring
GE-5, GE-8
Diverse Cultures - Purple

SOWK 291 (1-3) Exploratory Studies
Under faculty mentorship, students can pursue subjects of individual interest related to social work and social welfare.
Fall, Spring

SOWK 310 (4) Human Behavior in the Social Environment
Applies theoretical frameworks for assessing and organizing knowledge of human behavior and the social environment in conjunction with social systems, to understand individual, family, group, organizational, and community systems. Attention is paid to human diversity, discrimination, and oppression.
Pre: SOWK 180W, SOWK 212
Fall, Spring, Summer

SOWK 315 (4) Junior Field Experience
Beginning level supervised field experience with a social service agency. Students complete 120 hours of observation and agency service and attend a seminar which integrates the field experience and social work values, knowledge and practice skills. Application required during the semester before registration.
Pre: SOWK 180W, SOWK 212
Fall, Spring, Summer

SOWK 410 (4) Social Welfare Policy
Exploration of the interrelatedness of social services, social policy formulation and analysis, and generalist social work practice. Presentation of contemporary social issues and social welfare policies, the introduction of a framework for policy analysis, and an overview of policy, practice, advocacy and action skills. Critical analysis of issues and policy from a social work perspective, drawing from the values and ethics of the profession, with examination of how issues differentially impact groups within our diverse society.
Pre: SOWK 180W, SOWK 212, SOWK 310
Fall, Spring, Summer

SOWK 415 (3) Child-Family Welfare Services
Social services designed to facilitate child development and family functioning.
Fall, Spring

SOWK 419 (3) Social Work and Aging
Service delivery issues and social work practice with older persons, their families and communities.
Fall (On-Demand), Spring (On-Demand), Summer (On-Demand)

SOWK 422 (3) Social Work and Chemical Dependency
This course is designed to provide upper level (junior and senior) undergraduate social work students with a comprehensive introduction to the epidemiology (scientific study of disease), etiology (causes of disease), history, policy, and treatment modalities of substance abuse from a person-in-environment and systems theory social work perspective.
Fall (On-Demand), Spring (On-Demand), Summer (On-Demand)

SOWK 425 (3) Social Work in Health Care Setting
Service delivery issues and skills for working in hospitals, nursing homes, and community programs.
Fall (On-Demand), Spring (On-Demand), Summer (On-Demand)

SOWK 427 (3) Social Work and Domestic Violence
The overall goal of this course is to enable students to understand the rationale for and application of a variety of intervention strategies for the prevention and intervention of domestic violence.
Fall (On-Demand), Spring (On-Demand), Summer (On-Demand)

SOWK 430 (3) Social Work in the School Setting
Service delivery issues, knowledge and skills for providing social services within school settings.
Fall (On-Demand), Spring (On-Demand), Summer (On-Demand)

SOWK 432 (3) Social Work and Disabilities
Course focuses on service delivery issues and skills, using a strengths-based, family systems, and empowerment approach for working with individuals with developmental and other disabilities and their families across the life span. Students hoping to do a practicum in a disability services setting should complete this course prior to beginning the practicum.
Fall (On-Demand), Spring (On-Demand), Summer (On-Demand)
The Sociology undergraduate major includes three options:

**Option I** General Sociology provides a liberal arts curriculum along with research skill development. For students interested in a comprehensive education or preparation for graduate education. **Option II** Applied Sociology prepares students for careers in a variety of applied settings. This applied program includes an internship. **Option III** The Globalization Studies Emphasis provides students with global perspectives and the role of the United States in an increasingly interconnected world.

The Sociology program uses a portfolio model of student professional development. Students planning to major in sociology should take SOC 200: Foundations of Sociology as soon as possible to start their portfolio. Students planning to major in sociology should take SOC 200: Foundations of Sociology as soon as possible to start their portfolio. Our program mission statement, program goals, career information and more are available on our website (http://sbs.mnsu.edu/soccorr).

**POLICIES/INFORMATION**

Admission to Major is granted by the Department. Minimum University admission requirements are:

- a minimum of 32 earned semester credit hours.
- a minimum cumulative GPA of 2.00.

**P/N Grading Policy.** Courses leading to a major or minor in sociology may not be taken on a P/N basis, except where P/N grading is mandatory.

**Residency Requirements.** Excluding SOC 101, all majors must complete 33 of the required 39 credit hours within this Department of Sociology and Corrections at Minnesota State Mankato. Transfer courses that will not be accepted are Internship, Capstone, and experiential learning courses such as GERO 200, SOC 200, and SOC 406.

Normally the department will not accept transfer courses at the 200-level for our majors.
upper level courses, except on a case-by-case basis.

Excluding SOC 101, all students minoring in sociology must complete 12 of the required 18 credit hours within the Department of Sociology and Corrections at Minnesota State Mankato.

GPA Policy. A minimum grade of “C” is required for all courses counting towards the Sociology major.

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<th>SOCIOLOGY BA</th>
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<td>Degree completion = 120 credits</td>
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**Option I: General Sociology**

**Required General Education**
- SOC 101 Introduction to Sociology (3)

**Major Common Core** (choose 21 credits)
- SOC 200 Foundations of Sociology (3)
- SOC 201 Social Research I (3)
- SOC 202 Introductory Social Statistics (3)
- SOC 351 Social Psychology (3)
- SOC 458 Sociological Theory (3)
- SOC 463 Social Stratification (3)
- SOC 495 Senior Seminar (3)

**Major Restricted Electives** (choose one of the following)
- SOC 469 Survey Research (3)
- SOC 479 Sociological Ethnography (3)
- SOC 480 Qualitative Methods (3)

**Major Unrestricted Electives**
Choose 15 credits from 300-400-level courses.
- SOC 307 Sex & Gender in Contemporary Society (3)
- SOC 360 Indigenous People and Environmental Struggles (3)
- SOC 402 Medical Sociology (3)
- SOC 404 Sociology of Aging (3)
- SOC 405 Sociology of Death (3)
- SOC 407 Population Dynamics (3)
- SOC 408 Family Life Dynamics (3)
- SOC 409 Family Violence (3)
- SOC 417 Program Administration (3)
- SOC 420 Identity Work in Women’s Reentry Experiences (3)
- SOC 423 Complex Organizations (3)
- SOC 425 Social Movements (3)
- SOC 430 Sociology of Globalization (3)
- SOC 441 Social Deviance (3)
- SOC 442 Criminology (3)
- SOC 446 Race, Culture & Ethnicity (3)
- SOC 451 Law & Social Justice in Society (3)
- SOC 460 Environmental Sociology (3)
- SOC 461 Urban Sociology (3)
- SOC 465 Law & Chemical Dependency (3)
- SOC 466 Program Planning (3)
- SOC 469 Survey Research (3)
- SOC 470 Sociology of Parent-Child Interaction (3)
- SOC 479 Sociological Ethnography (3)
- SOC 480 Qualitative Methods (3)
- SOC 482 Social Change (3)
- SOC 483 The Family and Society (3)
- SOC 484 Sociology of Religion (3)
- SOC 485 Selected Topics (2-6)
- SOC 490 Workshop (1-3)
- SOC 491 In-Service (1-6)
- SOC 492 Honors Reading (1)
- SOC 493 Applied Sociology (3)
- SOC 497 Internship: Sociology (1-12)
- SOC 499 Individual Study (1-6)

**Other Graduation Requirements**
- Required for Bachelor of Arts (BA) ONLY: Language (8 credits)
- Required Minor. Yes. Any.

**Option II: Applied Sociology**

**Required General Education**
- SOC 101 Introduction to Sociology (3)

**Major Common Core** (choose 27-30 credits)
- SOC 200 Foundations of Sociology (3)
- SOC 201 Social Research I (3)
- SOC 202 Introductory Social Statistics (3)
- SOC 351 Social Psychology (3)
- SOC 458 Sociological Theory (3)
- SOC 463 Social Stratification (3)
- SOC 469 Survey Research (3)
- SOC 479 Sociological Ethnography (3)
- SOC 480 Qualitative Methods (3)

**Major Restricted Electives** (choose one of the following)
- SOC 469 Survey Research (3)
- SOC 479 Sociological Ethnography (3)
- SOC 480 Qualitative Methods (3)

**Major Unrestricted Electives** (choose 6 to 9 credits)
- SOC 307 Sex & Gender in Contemporary Society (3)
- SOC 360 Indigenous People and Environmental Struggles (3)
- SOC 402 Medical Sociology (3)
- SOC 404 Sociology of Aging (3)
- SOC 405 Sociology of Death (3)
- SOC 407 Population Dynamics (3)
- SOC 408 Family Life Dynamics (3)
- SOC 409 Family Violence (3)
- SOC 417 Program Administration (3)
- SOC 420 Identity Work in Women’s Reentry Experiences (3)
- SOC 423 Complex Organizations (3)
- SOC 425 Social Movements (3)
- SOC 430 Sociology of Globalization (3)
- SOC 441 Social Deviance (3)
- SOC 442 Criminology (3)
- SOC 446 Race, Culture & Ethnicity (3)
- SOC 451 Law & Social Justice in Society (3)
- SOC 460 Environmental Sociology (3)
- SOC 461 Urban Sociology (3)
- SOC 465 Law & Chemical Dependency (3)
- SOC 466 Program Planning (3)
- SOC 469 Survey Research (3)
- SOC 470 Sociology of Parent-Child Interaction (3)
- SOC 479 Sociological Ethnography (3)
- SOC 480 Qualitative Methods (3)
- SOC 482 Social Change (3)
- SOC 483 The Family and Society (3)
- SOC 484 Sociology of Religion (3)
- SOC 485 Selected Topics (2-6)
- SOC 490 Workshop (1-3)
- SOC 491 In-Service (1-6)
- SOC 492 Honors Reading (1)
- SOC 499 Individual Study (1-6)

**Other Graduation Requirements**
- Required for Bachelor of Arts (BA) ONLY: Language (8 credits)
- Required Minor. Yes. Any.

<table>
<thead>
<tr>
<th>SOCIOLOGY BS</th>
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<td>Degree completion = 120 credits</td>
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**Option I: General Sociology**

**Required General Sociology**
- SOC 101 Introduction to Sociology (3)
**Sociology Continued**

**Major Common Core**
- SOC 200 Foundations of Sociology (3)
- SOC 201 Social Research I (3)
- SOC 202 Introductory Social Statistics (3)
- SOC 351 Social Psychology (3)
- SOC 458 Sociological Theory (3)
- SOC 463 Social Stratification (3)
- SOC 495 Senior Seminar (3)

**Major Restricted Electives** (choose one of the following)
- SOC 469 Survey Research (3)
- SOC 479 Sociological Ethnography (3)
- SOC 480 Qualitative Methods (3)

**Major Emphasis - Option 1: General Sociology** (choose 15 credits)
Must be upper division and then with the approval of an advisor to total 39 credits in the major.
- SOC 307 Sex & Gender in Contemporary Society (3)
- SOC 360 Indigenous Peoples and Environmental Struggles (3)
- SOC 402 Medical Sociology (3)
- SOC 404 Sociology of Aging (3)
- SOC 405 Sociology of Death (3)
- SOC 408 Family Life Dynamics (3)
- SOC 409 Family Violence (3)
- SOC 417 Program Administration (3)
- SOC 420 Identity Work in Women’s Reentry Experiences (3)
- SOC 423 Complex Organizations (3)
- SOC 425 Social Movements (3)
- SOC 430 Sociology of Globalization (3)
- SOC 441 Social Deviance (3)
- SOC 442 Criminology (3)
- SOC 446 Race, Culture & Ethnicity (3)
- SOC 451 Law & Social Justice in Society (3)
- SOC 460 Environmental Sociology (3)
- SOC 461 Urban Sociology (3)
- SOC 465 Law & Chemical Dependency (3)
- SOC 466 Program Planning (3)
- SOC 469 Survey Research (3)
- SOC 470 Sociology of Parent-Child Interaction (3)
- SOC 479 Sociological Ethnography (3)
- SOC 480 Qualitative Methods (3)
- SOC 482 Social Change (3)
- SOC 483 The Family and Society (3)
- SOC 484 Sociology of Religion (3)
- SOC 485 Selected Topics (2-6)
- SOC 490 Workshop (1-3)
- SOC 491 In-Service (1-6)
- SOC 492 Honors Reading (1)
- SOC 499 Individual Study (1-6)

**Required Minor. Yes. Any.**

**Sociology: Globalization Studies BA**

**Required General Education**
- SOC 101 Introduction to Sociology (3)

**Major Common Core**
- SOC 200 Foundations of Sociology (3)
- SOC 201 Social Research I (3)
- SOC 202 Introductory Social Statistics (3)
- SOC 351 Social Psychology (3)
- SOC 458 Sociological Theory (3)
- SOC 463 Social Stratification (3)
- SOC 495 Senior Seminar (3)

**Major Restricted Electives** (choose one of the following)
- SOC 469 Survey Research (3)
- SOC 479 Sociological Ethnography (3)
- SOC 480 Qualitative Methods (3)

**Major Emphasis - Option 2: Applied Sociology**
Must be upper division and then with the approval of an advisor to total 39 credits in the major.
- SOC 307 Sex & Gender in Contemporary Society (3)
- SOC 360 Indigenous Peoples and Environmental Struggles (3)
- SOC 402 Medical Sociology (3)
- SOC 404 Sociology of Aging (3)
- SOC 405 Sociology of Death (3)
- SOC 408 Family Life Dynamics (3)
- SOC 409 Family Violence (3)
- SOC 417 Program Administration (3)
- SOC 420 Identity Work in Women’s Reentry Experiences (3)
- SOC 423 Complex Organizations (3)
- SOC 425 Social Movements (3)
- SOC 430 Sociology of Globalization (3)
- SOC 441 Social Deviance (3)
- SOC 442 Criminology (3)
- SOC 446 Race, Culture & Ethnicity (3)
- SOC 451 Law & Social Justice in Society (3)
- SOC 460 Environmental Sociology (3)
- SOC 461 Urban Sociology (3)
- SOC 465 Law & Chemical Dependency (3)
- SOC 466 Program Planning (3)
- SOC 469 Survey Research (3)
- SOC 470 Sociology of Parent-Child Interaction (3)
- SOC 479 Sociological Ethnography (3)
- SOC 480 Qualitative Methods (3)
- SOC 482 Social Change (3)
- SOC 483 The Family and Society (3)
- SOC 484 Sociology of Religion (3)
- SOC 485 Selected Topics (2-6)
- SOC 490 Workshop (1-3)
- SOC 491 In-Service (1-6)
- SOC 492 Honors Reading (1)
- SOC 499 Individual Study (1-6)

**Option 2: Applied Sociology**

**Required General Education**
- SOC 101 Introduction to Sociology (3)

**Major Common Core**
- SOC 200 Foundations of Sociology (3)
- SOC 201 Social Research I (3)
- SOC 202 Introductory Social Statistics (3)
- SOC 351 Social Psychology (3)
- SOC 458 Sociological Theory (3)
- SOC 463 Social Stratification (3)
- SOC 495 Senior Seminar (3)

**Major Restricted Electives** (choose one of the following)
- SOC 469 Survey Research (3)
- SOC 479 Sociological Ethnography (3)
- SOC 480 Qualitative Methods (3)

**Major Emphasis - Option 2: Applied Sociology**
- SOC 493 Applied Sociology (3)
- SOC 497 Internship: Sociology (1-12)

**Major Electives** (choose 6-9 credits)
- SOC 307 Sex & Gender in Contemporary Society (3)
- SOC 360 Indigenous Peoples and Environmental Struggles (3)
- SOC 402 Medical Sociology (3)
- SOC 404 Sociology of Aging (3)
- SOC 405 Sociology of Death (3)
- SOC 408 Family Life Dynamics (3)
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- SOC 485 Selected Topics (2-6)
- SOC 490 Workshop (1-3)
- SOC 491 In-Service (1-6)
- SOC 492 Honors Reading (1)
- SOC 499 Individual Study (1-6)

**Required Minor. Yes. Any.**

**Sociology: Globalization Studies BA**

**Required General Education**
- SOC 101 Introduction to Sociology (3)

**Major Common Core**
- SOC 200 Foundations of Sociology (3)
- SOC 201 Social Research I (3)
- SOC 202 Introductory Social Statistics (3)
- SOC 351 Social Psychology (3)
- SOC 458 Sociological Theory (3)
- SOC 463 Social Stratification (3)
- SOC 495 Senior Seminar (3)

**Add ONE of the following (choose 3 credits)**
- SOC 469 Survey Research (3)
- SOC 479 Sociological Ethnography (3)
- SOC 480 Qualitative Methods (3)

**Departmental Courses** (choose 12-15 credits)
- SOC 307 Sex & Gender in Contemporary Society (3)
- SOC 407 Population Dynamics (3)
- SOC 425 Social Movements (3)
- SOC 430 Sociology of Globalization (3)

**Major Electives**
Please select a total of 18 credits of major restricted electives. Departmental Courses (choose 12-15 credits)
- SOC 307 Sex & Gender in Contemporary Society (3)
- SOC 407 Population Dynamics (3)
- SOC 425 Social Movements (3)
- SOC 430 Sociology of Globalization (3)
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>SOC 446</td>
<td>Race, Culture &amp; Ethnicity</td>
<td>(3)</td>
</tr>
<tr>
<td>SOC 460</td>
<td>Environmental Sociology</td>
<td>(3)</td>
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<tr>
<td>SOC 461</td>
<td>Urban Sociology</td>
<td>(3)</td>
</tr>
<tr>
<td>SOC 482</td>
<td>Social Change</td>
<td>(3)</td>
</tr>
</tbody>
</table>

**Other College of Social and Behavioral Sciences Electives**

- (choose 3-6 credits)
  - ANTH 436W Anthropology of Aging (3)
  - ETHN 330 Immigration and Ethnicity (3)
  - GEOG 425 Economic Geography (3)
  - GWs 220 Global Perspectives on Women and Change (4)
  - POL 231 World Politics (3)
  - POL 241 Introduction to Comparative Politics (3)
  - POL 431 International Relations (3)
  - POL 435 Capitalism, Nationalism, and Democracy (3)
  - POL 436 International Political Economy (3)
  - POL 448 Political Development & Change (3)
  - SOWK 255 Global Responses to Human Need (3)
  - URBS 150 Sustainable Communities (3)

**Other Graduation Requirements**

- Required for Bachelor of Art (BA) ONLY: Language (8 credits)

**SOCIOLOGY MINOR**

**Required for Minor**

- SOC 101 Introduction to Sociology (3)

**Required Electives**

- (18 credits)
  - At least 12 credits must be at the 300-400 level.
  - SOC Any Level
  - SOC Any Level
  - SOC 300-400 Level
  - SOC 300-400 Level
  - SOC 300-400 Level

**COURSE DESCRIPTIONS**

**SOC 101 (3) Introduction to Sociology**

Overview of the nature and characteristics of human societies; the structure and processes of social life; impact of social forces on individuals and groups; interdependence of society and the individual; emphasis on cultural diversity and globalism.

Fall, Spring

GE-5, GE-8

Diverse Cultures - Purple

**SOC 101W (3) Introduction to Sociology**

Overview of the nature and characteristics of human societies; the structure and processes of social life; impact of social forces on individuals and groups; interdependence of society and the individual; emphasis on cultural diversity and globalism. This is a writing intensive course.

Variable WI, GE-5, GE-8

Diverse Cultures - Purple

**SOC 101W (3) Introduction to Sociology**

Overview of the nature and characteristics of human societies; the structure and processes of social life; impact of social forces on individuals and groups; interdependence of society and the individual; emphasis on cultural diversity and globalism.

Variable WI, GE-5, GE-8

Diverse Cultures - Purple

**SOC 200 (3) Foundations of Sociology**

Elements of the sociological perspective; overview of theoretical and methodological orientations; sociological practice and application; initial development of student portfolio.

Pre: SOC 101 or SOC 101W

Fall, Spring

**SOC 201 (3) Social Research I**

Fundamentals of research methods focusing on the research process and research design including hypothesis testing, basic analysis and interpretation; students will develop and practice research skills.

Pre: SOC 101 or SOC 101W

Fall, Spring

**SOC 202 (3) Introductory Social Statistics**

Basic descriptive and inferential statistics used in the analysis of sociological data.

Fall, Spring

GE-4

**SOC 208 (3) Courtship, Marriage & Family**

Courtship, marriage and family are studied as social and cultural phenomena. Focuses on the relationships between society, culture, social institutions, families and individuals especially as they are affected by social change.

GE-5, GE-7

Diverse Cultures - Purple
SOC 209 (3) Sociology of Human Sexualities
Explores the social construction of sex and sexuality, including the organization of human bodies and activities into particular categories such as female and male or homosexual and heterosexual. How this is done in specific institutional settings like the law, media, and science is a primary focus. The effects of such practices and their associated meanings, as well as resistance to them, are also investigated.
Fall, Spring
GE-5, GE-7
Diverse Cultures - Purple

SOC 255 (3) Juvenile Delinquency
A critical consideration of definitions of juvenile delinquency, emphasis on micro and macro level of struggle in which delinquent behavior takes place, critique of current theories on delinquency, and the juvenile justice response to delinquency.
Pre: SOC 101 or SOC 101W
Fall, Spring

SOC 291 (1-3) Exploratory Studies
May be used to explore areas of interest to students which are not covered in regular courses. A maximum of three hours applicable toward a major or minor in the department with consent of an advisor.
Pre: Consent
Fall, Spring

SOC 307 (3) Sex & Gender in Contemporary Society
Description and analysis of sex/gender systems, interpersonal power, language and communication, the role of gender in social institutions such as the family, work, and politics, and the role of social movements in creating change in gender relations.
Pre: SOC 101 or SOC 101W
Fall, Spring

SOC 325 (3) Sociology of Popular Culture
This course examines the sociological significance of popular culture and focuses on how popularized aspects of social life are produced, consumed and experienced by members of society. Includes discussion of celebrities, sports, music, television, movies, commercials and consumption practices.
Pre: SOC 101 or SOC 101W
Variable

SOC 351 (3) Social Psychology
The study of symbolic interaction as the basis of the mind, the self, and society.
Pre: SOC 101 or SOC 101W
Fall, Spring

SOC 360 (3) Indigenous Peoples and Environmental Struggles
Introduces students to the differences between indigenous and Western views of the environment. Analyzes the impact of invasion and encroachment on indigenous societies' interactions with nature. Compares historical and contemporary environmental issues in indigenous societies.
Variable
GE-10
Diverse Cultures - Purple

SOC 398 (0) CPT: Co-Operative Experience
Curricular Practical Training: Co-Operative Experience is a zero-credit full-time practical training experience for one summer and on adjacent fall or spring term. Special rules apply to preserve full-time student status. Please contact an advisor in your program for complete information.
Pre: At least 60 credits earned; in good standing; instructor permission; co-op contract; other prerequisites may also apply.
Fall, Spring, Summer

SOC 402 (3) Medical Sociology
Introduces students to central topics in medical sociology including: social factors responsible for people’s health outcomes; social construction of health and illness; health inequalities; evolution of the social institution of medicine; and/or issues related to race/ethnicity, social class and gender.
Fall

SOC 403 (3) Sociology of Mental Health
This course brings a sociological perspective to the understanding of mental health and illness. Students review the history and the perception of mental illness in Western society, and critically examine how social factors influence the definition and the responses to mental disorders.
Fall, Spring

SOC 404 (3) Sociology of Aging
Social and social-psychological focus in later life. Problems and prospects of growing old in the United States.
Pre: SOC 101 or SOC 101W
Fall
Diverse Cultures - Purple

SOC 405 (3) Sociology of Death
Study of the structure of human response to death, dying, and bereavement in their socio-cultural, interpersonal, and personal context. Formation of children’s perception of death, functions of the funeral, euthanasia, and suicide are among the topics to be discussed.
Pre: SOC 101 or SOC 101W
Fall

SOC 407 (3) Population Dynamics
The course will acquaint students with dynamic forces operating in the field of population and development. Includes an introduction to basic theories and techniques of population analysis, with coverage of global economic forces: fertility, mortality, and migration. The causes and consequences of over-population are discussed with special attention to resource depletion and food shortages.
Pre: SOC 101 or SOC 101W
Variable

SOC 409 (3) Family Violence
Various forms of family violence including dating violence, spouse abuse, and child abuse; social theory, empirical research and social policy on family violence; social context, responses and solutions.
Fall

SOC 417 (3) Program Administration
Implications of sociological knowledge for the administration of Human Services programs. Theoretical and practical aspects of administration within social service systems.
Spring

SOC 420 (3) Identity Work in Women’s Reentry Experiences
Applies sociological theories of identity to the experience of women being released from prison. Taught at the women’s prison in Shakopee, Minnesota and integrates Minnesota State Mankato students with students drawn from the educational program located within the women’s prison in Shakopee.
Fall, Spring
Diverse Cultures - Gold

SOC 423 (3) Complex Organizations
Analysis of the development, structure, and functioning of social processes in large-scale, formal organizations.
Pre: SOC 101, SOC 101W
Fall

SOC 425 (3) Social Movements
Survey of major sociological perspectives on social movements, including theoretical approaches and empirical research on the causes, processes, and outcomes of social movements.
Pre: SOC 101 or SOC 101W
Spring

SOC 430 (3) Sociology of Globalization
Overview of the role of the United States in an increasingly globalized society with a focus on economic and political inequality, the class structure, the labor process, race and gender relations, the global dimensions of capitalism, and modern crisis tendencies.
Pre: SOC 101 or SOC 101W
Variable
Diverse Cultures - Purple
SOC 441 (3) Social Deviance
Sociological perspectives on social deviance; overview of theoretical approaches; emphasis on symbolic interactionism; issues of social control; research examples and policy implications.
Pre: SOC 101 or SOC 101W
Fall, Spring

SOC 442 (3) Criminology
A critical consideration of myths concerning crime, perspectives on crime and their assumptions, current criminology theory, and construction of alternative explanations related to crime.
Pre: SOC 101 or SOC 101W
Fall, Spring

SOC 446 (3) Race, Culture & Ethnicity
Study of minority racial and cultural groups in U.S. society. An examination of how the lives of the members of these groups are affected by racism, prejudice, and discrimination.
Pre: SOC 101 or SOC 101W
Fall, Spring
Diverse Cultures - Purple

SOC 451 (3) Law & Social Justice in Society
A critical look at the construction of the concepts of law and justice as it operates in the United States and an application of the principles of justice to community issues.
Pre: SOC 101, SOC 101W and CORR 106
Variable

SOC 458 (3) Sociological Theory
An overview of sociological theory that surveys the classical tradition and emphasizes contemporary theories including functionalism, conflict theory, rational choice theory, and symbolic interactionism as well as recent trends in theoretical developments.
Pre: SOC 101 or SOC 101W
Spring

SOC 460 (3) Environmental Sociology
Examines the sociological relationship between people and the environment including: ways various societies view the environment, social changes from ecological degradation, and solutions to environmental problems. Topics may include a sociological analysis of climate change, agriculture, and resource extraction.
Spring
Diverse Cultures - Purple

SOC 461 (3) Urban Sociology
A survey of sociological theory and research on the ecology, demography, and social organization of the urban community. Presents a sociological interpretation of the development of urban society and how the process of urbanization affects the basic societal institutions and individual behavior.
Pre: SOC 101 or SOC 101W
Variable
Diverse Cultures - Purple

SOC 463 (3) Social Stratification
An overview of the causes, processes and consequences of social stratification in society. Includes an overview of classical statements about stratification and focuses on social inequalities rooted in social class structures, the organization of political power, and social hierarchies based on race and gender differences in society.
Pre: SOC 101 or SOC 101W
Spring
Diverse Cultures - Purple

SOC 465 (3) Law & Chemical Dependency
Addresses aspects of criminal and civil law pertinent to substance abuse.
Fall

SOC 466 (3) Program Planning
Theoretical and practical aspects of the planning process within social service systems. Examines the social context of planning and the use of a sociological knowledge base for planning in Human Services.
Pre: SOC 101 or SOC 101W
Spring

SOC 469 (3) Survey Research
Techniques of survey research, interview, and questionnaire construction, field administration, and sampling methodology.
Pre: SOC 201
Fall

SOC 470 (3) Sociology of Parent-Child Interaction
Parent-child relationships in societal context; socialization theories; classic and contemporary research; parenting applications; current issues.
Spring

SOC 479 (3) Sociological Ethnography
Examination of ethnographic methodologies in sociology with emphasis on analytic, performance, and autoethnography. Exploration of ethics in ethnography, visual sociology, and first-hand experience in both crafting and presenting ethnographic works.
Pre: SOC 101 or SOC 101W; SOC 201 or similar science research course with instructor permission.
Spring

SOC 480 (3) Qualitative Methods
Participant observation, focused interviews, and qualitative analysis; students actively participate in a field research project.
Pre: SOC 101 or SOC 101W; SOC 201 or similar social science research course with instructor permission.
Fall

SOC 482 (3) Social Change
Analysis of social forces and processes involved in changing norms, values, and structures in traditional and modern societies. Examines both planned and unplanned change.
Pre: SOC 101 or SOC 101W
Variable

SOC 483 (3) The Family and Society
Theory development and research findings about family systems with a special emphasis on societal influences (social, economic, political) on the changing family.
Variable

SOC 484 (3) Sociology of Religion
Analysis of the structures, functions, and origins of religion, its relationship to other social institutions, and its role in modern secular society. Examines processes of individual religiosity and explores current religious movements and trends.
Pre: SOC 101 or SOC 101W
Variable

SOC 485 (2-6) Selected Topics
Topics vary as announced in class schedule. May be retaken for credit if topic varies.
Pre: SOC 101 or SOC 101W
Variable

SOC 490 (1-3) Workshop
Workshop topics vary as announced in class schedule. May be retaken for credit.
Variable

SOC 491 (1-6) In-Service
Topics vary as arranged by students and instructor. May be retaken for credit.
Variable

SOC 492 (1) Honors Reading
For Honors students only.
Variable
Sociology continued

SOC 493 (3) Applied Sociology
Focuses on ways sociological theories, perspectives, and methods can be applied to address human concerns; how sociologists make a better world. Participants learn to use sociological methods and concepts (such as theories about social structure, social organization, and social movements) to identify, investigate, and implement solutions to problems of social organization, social process, and social change. Potential applications include issues encountered in various workplace and social situations including community agencies and organizations, government, business, health care, and other social institutions.

Pre: SOC 201. Senior Standing; SOC 201 or equivalent with permission

SOC 495 (3) Senior Seminar
Reviews sociological competencies and their applications in a variety of professional settings. A faculty-supervised, student-designed capstone project will integrate sociological knowledge, theory and research. Students must have completed or be currently enrolled in all other required courses for the major.

Pre: SOC 200, SOC 201, SOC 458

Fall, Spring

Spanish

College of Arts & Humanities
Department of World Languages & Cultures
227 Armstrong Hall • 507-389-2116
Website: www.mnsu.edu/languages

Chair: Gregory Taylor
Kimberly Contag, Alfredo Duplat, James A. Grabowska, Adriana Gordillo, Elizabeth Harsma, Gregory Taylor, Enrique Torner

Students in the Spanish program acquire language proficiency and cultural competency that prepares them to work and travel where Spanish is spoken. Students at the end of their program will meet the National Standards for Foreign Language Learning.

Communicate in Languages Other Than English

Standard 1.1: Students engage in conversations, provide and obtain information, express feelings and emotions, and exchange opinions.

Standard 1.2: Students understand and interpret written and spoken language on a variety of topics.

Standard 1.3: Students present information, concepts, and ideas to an audience of listeners or readers on a variety of topics.

Gain Knowledge and Understanding of Other Cultures

Standard 2.1: Students demonstrate an understanding of the relationship between the practices and perspectives of the culture studied.

Standard 2.2: Students demonstrate an understanding of the relationship between the products and perspectives of the culture studied.

Connect with Other Disciplines and Acquire Information

Standard 3.1: Students reinforce and further their knowledge of other disciplines through the foreign language.

Standard 3.2: Students acquire information and recognize the distinctive viewpoints that are only available through the foreign language and its cultures.

Develop Insight into the Nature of Language and Culture

Standard 4.1: Students demonstrate understanding of the nature of language through comparisons of the language studied and their own.

Standard 4.2: Students demonstrate understanding of the concept of culture through comparisons of the cultures studied and their own.

Participate in Multilingual Communities at Home & Around the World

Standard 5.1: Students use the language both within and beyond the school setting.

Standard 5.2: Students show evidence of becoming life-long learners by using the language for personal enjoyment and enrichment.

Policies/Information

Admission to Major is granted by the department. Minimum University admission requirements are:

- A minimum of 32 earned semester credit hours.
- A minimum cumulative GPA of 2.00 (“C”).

Contact the department for application and placement procedures.

GPA Policy. A grade of “C-” or better must be earned for major or minor credit.

P/N Grading Policy. Work done for a major or minor must be done for a letter grade above the second-year level. A grade of “P” must be earned for major or minor credit in all work done on a P/N basis.

Proficiency Policies. Students who wish to receive credit by examination may take tests to have their proficiency evaluated. Students may not take a proficiency test for a course in which they are enrolled. Students who have any previous Spanish experience must see a Spanish faculty member for placement advice before enrolling in a Spanish course. Contact the Department for details and see the department website for guidance.

Fulfilling BA Language Requirement. Students who wish to validate the BA Language requirement for previous study in French, German, Spanish, Swedish or Norwegian may do so by taking credit by exam. Students do not meet the BA Language requirement merely because they have taken two years of high school language.

Residency Requirement. Transfer credits will be applied only if they are the equivalent of work offered by the Department of World Languages & Cultures for the major or minor in that language. In addition, a minimum of work must be taken at Minnesota State Mankato as follows. Major: A minimum of three upper division courses other than SPAN 492 or SPAN 499, for a total of at least 8 credits. At least two of these courses must be at the 400 level. Minor: A minimum of two upper division courses other than SPAN 492 or SPAN 499, for a total of at least six credits.

Courses not required for a student’s specific baccalaureate degree should be chosen according to these general guidelines:

- BA: Emphasis on literature in upper-division courses; students will most likely pursue their education beyond the baccalaureate level.
- BS: Emphasis on the ability to communicate in the language; presupposes knowledge of culture and civilization; students frequently have career goals in other disciplines for which a language is either required or recommended.
- BS Spanish Education:
Emphasis is on meeting the National Standards for Foreign Language Learning and Minnesota Board of Teaching competencies.

### - BS Spanish for the Professions:
Emphasis is on the development of communicative competency, cultural competency and literacy to work in the 21st century workplace where Spanish is required.

### SPANISH BA
Degree completion = 120 credits

<table>
<thead>
<tr>
<th>Pre-requisites to the Major</th>
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<tbody>
<tr>
<td>SPAN 101 Elementary Spanish I (4)</td>
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<tr>
<td>SPAN 102 Elementary Spanish II (4)</td>
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<tr>
<td>SPAN 193 Individual Study Abroad: Elementary Spanish I (1-6)</td>
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<tr>
<td>SPAN 194 Individual Study Abroad: Elementary Spanish II (1-6)</td>
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### Major Common Core
SPAN 210W Composition & Conversation (4)

### Major Restricted Electives
Language/Linguistics (choose 3-6 credits)
- SPAN 301 Topics in Language (1-4)
- SPAN 394 Supervised Study Abroad: Advanced Spanish II (1-6)
- SPAN 401 Topics in Linguistics (1-4)
- Conversation (choose 3-6 credits)
- SPAN 310 Conversation and Composition (1-4)
- SPAN 393 Individual Study Abroad: Advanced Spanish I (1-6)
- Reading (choose 3-6 credits)
- SPAN 365 Selected Readings (1-4)
- SPAN 395 Individual Study Abroad: Readings in Hispanic Lit. (1-6)
- Spanish Peninsular Civilization (choose 3-6 credits)
- SPAN 355 Spanish Civilization (1-4)
- SPAN 497 Ind. Study Abroad: Topics in Spanish Peninsular Culture (1-6)
- Spanish American Civilization (choose 3-6 credits)
- SPAN 356 Latin American Civilization (1-4)
- SPAN 496 Ind. Study Abroad: Topics in Spanish American Culture (1-6)
- Spanish Peninsular Literature (choose 3-6 credits)
- SPAN 402 Topics in Spanish Peninsular Literature (1-4)
- SPAN 495 Ind. Study Abroad: Topics in Spanish Peninsular Lit. (1-6)
- Spanish American Literature (choose 3-6 credits)
- SPAN 403 Topics in Spanish American Literature (1-4)
- SPAN 494 Ind. Study Abroad: Topics in Spanish American Lit. (1-6)

### Major Unrestricted Electives (choose 1-11 credits)
SPAN 201 through SPAN 499

### Other Graduation Requirement
Selected Major at the 200/300 level; the sum of credits in courses chosen at the 200/300 level must be at least 18 credits.

### Required Minor: Yes. Any.

### SPANISH CONTINUED

| Degree completion = 120 credits |

<table>
<thead>
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<td>Language (8 credits) or other proof of proficiency</td>
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<td>SPAN 101 Elementary Spanish I (4)</td>
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<td>SPAN 102 Elementary Spanish II (4)</td>
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<td>SPAN 194 Individual Study Abroad: Elementary Spanish II (1-6)</td>
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### Major Common Core
SPAN 210W Composition & Conversation (4)

### Major Restricted Electives
Language/Linguistics (choose 3-6 credits)
- SPAN 301 Topics in Language (1-4)
- SPAN 394 Supervised Study Abroad: Advanced Spanish II (1-6)
- SPAN 401 Topics in Linguistics (1-4)
- Conversation (choose 3-6 credits)
- SPAN 310 Conversation and Composition (1-4)
- SPAN 393 Individual Study Abroad: Advanced Spanish I (1-6)

### Reading (choose 3-6 credits)
- SPAN 365 Selected Readings (1-4)
- SPAN 395 Individual Study Abroad: Readings in Hispanic Lit. (1-6)
- Spanish Peninsular Civilization (choose 3-6 credits)
- SPAN 355 Spanish Civilization (1-4)
- SPAN 497 Ind. Study Abroad: Topics in Spanish Peninsular Culture (1-6)
- Spanish American Civilization (choose 3-6 credits)
- SPAN 356 Latin American Civilization (1-4)
- SPAN 496 Ind. Study Abroad: Topics in Spanish American Culture (1-6)
- Spanish Peninsular Literature (choose 3-6 credits)
- SPAN 402 Topics in Spanish Peninsular Literature (1-4)
- SPAN 495 Ind. Study Abroad: Topics in Spanish Peninsular Lit. (1-6)
- Spanish American Literature (choose 3-6 credits)
- SPAN 403 Topics in Spanish American Literature (1-4)
- SPAN 494 Ind. Study Abroad: Topics in Spanish American Lit. (1-6)

### Required Minor: Yes. Any.

Spanish for the Professions is a degree that prepares students to work in a variety of careers where a high level of Spanish language and cultural competency associated with the Spanish-speakers of the 21st century are required. The required coursework emphasizes the development of communicative competency, cultural competency and literacy (reading skills, translation of documents for the professions, etc.) to work in the 21st century workplace where Spanish is required. Required general education courses in a variety of areas (geography, ethnic studies, anthropology, philosophy, environmental studies, for example) and advanced courses in culture, civilization and history enhance the student’s understanding of the people, cultures, and environments where Spanish is used in the workplace (here in the US and in Spain, Mexico, the Caribbean and Central America and South America). Core competencies include demonstration of skills in written and oral communication and competencies in literacy and cultures. This program requires study abroad immersion in a Spanish-speaking country.

### Required General Education
- ANTH 240 Language and Culture (4)
- CMST 203 Intercultural Communication (3)
- CMST 212 Professional Communication and Interviewing (3)
- ENVR 101 Perspectives in Environmental Science (4)
- ETHN 150 Multi-Cultural/Ethnic Experience (3)
- ETHN 204W Perspectives on Latinos/Hispanics (3)
- GEOG 103 Introductory Cultural Geography (3)
- Select two (choose 6-8 credits)
- BLAW 131 Consumer Law & Ethics (3)
- PHIL 224W Business Ethics (3)
- PHIL 240W Law, Justice & Society (3)
- PHIL 321W Social & Political Philosophy (3)

### Pre-requisites to the Major
Spanish language equivalency (choose 4-5 credits)
Students must have the equivalent proficiency level of 102 to enter the major. One language course 101-202 may be used in General Education. Students whose proficiency level exceeds the minimum required should complete an elective course in Spanish or course at the appropriate level in another language of their choice.

### Major Common Core
SPAN 355 Spanish Civilization (1-4)
- SPAN 193 Individual Study Abroad: Elementary Spanish I (1-6)
- SPAN 194 Individual Study Abroad: Elementary Spanish II (1-6)
- SPAN 201 Intermediate Spanish I (4)
- SPAN 202 Intermediate Spanish II (4)
- SPAN 293 Individual Study Abroad: Intermediate Spanish I (1-6)
- SPAN 294 Individual Study Abroad: Intermediate Spanish II (1-6)

### Major Unrestricted Electives (choose 1-11 credits)
SPAN 201 through SPAN 499

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SPANISH CONTINUED

Major Restricted Electives

**Integrative Skills** (choose 14 credits)

- SPAN 393 Individual Study Abroad: Advanced Spanish I (1-6)
- SPAN 394 Supervised Study Abroad: Advanced Spanish II (1-6)
- SPAN 396 Experiencing Diverse Cultures (1-3)
- SPAN 407 Topics in Translation (1-4)
- SPAN 498 Internship: Spanish for the Professions (1-4)

**Cultural Competency** (choose 7-8 credits)

- SPAN 497 Ind. Study Abroad: Topics in Spanish American Culture (1-6)
- SPAN 499 Ind. Study Abroad: Topics in Spanish Peninsular Culture (1-6)

**Literacy Competency** (choose 8 credits)

- SPAN 402 Topics in Spanish Peninsular Literature (1-4)
- SPAN 403 Topics in Spanish American Literature (1-4)

**Major Unrestricted Electives**

**Spanish Electives** (choose 8-11 credits)

Choose electives in consultation with an advisor.

- SPAN 256 Individual Study Abroad: Supervised Project (1-6)
- SPAN 301 Topics in Language (1-4)
- SPAN 310 Conversation and Composition (1-4)
- SPAN 365 Selected Readings (1-4)
- SPAN 395 Individual Study Abroad: Readings in Hispanic Literature (1-6)
- SPAN 401 Topics in Linguistics (1-4)
- SPAN 402 Topics in Spanish Peninsular Literature (1-4)
- SPAN 464 Internship: FLES (1-6)
- SPAN 492 Independent Study (1-3)
- SPAN 493 Ind. Study Abroad: Topics in Language and Linguistics (1-6)
- SPAN 494 Ind. Study Abroad: Topics in Spanish American Literature (1-6) (choose 0-3 credits)

Number of elective credits will depend upon total number of credits completed in the core and restricted and unrestricted electives.

SPAN 201 through SPAN 499 are required.

**Required Minor: Yes. Any.**

Recommended minors for Spanish for the Professions vary in credit length. The following minors fit within the 120 credit limit as they are 20 credits or less and pair well with this major: Corrections, Environmental Studies, Financial Planning, Human Resource Management, Marketing, Political Science, Social Welfare and Technical Communication. Other minors that exceed 20 credits that would also be an appropriate pair for this major are: Business Administration, Community Health, French, German, International Relations, Nonprofit Leadership, Psychology, Scandinavian Studies, Social Welfare, Sports Medicine.

**SPANISH BS, TEACHING**

Degree completion = 120 credits

**Pre-requisites to the Major**

- SPAN 201 Intermediate Spanish I (4)
- SPAN 202 Intermediate Spanish II (4)
- SPAN 293 Individual Study Abroad: Intermediate Spanish I (1-6)
- SPAN 294 Individual Study Abroad: Intermediate Spanish II (1-6)

**Major Common Core**

- WLC 460 Methods of Teaching Modern Languages (3)
- WLC 461 Applied Modern Language Teaching Methods (1)
- WLC 462 Foreign Language in the Elem. School (FLES) Methods (3)
- WLC 463 Applied FLES Method (1)
- SPAN 210W Composition and Conversation (4)

**Major Restricted Electives**

- SPAN 310 Conversation and Composition (1-4)
- SPAN 393 Individual Study Abroad: Spanish I (1-6)
- Language/Linguistics (choose 3-6 credits)

- SPAN 301 Topics in Language (1-4)
- SPAN 394 Individual Study Abroad: Advanced Spanish I (1-6)
- SPAN 401 Topics in Linguistics (1-4)
- SPAN 365 Selected Readings (1-4)
- SPAN 395 Individual Study Abroad: Readings in Hispanic Lit. (1-6)
- Spanish Peninsular Civilization (choose 3-6 credits)
- SPAN 355 Spanish Civilization (1-4)
- SPAN 497 Ind. Study Abroad: Topics in Spanish Peninsular Culture (1-6)
- Spanish American Civilization (choose 3-6 credits)
- SPAN 356 Latin American Civilization (1-4)
- SPAN 496 Ind. Study Abroad: Topics in Spanish American Culture (1-6)
- Spanish Peninsular Literature (choose 3-6 credits)
- SPAN 402 Topics in Spanish Peninsular Literature (1-4)
- SPAN 495 Ind. Study Abroad: Topics in Spanish Peninsular Lit. (1-6)
- Spanish American Literature (choose 3-6 credits)
- SPAN 403 Topics in Spanish American Literature (1-4)
- SPAN 494 Ind. Study Abroad: Topics in Spanish American Lit. (1-6)

**Major Unrestricted Electives** (choose 11-11 credits)

- SPAN 256 Individual Study Abroad: Supervised Project (1-6)
- SPAN 299 Individual Study (1-4)
- SPAN 301 Topics in Language (1-4)
- SPAN 310 Conversation and Composition (1-4)
- SPAN 355 Spanish Civilization (1-4)
- SPAN 356 Latin American Civilization (1-4)
- SPAN 365 Selected Readings (1-4)
- SPAN 393 Individual Study Abroad: Advanced Spanish I (1-6)
- SPAN 394 Supervised Study Abroad: Advanced Spanish II (1-6)
- SPAN 395 Ind. Study Abroad: Readings in Hispanic Literature (1-6)
- SPAN 401 Topics in Linguistics (1-4)
- SPAN 402 Topics in Spanish Peninsular Literature (1-4)
- SPAN 403 Topics in Spanish American Literature (1-4)
- SPAN 407 Topics in Translation (1-4)
- SPAN 450 Spanish for the Professions (4)
- SPAN 464 Internship: FLES (1-6)
- SPAN 492 Independent Study (1-3)
- SPAN 493 Ind. Study Abroad: Topics in Language and Linguistics (1-6)
- SPAN 494 Ind. Study Abroad: Topics in Spanish American Literature (1-6) (choose 0-3 credits)

Required for the Major. Students must demonstrate “Intermediate-high level speaking proficiency” as defined in the ACTFL Proficiency Guidelines established by the American Council on the Teaching of Foreign Languages or equivalent.

Required for the Major. First-hand experiences with the target cultures.

Required for Major (Professional Education, 30 credits). See the SECONDARY EDUCATION section for admission requirements to Professional Education and a list of required professional education courses.

Required Minor: None.

**SPANISH MINOR** (24 credits)

**Minor Core**

**Integrated Productive Skills I**

Students must have sufficient language proficiency in Spanish before enrolling in this course. If students demonstrate an intermediate level of proficiency (or equivalent on ACTFL scale) or complete the equivalent of SPAN 201, they have the required productive skills for success in this course. Due to intensive writing in this course, students may want to complete 202 to build stronger productive skills before attempting 210W.

**Integrated Productive Skills II** (choose 3-6 credits) Choose one course
COURSE DESCRIPTIONS

SPAN 101 (4) Elementary Spanish I
An introduction to the basic language skills of listening, speaking, reading and writing; presentation of condensed cultural notes.
GE-8

SPAN 102 (4) Elementary Spanish II
An introduction to the basic language skills of listening, speaking, reading and writing; presentation of condensed cultural notes.
Pre: SPAN 101 or equivalent
GE-8

SPAN 193 (1-6) Individual Study Abroad: Elementary Spanish I
Introductory work toward proficiency in reading, writing, speaking and listening skills. Content varies. May be repeated for credit. Study for credit must be approved by the department prior to departure.

SPAN 194 (1-6) Individual Study Abroad: Elementary Spanish II
Introductory work toward proficiency in reading, writing, speaking and listening skills. Content varies. May be repeated for credit. Study for credit must be approved by the department prior to departure.

SPAN 201 (4) Intermediate Spanish I
A review of the fundamentals of grammar, practice in written and oral expression, development of listening and reading skills, brief cultural components.
Pre: one year university level Spanish or equivalent
GE-8

SPAN 202 (4) Intermediate Spanish II
A review of the fundamentals of grammar, practice in written and oral expression, development of listening and reading skills, brief cultural components.
Pre: one year university level Spanish or equivalent
GE-8

SPAN 210W (4) Composition and Conversation
Includes basic communication exchanges, common vocabulary and experiences. Emphasis is on improving written expression through compositions related to socio-cultural topics of the countries in which Spanish is the primary language.
WI, GE-8

SPAN 256 (1-6) Individual Study Abroad: Supervised Project
Topics will vary. May be repeated for credit.

SPAN 293 (1-6) Individual Study Abroad: Intermediate Spanish I
Development of reading, writing, speaking and listening skills at the intermediate level. Content varies. May be repeated for credit. Study for credit must be approved by the department prior to departure.
Pre: One year university level Spanish or equivalent

SPAN 294 (1-6) Individual Study Abroad: Intermediate Spanish II
Development of reading, writing, speaking and listening skills at the intermediate level. Content varies. May be repeated for credit. Study for credit must be approved by the department prior to departure.
Pre: One year university level Spanish or equivalent

SPAN 299 (1-4) Individual Study
Variable topics.

SPAN 301 (1-4) Topics in Language
Topics will vary and may be repeated for credit. Language topics include pronunciation and intonation, advanced grammar, Spanish for the marketplace, etc. The focus is on advanced oral or written communication.
Pre: Two years of university level Spanish or equivalent

SPAN 310 (1-4) Conversation and Composition
Emphasis on development of oral communication skills and improvement in writing.

SPAN 311W (4) Intensive Reading and Writing for Spanish Speakers
Develop writing and reading skills for academic and professional settings for students with intermediate/high oral language proficiency who would like to develop their critical reading skills and improve their writing for academic and professional purposes. Practice of orthography, stylistics, compositional elements characteristic of writing in Spanish for a variety of cultural settings, etc. and development of communicative competence for a Spanish-speaking audience based on multicultural readings.
Variable
WI

SPAN 355 (1-4) Spanish Civilization
Major cultural and historical aspects of Spain from ancient times to the present.
Pre: Two years university level Spanish or equivalent

SPAN 356 (1-4) Latin American Civilization
Major cultural and historical aspects of Latin America from pre-colonial times to the present.
Pre: Two years university level Spanish or equivalent

SPAN 365 (1-4) Selected Readings
Discussion and analysis of major themes and movements based on selected readings from representative authors from the Spanish speaking world.
Pre: Two years university level Spanish or equivalent
SPAN 393 (1-6) Individual Study Abroad: Advanced Spanish I
Increase proficiency of reading, writing, speaking and listening skills. Content varies. May be repeated for credit. Study for credit must be approved by the department prior to departure.
Pre: Two years university level Spanish or equivalent

SPAN 394 (1-6) Supervised Study Abroad: Advanced Spanish II
Emphasis is on reading, writing, speaking and listening skills. Content varies. May be repeated for credit. Study for credit must be approved by the department prior to departure.
Pre: Two years university level Spanish or equivalent

SPAN 395 (1-6) Ind. Study Abroad: Readings in Hispanic Literature
An introduction to reading literature in Spanish. Discussion and analysis of representative works by major authors from the Spanish speaking world.

SPAN 396 (1-3) Experiencing Diverse Cultures
This course will focus on acquisition of cultural, personal & universal dimensions of cultural learning that will lead to recognition and (appropriate) response to conditions of marginalized populations as they experience first-hand diverse cultures.
Pre: SPAN 201, SPAN 202
Fall, Spring, Summer
Diverse Cultures - Gold

SPAN 401 (1-4) Topics in Linguistics
Topics may vary. Course may be repeated for credit. Discussion and analysis of Spanish linguistics (syntax, sociolinguistics, historical linguistics, translation theory and practice.)
Pre: Completion of 4 credits of 300 level or equivalent

SPAN 402 (1-4) Topics in Spanish Peninsular Literature
Topics vary: Spanish Literature from Medieval to Modern Times. May be repeated for credit.
Pre: Completion of 4 credits of 300 level or equivalent

SPAN 403 (1-4) Topics in Spanish American Literature
Topics vary: major writers from Spanish America; Spanish American novel; Spanish American poetry; Spanish American drama; Spanish American short story; romanticism, the Mexican novel. May be repeated for credit.
Pre: Completion of 4 credits of 300 level or equivalent

SPAN 407 (1-4) Topics in Translation
Introduction to the theory and practice of translation. This course is targeted at Spanish students and language professionals interested in developing translation skills, as well as in finding out what is involved in becoming a professional translator.

SPAN 408 (1-6) Field Experience in the Elementary School setting for students earning licensure in Spanish or Elementary Education Teaching Specialty in Spanish.
Pre: Completion of eight 300-level credits, or equivalent

SPAN 409 (1-3) Independent Study
Variable topics.
Pre: Completion of eight 300-level credits, or equivalent

SPAN 410 (1-6) Ind. Study Abroad: Topics in Language and Linguistics
Topics will vary. May be repeated for credit. Study for credit must be approved by the department prior to departure.
Pre: Two years university level Spanish

SPAN 411 (1-6) Ind. Study Abroad: Topics in Spanish American Lit.
Topics will vary. May be repeated for credit.
Pre: Two years university level Spanish

SPAN 412 (1-6) Ind. Study Abroad: Topics in Spanish Peninsular Lit.
Topics will vary. May be repeated for credit.
Pre: Two years university level Spanish

SPAN 413 (1-6) Ind. Study Abroad: Topics in Spanish American Culture
Topics will vary. May be repeated for credit.
Pre: Two years university level Spanish

SPAN 414 (1-6) Ind. Study Abroad: Topics in Spanish Peninsular Culture
Topics will vary. May be repeated for credit.

SPAN 492 (1-3) Independent Study
Variable topics.
Pre: Completion of eight 300-level credits, or equivalent

SPAN 493 (1-6) Ind. Study Abroad: Topics in Language and Linguistics
Topics will vary. May be repeated for credit. Study for credit must be approved by the department prior to departure.
Pre: Two years university level Spanish

SPAN 494 (1-6) Ind. Study Abroad: Topics in Spanish American Lit.
Topics will vary. May be repeated for credit.
Pre: Two years university level Spanish

SPAN 495 (1-6) Ind. Study Abroad: Topics in Spanish Peninsular Lit.
Topics will vary. May be repeated for credit.
Pre: Two years university level Spanish

SPAN 496 (1-6) Ind. Study Abroad: Topics in Spanish American Culture
Topics will vary. May be repeated for credit.
Pre: Two years university level Spanish

SPAN 497 (1-6) Ind. Study Abroad: Topics in Spanish Peninsular Culture
Topics will vary. May be repeated for credit.

SPAN 498 (1-4) Internship: Spanish for the Professions
Internship in Spanish is designed to provide opportunities to apply classroom learning to practice and enhance skills, to experience the workplace and professional demands, and to explore a career.
Fall, Spring

SPAN 499 (1-4) Individual Study
Variable topics.
Pre: completion of eight 300-level credits, or equivalent

SPAN 450 (4) Spanish for the Professions
This course is targeted at language professionals including teachers, business professionals, health professionals, law enforcement professionals. The purpose is to improve overall oral proficiency and address communication issues and vocabulary associated with the students’ field of expertise.

SPAN 464 (1-6) Internship: FLES
Field Experience in the Elementary School setting for students earning licensure in Spanish or Elementary Education Teaching Specialty in Spanish.

SPAN 470 (1-3) Independent Study
Variable topics.
Pre: Completion of eight 300-level credits, or equivalent

Special Education: Academic and Behavioral Strategist

College of Education
Department of Special Education
313 Armstrong Hall • 507-389-1122
Website: http://ed.mnsu.edu/sped

Chair: Alexandra Panahon
Undergraduate Major Coordinator: Sean Wachsmuth

Faculty: Kyena Cornelius, Aaron Deris, Alexandra Panahon, Kiersten Hensley, Karen Hurbutt, Andrew Johnson, Kimberly Johnson-Harris, Dana Wagner, Sean Wachsmuth, Teri Wallace


The Department of Special Education serves the needs of undergraduate and graduate students at Minnesota State Mankato seeking to become licensed Special Educators in the state of Minnesota. The Special Education undergraduate program is designed to meet the licensure standards as determined by the Minnesota Board of Teaching. The five-semester program of study is typically begun in the second year after successful completion of General Education requirements. The Department employs a cohort model for the preparation of undergraduates, with all students from a given year considered members of the same cohort. Cohort students concurrently enroll in the same block of courses. All interested students are highly encouraged to contact the Coordinator for program information and guidance for admission procedures.

Policies/Information

Incoming and Transfer Student Orientation. Orientation makes a significant difference in a student’s success and persistence in college. All new and transfer students are required to attend an orientation program before registering for...
classes. The College of Education Student Relations Coordinator conducts the Academic Success session. This session includes explanation of general education and general education coursework required for program, cultural diversity requirements, academic performance, and assignment of program advisors. Students are accompanied to a registration lab to complete their upcoming term schedule.

Transfer Credit Evaluation. Evaluation of prior academic course work will be based on evidence presented through (a) transcripts, (b) course syllabi, (c) course description. Students have a right to appeal this decision.

Required General Education Course and Credits
CDIS 205 Beginning Sign Language (3 cr.) OR HLTH 210 First Aid and CPR (Goal Area 11: Human Performance)
HLTH 240 Drug Education (3 cr.) (Goal Area 5: History and the Social & Behavioral Sciences)
MATH 201 Elements of Mathematics 1 (3 cr.) (Goal Area 4: Math & Logical Reasoning)

Admission to the Special Education Program
Undergraduate Major Coordinator: Sean Wachsmuth

Admission to Professional Education
Coordinator of Admission to Professional Education
Myriam Baxter, Armstrong Hall 118

Mankato Program
Students working toward a teaching degree must be admitted to Professional Education during their first semester in the program to allow continued registration.
1. Minimum of 40 earned semester credits
2. Minimum of 2.75 cumulative GPA
3. Evidence of registration for the MTLE Basic Skills Exams
4. Completion of MATH 201, HLTH 240, and CDIS 205 or HLTH 210

Program Continuance. The Special Education Department will monitor block entrance and continuance in program. Students must maintain a 3.0 cumulative GPA in Program coursework.

Admission to Student Teaching. Student teaching at Minnesota State Mankato is a result-oriented, performance-based, 16-week program, requiring the demonstration of an acceptable level of teaching performance in the areas of planning and preparation, enhancing the learning environment, teaching for student learning, and professionalism. Multiple methods of assessment are used and evidence is collected to provide a view of the student teacher’s skills and dispositions. These methods include direct observations of teaching activities by cooperating teachers and University faculty, the use of videotaped lessons and activities for self-assessment, use of logs, participation in online activities, and participation in activities reflective of the professional responsibilities of teachers (e.g., parent conferences). The Director of Clinical and Field Experience requests placements for all student teachers in partner districts. Student teachers should not contact schools regarding their placement. Application materials are available in 119 Armstrong Hall.

Admission to the student teaching experience is contingent upon completion of:
1. completion of all General Ed and Diverse Cultures program requirements.
2. a grade point average of 3.0, grades of “C” or better for all major coursework.
3. admittance to Professional Education
4. completion of all methods and professional education course work
5. completion and validation of formal application materials one year prior to student teaching semester (obtain specific dates from 119 Armstrong Hall)
6. attendance at all preliminary student teaching meeting(s)
7. submission of scores on the MTLE Basic Skills Exam
8. recommendation of advisor
9. approval of placement by school district administration and cooperating teacher, and Director of Clinical and Field Experience, and completion of Minnesota State Police background check materials.

Prerequisites to the Major
HLTH 210 First Aid & CPR (3)
MATH 201 Elements of Mathematics 1 (3)
CDIS 205 Beginning Sign Language (3)

Major Common Core
SPED 333 Transition Plan/Secondary Methods for Students w/Mild Moderate Disabilities (4)
SPED 401 IEP Writing and Professional Practice (4)
SPED 404 Instructional Decision Making (4)
SPED 406 Strategies for Teaching Learners with Special Needs: Reading & Writing (4)
SPED 407 Positive Behavioral Interventions and Supports (3)
SPED 408 Individuals with Diverse and Exceptional Needs (4)

Teacher Licensure Coordinator. Gail Orcutt, 118 Armstrong Hall
The University recommends licensure to a state upon satisfactory completion of a licensure program. However, licensure does not occur automatically through graduation and the awarding of a diploma. Students need to make application for a Minnesota teaching license at the close of the term in which they graduate. The College of Education, 118 Armstrong Hall, coordinates the licensure process. In addition to meeting all program requirements, the MTLE Basic Skills examination of skills in reading, writing, and mathematics needs to be successfully completed, as well as the Pedagogy and Content examinations. Minnesota State Law requires that all candidates applying for initial licensure in this state be fingerprinted for national background checks. A conduct review statement will also need to be completed and signed. There is a fee for the criminal background check and a fee for the issuance of a State of Minnesota teaching license.

Application for Graduation. No special departmental activities are required of students in this Major for Graduation. Students must follow the university procedure for application for graduation. See front section of this Catalog for the steps in this process and the corresponding timelines.

Clinical Experiences. A major component of professional education coursework involves clinical experiences in area schools. These experiences are sequential in development. Multiple methods of assessment are used to document competencies. The successful completion of each clinical experience is necessary for progression in the program. All clinical placements are set up by the Office of Clinical and Field Experience.

Background Checks. Students involved in any clinical experience need to undergo a background check (once per academic year) to assess misdemeanor and felony conviction records maintained at the Minnesota Bureau of Criminal Apprehension. This information is provided to districts for their determination of suitability. The Office of Clinical and Field Experience coordinates the background check process.

GPA Policy. All non-clinical courses that make up the program courses must be taken on a graded basis. Students must maintain a cumulative GPA of 3.0 and earn at least a “C” in all major coursework for program continuance.

SPECIAL EDUCATION: ACADEMIC AND BEHAVIORAL STRATEGIST BS
Degree completion = 120 credits

This program will prepare teacher candidates to work as special education teachers for students with mild moderate disabilities and will prepare them for licensure as an Academic and Behavioral Strategist.

There are five structured and sequenced semesters in the Major in Special Education, leading to the Bachelor in Science Degree. Each is made of up required courses that meet one or more Minnesota Board of Teaching requirements for Standards of Effective Practice (A), Core Teaching Skills for Special Educators (B), and specific content requirements (C). The first semester courses are taken prior to admission to Professional Education. Continued enrollment in semester 2 through 5 is contingent on the academic status of the student.

Prerequisites to the Major
HLTH 240 Drug Education (3)
MATH 201 Elements of Mathematics 1 (3)
Choose one of the following (choose 3 credits)
CDIS 205 Beginning Sign Language (3)
HLTH 210 First Aid & CPR (3)

Major Common Core
SPED 333 Transition Plan/Secondary Methods for Students w/Mild Moderate Disabilities (4)
SPED 401 IEP Writing and Professional Practice (4)
SPED 404 Instructional Decision Making (4)
SPED 406 Strategies for Teaching Learners with Special Needs: Reading & Writing (4)
SPED 407 Positive Behavioral Interventions and Supports (3)
SPED 408 Individuals with Diverse and Exceptional Needs (4)
SPED 409 (4) Learning and Human Development for Diverse Learners
Introduces students to theories of learning and human development as they relate to regular and diverse learning populations. Students will acquire an understanding of the many factors that affect learning and human development and strategies that can be used to enhance learning for all learning populations.

SPED 410 (4) Assessment, Evaluation, and Individualized Planning for Diverse Learners
Provides the student learner with the knowledge and skills to plan, develop, and implement the IEP for a student with DCD. In addition, the student learner will develop an understanding of the alternative dispute processes in the state of Minnesota. The student learner will learn the legal requirements of the IEP process and parental participation including a) how to operate the IEP process, b) conciliation process, c) participation in mediation, and d) due process as outlined in IDEA 1997. Legal issues and requirements will be discussed.

SPED 411 (4) Effective Strategies for the Inclusive Classroom
Describes and demonstrates strategies that teachers can use to differentiate the curriculum to meet the needs of special learners in an inclusive classroom. Course will also examine the latest knowledge related to intelligence, creativity, holistic education and classroom differentiation.

SPED 412 (4) Due Process, Planning & Design of the Individual Education Program
Provides student learner with the knowledge and skills to plan, develop, and implement the IEP for a student with DCD. In addition, the student learner will develop an understanding of the alternative dispute processes in the state of Minnesota. The student learner will learn the legal requirements of the IEP process and parental participation including a) how to operate the IEP process, b) conciliation process, c) participation in mediation, and d) due process as outlined in IDEA 1997. Legal issues and requirements will be discussed.

SPED 413 (4) Professional Growth and Development for Teachers of Diverse Learners
Introduces students to methods and strategies for personal and professional growth and development. As a result of taking this course, students will be able to a) engage in reflective inquiry for personal and professional growth, b) identify and demonstrate dispositions necessary for teaching special needs learners, c) understand the cultural, social, and other environmental effects on learning and human development, and d) use strategies for personal and professional growth.

SPED 414 (4) Literary Methods for an Inclusive Classroom: Diverse Learners
Provides an introduction to reading and language arts instruction for special needs and other students in an inclusive classroom. As a result of taking this course, students will be able to plan and implement effective literacy lessons and utilize a variety of differentiation strategies.

SPED 422 (4) Strategies for Teaching Learners w/Special Needs: Math and Science
This course provides instruction in the connections between critical content concepts, standards, research-based practices in mathematics and science, and students with mild-moderate disabilities for the purpose of developing goals and objectives in order to implement effective instruction.

SPED 448W (4) Behavior Management and Learning Environments for Diverse Learners
This course is designed to teach pre-service special education teachers the basics of Applied Behavior Analysis as well as classroom management skills that foster positive interactions among students in pre-K through 12th grade. Students will learn to conduct behavioral assessments and report results through professional writing.

SPED 458 (4) Seminar: Student Teaching
Focuses on competencies, strategies, issues and trends to prepare the student to teach persons with DCD.
Coreq: SPED 449
Sport Management

College of Allied Health and Nursing
Department of Human Performance
1400 Highland Center • 507-389-6313
Website: http://ahn.mnsu.edu/hp/undergraduate/sportmanagement.html

Chair: Robert Pettitt
Program Director: Jon Lim

Mission Statement of the Sport Management Program: The sport management program at Minnesota State Mankato is committed to excellence in teaching, research and service in and for the sport industry.

Program Purpose. The Sport Management program is designed to provide professional preparation that develops competitive sport management leaders through a comprehensive education in both theory and its application in sports business. The Sport Management major offers students a broad base educational foundation to prepare them for a career in sport management through a comprehensive education in both theory and its application in sports business. The major prepares students with sport business concepts and develops skills and knowledge in the following areas: management, marketing, promotions, communication, legal preparation, public relations, consumer behavior, facilities, and finance.

POLICIES/INFORMATION

Admission to Major. All sport management majors and potential sport management majors who plan on applying to the sport management program need to have sport management as their declared major.

Criteria Considered for Admission to the Sport Management Program
1. Completion of at least 30 semester credits.
2. Minimum career grade point average (GPA) of a 2.7 on a 4.0 scale.
3. Minimum grade of a “C” in all required prerequisite and support courses.

Please note: Meeting these minimum requirements does not guarantee admission to the major.

The following courses must be completed before applying:

ENG 101 English Composition (4)
PSYC 101 Introduction to Psychological Science (4)
ECON 201 Principles of Macroeconomics (3) OR ECON 202 Principles of Microeconomics (3)
CMST 212 Professional Communication and Interviewing (3) OR CMST 200 Public Speaking (3)
SOC 101 Introduction to Sociology (3)
MATH 112 College Algebra (4)

From all eligible applicants, students will be admitted on the basis of their rank order on the criterion of cumulative GPA and their GPA in the six courses listed above. If all six courses are not complete when a student applies, their application will not be considered. In the past two admission periods, the pre-sport management GPA of admitted students varied between 2.95 and 4.0.

GPA Policy. Students must maintain a minimum cumulative GPA of 2.5 once admitted into the program in order to take the required sport management courses. Students planning to major in the College of Allied Health and Nursing have an advisor from their area of interest assigned to them. Questions and concerns pertaining to advising and the assignment of advisors can be answered by Shirley Murray, Student Relations Coordinator, 124 Myers Field House, 507-389-5194.

SPORT MANAGEMENT BS
Degree completion = 120 credits

Required General Education

ENG 101 Composition (4)
MATH 112 College Algebra (4)
PSYC 101 Introduction to Psychological Science (4)
SOC 101 Introduction to Sociology (3)
ECON 201 Principles of Macroeconomics (3)
ECON 202 Principles of Microeconomics (3)
CMST 102 Public Speaking (3)
CMST 212 Professional Communication and Interviewing (4)

Pre-requisites to the Major

ACCT 217 Survey of Financial and Managerial Accounting (4)

Major Common Core

Students must complete a minimum of 9 combined credits from HP 488 and HP 496.

HP 141 Introduction to Sport Management (2)
HP 290 Psycho-Social Aspects of Sport (3)
HP 325 Sport Ethics and Professional Development (3)
HP 360 Foundations of Sport Management (3)
HP 435 Planning Sport Facilities (3)
HP 459 Financial Aspects of Sport (3)
HP 462 Sports Administration (3)
HP 465 Legal Aspects of Physical Education and Sport (3)
HP 468 Sport Marketing (3)
HP 469 Event Management in Sport (3)
HP 488 Applied Sport Business (3)
HP 496 Internship (1-10)

Major Restricted Electives (choose 6 credits)

HP 437 Sport Media, Sponsorship and Sales (3)
HP 463 Seminar in Sport Management (3)
HP 464 Analysis of Sport Data (3)
HP 475 International Sport Management (3)

Required Minor: Yes. See Advisor.

Minor must be in one of the following areas: Accounting, Athletic Coaching, Business Law, Community and Corporate Fitness, Marketing, Economics, International Business, Financial Planning, and Human Resources Management. Other minors are accepted upon advisor’s approval.
Statistics

Statistics is the mathematical science of studying and learning from data. Statisticians acquire, organize, analyze, present and draw inferences from data. Inferences about a population are communicated with measures of likelihood. Statistical analysis is used in a variety of disciplines to communicate uncertainties for the purpose of making informed decisions. Applications of statistics are all around us such as in weather forecasting, surveys, quality control, market demand, causality, and effectiveness of treatments, to name only a few.

The Department offers a major and minor in statistics. The major provides a sufficient background in statistics, mathematics, and computer science to enable students to pursue a career in business, industry, or actuarial science as well as to pursue advanced study in statistics. The major is organized into 3 tracks to allow a well prepared student can expect to complete the major in four years. The minor gives students a basic core of statistics that would compliment majors in many areas by providing a thorough grounding in basic statistical principles, methods of data analysis, and a knowledge base to assist in understanding statistical procedures applied to a variety of disciplines.

POLICIES/INFORMATION

A student must be admitted to a major to be permitted to take 300- and 400-level courses. Admission is granted by the department. In addition to minimum university admission requirements of: a minimum of 32 earned semester credit hours and a minimum cumulative GPA of 2.00, students must complete 10 credits in mathematics and statistics counting towards the Major with a 2.5 GPA.

Contact the College of Science, Engineering and Technology Student Relations Office for application procedures.

GPA Policy. Statistics major and minors must earn a grade of 2.00 (“C”) or better in all courses applied to the major or minor.

Course Application Policy. Within each major or minor, no course may be applied to more than one requirement.

P/N Grading Policy. All 300- and 400-level courses are offered for grade only. Students may substitute for the above requirements based on documentation of:
1. equivalent or higher scores on standardized college admissions tests, such as SAT quantitative scores, that report a separate mathematics sub-score within two calendar years;
2. successful completion of equivalent prior post-secondary education, such as course transfer evaluations or Cambridge International Examinations; or
3. enrollment exclusively in non-credit courses or programs. Students requesting such substitutions should submit the documentation to the Chair of the Department of Mathematics and Statistics for evaluation. The evaluation will be based on nationally accepted concordances between the testing instruments and/or courses. The Chair of the Department of Mathematics and Statistics or designee should respond in writing to student requests within three weeks of receiving them.

Procedure for Waiver.
1. Students not meeting the requirements for enrollment in MATH 112, MATH 201 or STAT 154 may request a waiver to this policy.
2. Written requests for waivers to the policy must be submitted to the Chair of the Department of Mathematics and Statistics, and should include evidence of alternate means of demonstrating readiness for college algebra including but not limited to:
   a. High school or recent post-secondary coursework which would indicate adequate preparation (transcripts or other records which include course titles, levels and grades are acceptable), or
   b. Verification of extenuating circumstances which may have affected performance on previous exams.
3. Requests for waivers should be submitted by the following deadlines:
   a. August 5th for fall semester enrollment.
   b. December 1st for spring semester enrollment.
   c. May 1st for summer session enrollment.
4. The Chair of the Department of Mathematics and Statistics or designee should respond in writing to student requests within three weeks of receiving them.

NOTE 1: The Calculus Readiness test may be taken in addition to the ACCUPLACER instrument by students seeking to enroll in courses above MATH 112.

NOTE 2: Documented ACCUPLACER scores from any Minnesota State Colleges and Universities (MNSCU) institution taken within two calendar years will be accepted.

NOTE 3: ACT scores and ACCUPLACER scores that are more than two years old will not be accepted for mathematics placement.

Courses, Minimum ACT Subscore, Minimum ACCUPLACER Elementary Algebra Score, Minimum ACCUPLACER College Level Math Score, Minimum ACCUPLACER Calculus Readiness Score, Course Prerequisites

<table>
<thead>
<tr>
<th>Course</th>
<th>Minimum ACT Subscore</th>
<th>Minimum ACCUPLACER Elementary Algebra Score</th>
<th>Minimum ACCUPLACER College Level Math Score</th>
<th>Minimum ACCUPLACER Calculus Readiness Score</th>
<th>Course Prerequisites</th>
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<tr>
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<td>Os</td>
<td>76</td>
<td>AND</td>
<td>50</td>
</tr>
<tr>
<td>Stat 154</td>
<td>19</td>
<td>Os</td>
<td>76</td>
<td>AND</td>
<td>50</td>
</tr>
</tbody>
</table>

Placement Information for Mathematics and Statistics Course

Enrollment. Students seeking enrollment in MATH 112: College Algebra, MATH 113: Trigonometry, MATH 115: Precalculus Mathematics, MATH 121: Calculus I, MATH 130: Finite Mathematics and Introductory Calculus, MATH 201: Elements of Mathematics I, or STAT 154: Elementary Statistics must demonstrate readiness to succeed in the course by satisfying the corresponding requirement in the following table.

Mezbahur Rahman, Hyekung Min, Deepak Sanjel, Han Wu

Website: www.cset.mnsu.edu/dept/mathstat/
5. Students whose initial requests are denied may submit a written appeal to the Dean of the College of Science, Engineering and Technology. The Dean should respond in writing, with a copy to the Chair of the Department of Mathematics and Statistics.

6. The Dean’s decision is the final step in this appeal process.

Policy Rationale. The purpose of the policy is to place students in a course that is developmentally appropriate to help ensure their long term success. Data suggests students not meeting these guidelines have a higher likelihood of having to repeat a course.

STATISTICS BS
Degree completion = 120 credits

Required General Education
MA TH 121 Calculus I (4)

Major Common Core
IT 210 Fundamentals of Programming (4)
IT 214 Fundamentals of Software Development (4)
IT 340 Introduction to Database Systems (4)
MA TH 122 Calculus II (4)
MA TH 223 Calculus III (4)
MA TH 247 Linear Algebra I (4)
STAT 154 Elementary Statistics (3)
STAT 354 Concepts of Probability and Statistics (3)
STAT 450 Regression Analysis (3)
STAT 451 Experimental Designs (3)
STAT 455 Theory of Statistics I (4)
STAT 456 Theory of Statistics II (4)
STAT 457 Sample Survey, Design and Analysis (3)
STAT 458 Categorical Data Analysis (3)
STAT 459 Nonparametric Methods (3)
STAT 492 Statistics Capstone Experience (3)

Major Emphasis: Applied Mathematics Track
(choose a minimum of 16 credits from the following list)

MA TH 290 Foundations of Mathematics (4)
MA TH 321 Ordinary Differential Equations (4)
MA TH 375 Introduction to Discrete Mathematics (4)
MA TH 422 Partial Differential Equations (4)
MA TH 425 Mathematical Modeling (4)
MA TH 470 Numerical Analysis I (4)
MA TH 471 Numerical Analysis II (4)

STAT 356 Introduction to Programming in SAS
Fall, Spring, Summer
Pre: MA TH 122 with “C” (2.0) or better or consent

Major Emphasis: Information Technology Track
(choose a minimum of 16 credits from the following list)

IT 310 Data Structures & Algorithms (4)
IT 320 Machine Structures and Operating Systems (4)
IT 350 Information Security (4)
IT 360 Introduction to Data Communication and Networking (4)
IT 380 Systems Analysis and Design (4)
MA TH 470 Numerical Analysis I (4)
MA TH 471 Numerical Analysis II (4)

Major Emphasis: Biological Science Track
(choose a minimum of 16 credits from the following list)

BIOL 105 General Biology I (4)
BIOL 211 Genetics (4)
BIOL 320 Cell Biology (4)
BIOL 479 Molecular Biology (4)

Required Minor: None

STATISTICS MINOR

Required for Minor
MA TH 121 Calculus I (4)
MA TH 122 Calculus II (4)
STAT 354 Concepts of Probability and Statistics (3)
STAT 450 Regression Analysis (3)
STAT 451 Experimental Designs (3)

(choose one course from the following)
STAT 455 Theory of Statistics I (4)
STAT 457 Sample Survey, Design and Analysis (3)
STAT 458 Categorical Data Analysis (3)
STAT 459 Nonparametric Methods (3)

COURSE DESCRIPTIONS

STAT 154 (3) Elementary Statistics
An introduction to statistical concepts and methods that is applicable to all disciplines. Topics include descriptive measures of data, probability and probability distributions, statistical inference, tests of hypotheses, confidence intervals, correlation, linear regression, and analysis of variance. The use of statistical software will be emphasized.
Pre: ACT Math sub-score of 19 or higher, successful completion of MA TH 098 or appropriate placement scores (see Placement Information under Statistics)
Fall, Spring, Summer
GE-4

STAT 354 (3) Concepts of Probability & Statistics
This is a calculus-based course covering introductory level topics of probability and statistics. It is designed to meet the needs of both the practitioner and the person who plans further in-depth study. Topics include probability, random variables and probability distributions, joint probability distributions, statistical inference (both estimation and hypothesis testing), analysis of variance, regression, and correlation. Same as MA TH 354.
Pre: MA TH 122 with “C” (2.0) or better or consent
Fall, Spring, Summer

STAT 356 Introduction to Programming in SAS
Fall, Spring, Summer
Pre: STA T 154 or instructor’s approval
On-Demand

STAT 398 (0) CPT: Co-Operative Experience
Curricular Practical Training: Co-Operative Experience is a zero-credit full-time practical training experience for one summer and on adjacent fall or spring term. Special rules apply to preserve full-time student status. Please contact an advisor in your program for complete information.
Pre: At least 60 credits earned; in good standing; instructor permission; co-op contract; other prerequisites may also apply.
Fall, Spring, Summer

STAT 450 (3) Regression Analysis
Simple and multiple regression, correlation, analysis of variance and covariance.
Pre: MA TH 354 / STAT 354 or STAT 455 with “C” (2.0) or better or consent
Spring

STAT 451 (3) Experimental Designs
Completely randomized, block, fractional factorial, incomplete block, split-plot, Latin squares, expected mean squares, response surfaces, confounding, fixed effects and random effects models.
Pre: MA TH 354 / STAT 354 or STAT 455 with “C” (2.0) or better or consent
Spring (Even Years)

STAT 455 (4) Theory of Statistics I
A mathematical approach to statistics with derivation of theoretical results and of basic techniques used in applications. Includes probability, continuous probability distributions, multivariate distributions, functions of random variables, central limit theorem and statistical inference. Same as MA TH 455.
Pre: MA TH 223 with “C” (2.0) or better or consent
Fall

STAT 456 (4) Theory of Statistics II
A mathematical approach to statistics with derivation of theoretical results and of basic techniques used in applications, including sufficient statistics, additional statistical inference, theory of statistical tests, inferences about normal models and nonparametric methods. Same as MA TH 456.
Pre: MA TH 455, STAT 455 with “C” (2.0) or better or consent
Spring
STATISTICS CONTINUED

STAT 457 (3) Sample Survey, Design and Analysis
Sampling distributions: means and variances. Bias, robustness and efficiency. Random sampling, systematic sampling methods including stratified random sampling, cluster sampling and two-stage sampling, ratio, regression, and population size estimation. Suitable statistical software is introduced, for example, MATLAB, R, SAS, etc.
Pre: MATH 354, STAT 354 or STAT 154 with “C” (2.0) or better or consent Fall (Even Years)

STAT 458 (3) Categorical Data Analysis
Forms of multivariate analysis for discrete data, two dimensional tables, models of independence, log linear models, estimation of expected values, model selection, higher dimensional tables, logistic models and incompleteness. Logistic regression. Suitable statistical software is introduced, for example, MATLAB, R, SAS, etc.
Pre: MATH 354, STAT 354 or STAT 154 with “C” (2.0) or better or consent ALT-Fall

STAT 459 (3) Nonparametric Methods
Derivation and usage of nonparametric statistical methods in univariate, bivariate, and multivariate data. Applications in count, score, and rank data, analysis of variance for ranked data. Nonparametric regression estimation. Suitable statistical software is introduced, for example, MATLAB, R, SAS, etc.
Pre: MATH 354, STAT 354 or STAT 154 with “C” (2.0) or better or consent Alt-Spring

STAT 488 (1-3) Seminar
The study of a particular topic primarily based upon recent literature. May be repeated for credit on each new topic.

STAT 491 (1-4) In-Service
A course designed to upgrade the qualifications of persons on-the-job. May be repeated for credit on each new topic.

STAT 492 (3) Statistics Capstone Experience
This course is designed to allow undergraduate students an opportunity to integrate their statistics experiences by engaging each student in working on problems in applied or theoretical statistics.
Pre: STAT 457, STAT 458, STAT 459, STAT 450 (at least two of these) Spring

STAT 495 (1-4) Selected Topics
A course in an area of statistics not regularly offered. May be repeated for credit on each new topic.

STAT 498 (1-12) Internship
Provides a student the opportunity to gain expertise and experience in a special field under the supervision of a qualified person.

STAT 499 (1-4) Individual Study
Independent individual study under the guidance and direction of a faculty member. Special arrangements must be made with an appropriate faculty member. May be repeated for credit of each new topic.

SWEDISH

Swedish
College of Arts & Humanities
Department of World Languages & Cultures
227 Armstrong Hall • 507-389-2116
Website: www.mnsu.edu/languages

Chair: Gregory Taylor

Please go to Scandinavian studies to see course descriptions.

SCAN 111 Elementary Swedish I (4)
SCAN 112 Elementary Swedish II (4)
SCAN 294 Intermediate Swedish I (1-4)
SCAN 295 Intermediate Swedish II (1-4)

TEACHING ENGLISH AS A SECOND LANGUAGE (TESL)

Teaching English as a Second Language (TESL) (See English)

THEATRE ARTS

Theatre Arts
College of Arts & Humanities
Department of Theatre and Dance
201 Earley Center for Performing Arts • 507-389-2118
Website: www.MSUTheatre.com
Fax: 507-389-2922

Chair: Paul J. Hustoles

George Grubb, Heather Hamilton, Julie Kerr-Berry, Mike Lagerquist, David McCarl, John Paul, Catherine Schmeal-Swope, Steven Smith, Dan Stark, Nick Wayne

The Department of Theatre and Dance is dedicated to two primary goals: to provide students with the highest caliber of training in theatre and dance that will allow them to create performances of any kind at any level, and to provide the southern Minnesota region with a multi-faceted, high quality theatrical and dance experience. These goals interweave to provide entertainment and education to those on both sides of the curtain.

POLICIES/INFORMATION

Admission to Major is granted by the department. Contact the department for application procedures.

See “Dance” for Dance Major and Minor requirements.

GPA Policy. A grade of “C” or better must be earned for major or minor credit.

P/N Grading Policy. Courses applied to a major or minor in the department may not be taken on a P/N basis, except by permission of the chair.

Limit on Number of Activity Credits. Students must take 5 activity credits from three areas, and no more than 6 activity credits total. No student may take more than 4 practicum credits total. Only one activity or practicum credit is allowed per production.

Summer Stock Activity Credits. No one may take more than 4 summer stock activity credits per summer.
THEATRE ARTS

Required General Education
THEA 100 Introduction to Theatre (3)

Major Core
THEA 110 Fundamentals of Acting (3)
THEA 235 Fundamentals of Directing (3)
THEA 381W Play Analysis (3)
THEA 481 Theatre History I (3)
THEA 482 Theatre History II (3)

Theatre Activity (choose 5 credits from at least three different areas)
THEA 102 Theatre Activity: Acting (1-2)
THEA 103 Theatre Activity: Management (1-2)
THEA 105 Theatre Activity: Stagecraft (1-2)
THEA 107 Theatre Activity: Costume (1-2)
THEA 109 Theatre Activity: Sound (1-2)

Major Restricted Electives (choose 1 Cluster) Admission through audition only.

BFA ACTING OPTION
Degree completion = 120 credits

Choose any 6 credits of studio dance; must have 3 credits of THEA 300; must have 4 credits of THEA 302; must have 3 credits of any approved Theatre elective.

THEA 121 Movement for Theatre (1)
THEA 210 Intermediate Acting (3)
THEA 215 Audition Methods (2)
THEA 252 Theatre Technology (3)
THEA 265 Stage Makeup (2)
THEA 300 Summer Stock (3)
THEA 302 Practicum: Acting (1-2) (4 credits total)
THEA 315 Careers in Theatre (1)
THEA 410 Music Theatre Acting I (3)
THEA 411 Musical Theatre Acting II (3)
THEA 413 Theatre Speech II (2)
THEA 414 Stage Dialects I (2)
THEA 415 Stage Dialects II (2)
THEA 416 Acting Scene Studies (3)
THEA 417 Acting Techniques (3)
THEA 418 Acting Styles (3)
THEA 419 Acting for Radio/TV (3)
THEA 426 Stage Combat (2)

Required Minor: None.

BFA MUSICAL THEATRE OPTION
Degree completion = 120 credits

Must have 3 credits of THEA 300; must have 6 credits of any Theatre electives.

THEA 240 Basic Design (3)
THEA 255 Stagecraft (3)
THEA 260 Costume Construction (3)
THEA 270 Lighting Technology (3)
THEA 275 Sound Technology (3)
THEA 300 Summer Stock (3)
THEA 400 Portfolio Seminar (1)
THEA 430 Theatre Management (3)
THEA 451 Drafting for the Theatre (3)
THEA 485 Theatre Dramaturgy (3)

Required Minor: None

BFA THEATRE DESIGN/TECHNOLOGY OPTION
Degree completion = 120 credits

Must have 3 credits of THEA 300; must take 6 credits of any Theatre electives.

THEA 240 Basic Design (3)
THEA 255 Stagecraft (3)
THEA 260 Costume Construction (3)
THEA 270 Lighting Technology (3)
THEA 275 Sound Technology (3)
THEA 300 Summer Stock (3)
THEA 400 Portfolio Seminar (1)
THEA 430 Theatre Management (3)
THEA 451 Drafting for the Theatre (3)

SELECT THREE
THEA 444 Styles and Ornamentation (3)
THEA 464 Costume History (3)

THEA 440 Scene Design I (3)
THEA 460 Costume Design I (3)
THEA 470 Lighting Design I (3)
THEA 475 Sound Design I (3)

THEA 441 Scene Design II (3)
THEA 461 Costume Design II (3)
THEA 471 Lighting Design II (3)
THEA 476 Sound Design II (3)

Required Minor: None

THEATRE ARTS GENERALIST BA OPTION
Degree completion = 120 credits

Required General Education
THEA 100 Introduction to Theatre (3)

Major Common Core
THEA 110 Fundamentals of Acting (3)
THEA 235 Fundamentals of Directing (3)
THEA 381W Play Analysis (3)
THEA 481 Theatre History I (3)
THEA 482 Theatre History II (3)

Theatre Activity (choose 5 credits from at least three different areas)
THEA 102 Theatre Activity: Acting (1-2)
THEA 103 Theatre Activity: Management (1-2)
THEA 105 Theatre Activity: Stagecraft (1-2)
THEA 107 Theatre Activity: Costume (1-2)
THEA 109 Theatre Activity: Sound (1-2)

Major Restricted Electives

Professional Prep (choose 1 credit)
THEA 315 Careers in Theatre (1)
THEA 400 Portfolio Seminar (1)

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**Theatre Technology (choose 3 credits) (may not be repeated)**
- THEA 252 Theatre Technology (3)
- THEA 255 Stagecraft (3)
- THEA 260 Costume Construction (3)
- THEA 270 Lighting Technology (3)
- THEA 275 Sound Technology (3)

**Foundations** (choose 9 credits) May also choose any 2-credit Dance class
- THEA 121 Movement for Theatre (1)
- THEA 210 Intermediate Acting (3)
- THEA 214 Singing for the Actor (1)
- THEA 215 Audition Methods (2)
- THEA 231 Stage Management (1)
- THEA 240 Basic Design (3)
- THEA 252 Theatre Technology (3)
- THEA 255 Stagecraft (3)
- THEA 260 Costume Construction (3)
- THEA 265 Stage Makeup (2)
- THEA 270 Lighting Technology (3)
- THEA 275 Sound Technology (3)
- THEA 285W Theatre of Diversity (3)

**Advanced (choose 15 credits)**
- DANC 322 Dance Improvisation (2)
- THEA 410 Musical Theatre Acting I (3)
- THEA 412 Theatre Speech I (2)
- THEA 413 Theatre Speech II (2)
- THEA 414 Stage Dialects I (2)
- THEA 415 Stage Dialects II (2)
- THEA 416 Acting Scene Studies (3)
- THEA 417 Acting Techniques (3)
- THEA 418 Acting Styles (3)
- THEA 419 Acting for Radio/TV (3)
- THEA 430 Theatre Management (3)
- THEA 435 Advanced Directing Methods (3)
- THEA 440 Scene Design I (3)
- THEA 451 Drafting for the Theatre (3)
- THEA 455 Technical Direction (3)
- THEA 460 Costume Design I (3)
- THEA 470 Lighting Design I (3)
- THEA 475 Sound Design I (3)
- THEA 483 Musical Theatre History (3)
- THEA 485 Theatre Dramaturgy (3)
- THEA 487 Playwriting (3)

**Other Graduation Requirements**

**Required for Bachelor of Arts (BA) ONLY:** Language (8 credits)

**Required Minor: None.**

**THEATRE ARTS MINOR**

**Core**
- THEA 235 Fundamentals of Directing (3)
- THEA 252 Theatre Technology (3)
- THEA 381 Play Analysis (3)

(choose 3 credits)
- THEA 101 Acting for Everyone (3)
- THEA 110 Fundamentals of Acting (3)

**Theatre Activity** (choose 5 credits)
From at least three different areas
- THEA 102 Theatre Activity: Acting (1-2)
- THEA 103 Theatre Activity: Management (1-2)
- THEA 105 Theatre Activity: Stagecraft (1-2)
- THEA 107 Theatre Activity: Costume (1-2)
- THEA 108 Theatre Activity: Lighting (1-2)
- THEA 109 Theatre Activity: Sound (1-2)

(choose 3 credits)
- THEA 481 Theatre History I (3)
- THEA 482 Theatre History II (3)

**Elective**
In addition, choose 3 credits of any Theatre course except THEA 100, or more than 5 Theatre Activity classes.

**THEATRE ARTS CONTINUED**
THEA 100 (3) Introduction to Theatre
Survey of theatre arts; lectures, with lab experience available.
Note: Students may not take both THEA 115 and this class.
Fall, Spring
GE-6

THEA 101 (3) Acting for Everyone
Performance scenes and exercises for the beginner.
Fall, Spring
GE-6

THEA 102 (1-2) Theatre Activity: Acting
Acting in a mainstage or approved production. May be repeated.
Pre: Consent
Fall, Spring
GE-11

THEA 103 (1-2) Theatre Activity: Management
Work on stage or house management, or public relations. May be repeated.
Pre: Consent
Fall, Spring
GE-11

THEA 104 (1-2) Theatre Activity: Dance Captain
Serve as Dance Captain, to assist the Choreographer, for a mainstage or approved production. May be repeated.
Pre: Consent
Fall, Spring

THEA 105 (1-2) Theatre Activity: Stagecraft
Work on stage crew in a mainstage production. May be repeated.
Pre: Consent
Fall, Spring
GE-11

THEA 107 (1-2) Theatre Activity: Costume
Work on costumes or wardrobe crew in a mainstage production. May be repeated.
Pre: Consent
Fall, Spring
GE-11

THEA 108 (1-2) Theatre Activity: Lighting
Work on lighting crew in a mainstage production. May be repeated.
Pre: Consent
Fall, Spring
GE-11

THEA 109 (1-2) Theatre Activity: Sound
Work on sound crew in a mainstage production. May be repeated.
Pre: Consent
Fall, Spring
GE-11

THEA 110 (3) Fundamentals of Acting
Performance scenes and acting exercises for the beginning theatre major.
Pre: Consent
Fall

THEA 111 (0) Private Voice for the Actor
Private lessons in developing the actor’s singing voice. May be repeated.
Pre: Consent
Fall, Spring

THEA 115 (3) Experiencing Theatre
This course examines the various components of the theatre utilizing cultural and historical perspectives. Students investigate basic principles of design, construction, acting, directing and playwriting. Every student obtains hands on experience in the theatre.
GE-6, GE-11

THEA 110 (3) Introduction to Theatre
Survey of theatre arts; lectures, with lab experience available.
Note: Students may not take both THEA 115 and this class.
Fall, Spring
GE-6

THEA 101 (3) Acting for Everyone
Performance scenes and exercises for the beginner.
Fall, Spring
GE-6

THEA 102 (1-2) Theatre Activity: Acting
Acting in a mainstage or approved production. May be repeated.
Pre: Consent
Fall, Spring
GE-11

THEA 103 (1-2) Theatre Activity: Management
Work on stage or house management, or public relations. May be repeated.
Pre: Consent
Fall, Spring
GE-11

THEA 104 (1-2) Theatre Activity: Dance Captain
Serve as Dance Captain, to assist the Choreographer, for a mainstage or approved production. May be repeated.
Pre: Consent
Fall, Spring

THEA 105 (1-2) Theatre Activity: Stagecraft
Work on stage crew in a mainstage production. May be repeated.
Pre: Consent
Fall, Spring
GE-11

THEA 107 (1-2) Theatre Activity: Costume
Work on costumes or wardrobe crew in a mainstage production. May be repeated.
Pre: Consent
Fall, Spring
GE-11

THEA 108 (1-2) Theatre Activity: Lighting
Work on lighting crew in a mainstage production. May be repeated.
Pre: Consent
Fall, Spring
GE-11

THEA 109 (1-2) Theatre Activity: Sound
Work on sound crew in a mainstage production. May be repeated.
Pre: Consent
Fall, Spring
GE-11

THEA 110 (3) Fundamentals of Acting
Performance scenes and acting exercises for the beginning theatre major.
Pre: Consent
Fall

THEA 111 (0) Private Voice for the Actor
Private lessons in developing the actor’s singing voice. May be repeated.
Pre: Consent
Fall, Spring

THEA 115 (3) Experiencing Theatre
This course examines the various components of the theatre utilizing cultural and historical perspectives. Students investigate basic principles of design, construction, acting, directing and playwriting. Every student obtains hands on experience in the theatre.
GE-6, GE-11

THEA 121 (1) Movement for Theatre
Instructs the student through a series of movement exercises in body alignment, breathing, flexibility, strength and coordination.
Pre: Consent
Fall

THEA 210 (3) Intermediate Acting
The process of character structuring through script analysis and scene work.
Pre: THEA 110 or consent
Fall

THEA 212 (2) Music Skills for Theatre I
A group instruction course covering fundamental music theory and skills applicable to the theatre artist including the study of music notation, style, harmony and literature. Skills learned will include basic keyboarding, sight reading and sight singing music.
Alt-Fall

THEA 213 (2) Music Skills for Theatre II
A continuation of Music Skills for Theatre I, this course will focus on recent developments in the American Musical Theatre while increasing skills learned in the previous class.
Alt-Spring
Pre: THEA 212

THEA 214 (1) Singing for Actor
Study and exercise to prepare actors to sing for the musical theatre with the focus on competence and musicianship.
Pre: Permission of Instructor

THEA 215 (2) Audition Methods
The development of a repertoire of audition pieces to increase the ability to perform with confidence on short notice.
Pre: THEA 110 or consent
Spring

THEA 231 (1) Stage Management
Exploration of all aspects of theatrical stage management activities through specific theoretical and practical study.
Alt-Fall

THEA 235 (3) Fundamentals of Directing
Introduction to the theory and practice of directing for the theatre.
Pre: THEA 100 and THEA 101 or THEA 110
Fall

THEA 240 (3) Basic Design
Introduction to the concepts, process, and practices of theatrical scenic, lighting, and costume design including script analysis and historical overviews.
Pre: THEA 100
Spring

THEA 245 (3) Scene Painting I
Introductory course examining the basics of materials and techniques of scenic painting with a large amount of lab time for experimentation with technique.
Pre: Consent
Variable

THEA 252 (3) Theatre Technology
Fundamental concepts of technical theatre; an overview of basic stagecraft, costuming, lighting, and sound in the contemporary theatre.
Pre: THEA 100
Spring

THEA 255 (3) Stagecraft
Introduction to theory and practice of construction techniques used in the theatre.
Pre: THEA 100
Alt-Fall

THEA 260 (3) Costume Construction
Theory and techniques in stage costume construction.
Pre: THEA 100
Spring
THEA 262 (1) Dance Production: Costumes
Fundamental concepts of costume design and production for the Dance.
Alt-Spring

THEA 265 (2) Stage Makeup
Theory and practical laboratory work in stage makeup applications.
Pre: Consent
Fall

THEA 266 (1) Makeup Module
Exposes K-12 teachers to a practical methodology of applying stage makeup.
Pre: Consent
Fall

THEA 270 (3) Lighting Technology
The study of lighting technology and its effect on lighting design.
Pre: THEA 100
Fall

THEA 272 (1) Dance Production: Lighting
Fundamental concepts of lighting design and production for the Dance.
Alt-Fall

THEA 275 (3) Sound Technology
The study of sound technology and its effect on sound design.
Pre: THEA 100
Spring

THEA 276 (1) Dance Production: Sound
Fundamental concepts of sound design and production for the Dance.
Alt-Spring

THEA 285W (3) Theatre of Diversity
A survey of literature, artists and performances with specific regard to the theatre of diversity including, but not restricted to: Feminist Theatre, Gay and Lesbian Theatre, African-American Theatre, Asian American Theatre, Hispanic Theatre, etc.
ALT-Fall
WI, GE-6, GE-7
Diverse Cultures - Purple

THEA 291 (1-4) Individual Study
Pre: Consent
Fall, Spring

THEA 295 (1-4) Touring Theatre
Work on the actual mounting and performance of a touring theatrical production.
Pre: Consent
Spring

THEA 300 (1-4) Summer Stock
Technical work and/or acting in summer theatre productions. May be repeated.
Pre: Consent
Summer

THEA 301 (1-2) Practicum: Directing
A considerable production responsibility which utilizes skills in script analysis, actor coaching, design coordination and general production management; or assistant directing for a mainstage production. May be repeated.
Pre: Consent
Fall, Spring

THEA 302 (1-2) Practicum: Acting
A considerable production responsibility dealing with the preparation and performance of a major acting role. May be repeated.
Pre: Consent
Fall, Spring

THEA 303 (1-2) Practicum: Theatre Management
Special assignments in stage management, house and/or concessions management, public relations or related areas. May be repeated.
Pre: Consent
Fall, Spring

THEA 304 (1-2) Practicum: Scene Design
Preparation and execution of a major scene design assignment. Requires a design and construction schedule, preliminary and final design concepts, and necessary drafting details. May be repeated.
Pre: Consent
Fall, Spring

THEA 305 (1-2) Practicum: Tech Theatre
A considerable production responsibility dealing with some technical aspects including technical drawings, budget management, or construction techniques. May be repeated.
Pre: Consent
Fall, Spring

THEA 306 (1-2) Practicum: Costume Design
Full and assistant costume design assignments for theatre productions. May be repeated.
Pre: Consent
Fall, Spring

THEA 307 (1-2) Practicum: Costume Construction
The construction of costumes for theatre productions. May be repeated.
Pre: Consent
Fall, Spring

THEA 308 (1-2) Practicum: Light Design
Preparation and execution of a major lighting design assignment. Requires a design with appropriate schedules, supervision of hanging, focusing and cues. May be repeated.
Pre: Consent
Fall, Spring

THEA 309 (1-2) Practicum: Sound
Preparation and execution of a major sound design assignment including all sound effects, reinforcement and amplification. May be repeated.
Pre: Consent
Fall, Spring

THEA 311 (0) Private Voice for the Actor
Continuation of THEA 111. May be repeated.
Pre: THEA 111
Fall, Spring

THEA 315 (1) Careers in Theatre
Introduction to the various career opportunities directly in or appertaining to theatrical arts performance.
Pre: THEA 100
ALT-Fall

THEA 324 (3) Methods and Materials for Teaching Creative Dramatics
Exploration of teaching creative dramatics in the K-12 setting.
Pre: THEA 121
On-Demand

THEA 381W (3) Play Analysis
The study and application of various analytical approaches to play texts in preparation for production.
Pre: THEA 100
Spring
WI

THEA 400 (1) Portfolio Seminar
Exploring the techniques of building a working design/technology portfolio and resume.
Pre: Consent

THEA 410 (3) Musical Theatre Acting I
Introduction to musical theatre performance techniques for the American Musical Theatre actor.
Pre: THEA 210 or consent
Spring
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
<th>Prerequisite(s)</th>
<th>Delivery</th>
</tr>
</thead>
<tbody>
<tr>
<td>THEA 411</td>
<td>Musical Theatre Acting II</td>
<td>Scene studies from the American Musical Theatre, as well as performance techniques for the singing actor.</td>
<td>THEA 210 and consent</td>
<td>ALT-Fall</td>
</tr>
<tr>
<td>THEA 412</td>
<td>Theatre Speech I</td>
<td>Study and exercises in vocal development emphasizing the demands of stage speech.</td>
<td>THEA 210 or consent</td>
<td>Spring</td>
</tr>
<tr>
<td>THEA 413</td>
<td>Theatre Speech II</td>
<td>Study and exercises in vocal development, including the study of the International Phonetic Alphabet.</td>
<td>THEA 210 or consent</td>
<td>Fall</td>
</tr>
<tr>
<td>THEA 414</td>
<td>Stage Dialects I</td>
<td>A study and practice of vocal dialects most often used in performance.</td>
<td>THEA 413</td>
<td>ALT-Fall</td>
</tr>
<tr>
<td>THEA 415</td>
<td>Stage Dialects II</td>
<td>A continuation of Stage Dialects I.</td>
<td>THEA 413</td>
<td>ALT-Fall</td>
</tr>
<tr>
<td>THEA 416</td>
<td>Acting Scene Studies</td>
<td>Advanced scene studies with a focus on analysis and the varied approaches to developing motivations.</td>
<td>THEA 210 or consent</td>
<td>ALT-Spring</td>
</tr>
<tr>
<td>THEA 417</td>
<td>Acting Techniques</td>
<td>The development of individual performance craft and advanced acting methodologies.</td>
<td>THEA 210 or consent</td>
<td>ALT-Fall</td>
</tr>
<tr>
<td>THEA 417W</td>
<td>Acting Techniques</td>
<td>The development of individual performance craft and advanced acting methodologies.</td>
<td>THEA 210 or consent</td>
<td></td>
</tr>
<tr>
<td>THEA 418</td>
<td>Acting Styles</td>
<td>Advanced scene studies in classical and stylized dramatic literature.</td>
<td>THEA 210 or consent</td>
<td>ALT-Spring</td>
</tr>
<tr>
<td>THEA 419</td>
<td>Acting for Radio/TV</td>
<td>Development of performance craft for the media.</td>
<td>THEA 210 and consent</td>
<td>ALT-Spring</td>
</tr>
<tr>
<td>THEA 420</td>
<td>Theatre Pedagogy</td>
<td>Pedagogy of theatre in the K-12 setting. Emphasis will include: national and state standards, assessment practices, lesson planning and curriculum development.</td>
<td>THEA 324</td>
<td>On-Demand</td>
</tr>
<tr>
<td>THEA 425</td>
<td>(1 or 2) Styles of Motion</td>
<td>Specialized training in a variety of physical techniques. May be repeated.</td>
<td>Consent</td>
<td>ALT-Spring</td>
</tr>
<tr>
<td>THEA 426</td>
<td>Stage Combat</td>
<td>An exploration of basic skills involved in unarmed combat and a variety of historical weapons systems with primary emphasis on theatricality and safety.</td>
<td>Consent</td>
<td>Fall</td>
</tr>
<tr>
<td>THEA 430</td>
<td>Theatre Management</td>
<td>Exposes students to the functions of theatre managers through case studies, discussions, practical application and readings.</td>
<td>THEA 235</td>
<td>ALT-Spring</td>
</tr>
<tr>
<td>THEA 431</td>
<td>(1) K-12 Theatre Management</td>
<td>Exposes future teachers to a practical methodology of producing theatre in the K-12 setting.</td>
<td>THEA 424</td>
<td>On-Demand</td>
</tr>
<tr>
<td>THEA 432</td>
<td>Practicum: Choreography</td>
<td>Serve as Choreographer for a mainstage or approved production. May be repeated.</td>
<td>Consent</td>
<td>Fall, Spring</td>
</tr>
<tr>
<td>THEA 433</td>
<td>Practicum: Musical Directing</td>
<td>Serve as Musical Director for a mainstage or approved production. May be repeated.</td>
<td>Consent</td>
<td>Fall, Spring</td>
</tr>
<tr>
<td>THEA 434</td>
<td>Practicum: Dramaturgy</td>
<td>Serve as Dramaturg for a mainstage or approved production. May be repeated.</td>
<td>Consent</td>
<td>Fall, Spring</td>
</tr>
<tr>
<td>THEA 435</td>
<td>Advanced Directing Methods</td>
<td>Advanced studies in script analysis, actor psychology and staging techniques culminating in performance projects with critical analysis.</td>
<td>THEA 235 and consent</td>
<td>Spring</td>
</tr>
<tr>
<td>THEA 440</td>
<td>Scene Design I</td>
<td>Development of techniques and skills in the creation of scenery.</td>
<td>THEA 240 or consent</td>
<td>Fall</td>
</tr>
<tr>
<td>THEA 441</td>
<td>Scene Design II</td>
<td>Refinement of model building and drawing skills in theatrical design.</td>
<td>THEA 440</td>
<td></td>
</tr>
<tr>
<td>THEA 444</td>
<td>Styles and Ornament</td>
<td>A visual appreciation of assorted cultures through the study of their architecture, decoration, furniture, utensils, etc.</td>
<td>Consent</td>
<td>ALT-Spring</td>
</tr>
<tr>
<td>THEA 445</td>
<td>Scene Painting II</td>
<td>Provides information on materials and techniques of scenic painting with a large amount of lab time for experimentation with technique.</td>
<td>THEA 252 or consent</td>
<td>ALT-Fall</td>
</tr>
<tr>
<td>THEA 448</td>
<td>Drawing &amp; Rendering for the Theatre</td>
<td>Exploring compositional organization of the two-dimensional surface by experimenting with a variety of media, materials, forms, approaches and subjects as a means for theatrical communication.</td>
<td>THEA 240</td>
<td>Alt-Spring</td>
</tr>
<tr>
<td>THEA 451</td>
<td>Drafting for the Theatre</td>
<td>Enhances the advanced theatre student’s ability to show complex elements of a theatrical design in a clear manner using accepted theatrical drafting methods.</td>
<td>Consent</td>
<td>ALT-Fall</td>
</tr>
</tbody>
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**THEA 455 (3) Technical Direction**  
Explores all facets of technical direction, construction techniques, and project management.  
Pre: THEA 255  
ALT-Fall

**THEA 456 (3) Advanced Technical Direction**  
Explores advanced facets of technical direction including entertainment engineering and technology currently in use in the field.  
Pre: THEA 455  
ALT-Fall

**THEA 460 (3) Costume Design I**  
Theory and techniques in costume design and execution.  
Pre: THEA 240 or consent  
Fall

**THEA 461 (3) Costume Design II**  
Advanced costume design theory and techniques.  
Pre: THEA 460  
ALT-Spring

**THEA 464 (3) Costume History**  
Survey of costume history from ancient Egypt to 1900.  
Pre: Consent  
ALT-Spring

**THEA 465 (3) Advanced Makeup**  
Practical application of advanced makeup techniques.  
Pre: THEA 265  
ALT-Spring

**THEA 470 (3) Lighting Design I**  
The study of lighting equipment, usage, techniques and stage lighting design.  
Pre: THEA 270  
Spring

**THEA 471 (3) Lighting Design II**  
Solving particular lighting design challenges.  
Pre: THEA 470  
ALT-Fall

**THEA 472 (3) Virtual Lighting**  
Computer realization for virtual lighting design to enhance practical production quality.  
Pre: THEA 470. Permission of Instructor  
ALT-Fall

**THEA 474 (3) Advanced Sound Technology: Digital Audio Systems**  
A study of the concepts behind digital audio and an exploration of their practical uses.  
ALT-Fall  
Pre: THEA 275

**THEA 475 (3) Sound Design I**  
Production and sound effects, electronic sound reinforcement of live performance, choice and operation of sound equipment, as well as basic music styles and terminology.  
Pre: consent  
Fall

**THEA 476 (3) Sound Design II**  
Integrated sound design to support and enhance theatrical production.  
Pre: THEA 475  
ALT-Fall

**THEA 481 (3) Theatre History I**  
Survey of theatrical history from its origins to 1700.  
Pre: THEA 100  
ALT-Spring

**THEA 482 (3) Theatre History II**  
Survey of theatrical history from 1700 to the present.  
Pre: THEA 100  
ALT-Spring

**THEA 483 (3) Musical Theatre History**  
Survey of the history of the American Musical Theatre from its origins to the present.  
Pre: THEA 100 and consent  
ALT-Spring

**THEA 485W (3) Theatre Dramaturgy**  
This class teaches how to access historical information and present it to directors, actors or designers in a way that will help them make informed and practical artistic choices.  
Pre: THEA 100 and consent  
Fall  
WI

**THEA 487W (3) Playwriting**  
Writing the short and long play.  
Pre: THEA 100. Permission of instructor.  
Alt-Spring  
WI

**THEA 490 (1-3) Topics in Theatre**  
Special topics not covered in other classes. May be repeated.  
Pre: THEA 100. Permission of Instructor  
Variable

**THEA 492 (1-3) Theatre Field Studies**  
Pre: Consent

**THEA 497 (1-8) Internship**  
Pre: Consent

**THEA 499 (1-3) Individual Study**  
Pre: Consent

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### TWIN CITIES ENGINEERING

**Twin Cities Engineering**  
(see Integrated Engineering)

*Department of Integrated Engineering*  
*College of Science, Engineering & Technology*  
141 Trafton Science Center N • 507-389-2744  
Website: cset.mnsu.edu/ie

Chair: Rebecca Bates  
Faculty: Robert Sleezer, Jacob Swanson

Location: Normandale Community College, Partnership Center, 9700 France Avenue South, Bloomington, MN

This program provides upper division engineering coursework. Lower-division coursework is typically completed at a community college. Partners for this program include Normandale Community College in Bloomington, MN, Anoka-Ramsey College in Cambridge and Coon Rapids, MN, Century College in White Bear Lake, MN, Inver Hills Community College in Inver Grove Heights, MN, and Saint Paul College in St. Paul, MN.

Admission requires an application to Minnesota State Mankato and the Twin Cities Engineering program. For more information, please see the description at the Integrated Engineering major.
Urban & Regional Studies
College of Social & Behavioral Sciences
Urban & Regional Studies Institute
106 Morris Hall • 507-389-1714
Website: www.mnsu.edu/ursi

Institute Director: Miriam H. Porter
Raymond Asomani-Boateng, Janet Cherrington, Russell Fricano, Beth Wielde Heidelberg

The Urban and Regional Studies Institute is an interdisciplinary degree program oriented toward examining and understanding the broad range of problems and challenges associated with the nation’s cities and regional areas. There are many career opportunities in community development, urban/regional planning, local government, and local government management. Also, the major is excellent preparation for graduate work in the professional fields of planning, management, business, etc.

This national award-winning program includes classroom, research and field experience. In addition to formal course work, students are encouraged to undertake independent study, become involved in community service projects, participate in field studies, and accept internships in local agencies. Students should contact the Urban and Regional Studies Institute for further information.

Admission to Major is granted by the department. Minimum university admission requirements are:
- a minimum of 32 earned semester credit hours.
- a minimum cumulative GPA of 2.00 ("C").
Contact the department for application procedures.

POLICIES/INFORMATION

P/N Grading Policy. The internship must be taken on a P/N basis. All other courses must be taken for grade.

URBAN AND REGIONAL STUDIES BS
Degree completion = 120 credits

Required for Major
URBS 100 Introduction to the City (3)
URBS 110 The City: Design and Architecture (3)
URBS 150 Sustainable Communities (3)
URBS 230 Community Leadership (3)
URBS 401 Foundations in Urban Management & Planning (3)
URBS 402 Urban Analysis (3)
URBS 489 Capstone (3)

Required for Major (Electives, 12 credits)
Select 12 credits from URBS upper division courses, or see advisor for approval. The department strongly recommends an internship (URBS 497).

Required Minor: Yes. Any.

URBAN AND REGIONAL STUDIES MINOR

Minor Core
URBS 150 Sustainable Communities (3)
URBS 230 Community Leadership (3)
URBS 431 Urban Design Principles (3)

Minor Electives
Select 9 credits from URBS upper division courses, or see advisor for approval.

COURSE DESCRIPTIONS

URBS 100 (3) Introduction to the City
A fresh look at the city, with emphasis on the reasons why cities have grown and how people can make cities livable.
Fall, Spring
GE-5, GE-8

URBS 110 (3) The City: Design and Architecture
Appreciation of the city as the highest cultural achievement in design and architecture.
Fall, Spring
GE-6

URBS 150 (3) Sustainable Communities
This course will identify and analyze global social, economic, political and environmental problems impacting community viability and explore the full range of solutions to these problems. The course will view communities as complex, sustainable organisms and bring together the works of the great minds working on sustainability.
Fall, Spring
GE-5, GE-10

URBS 230 (3) Community Leadership
Introduction to community leadership--elected, professional, or voluntary--and the skills and values which support it.
GE-9, GE-11

URBS 230W (3) Community Leadership
Introduction to community leadership--elected, professional, or voluntary--and the skills and values which support it.
Fall, Spring
WI, GE-9, GE-11

URBS 260 (3) Community Development
Introduction to knowledge, values and skills required to strengthen and maintain the capacity of a local group (neighborhood, city or region) to provide for the resident’s needs.

URBS 401 (3) Foundations in Urban Management & Planning
This course is a survey of the local community—the forces which shape it, the significance of a democratic public, and the professional practice of local government service.
Fall, Spring

URBS 402 (3) Urban Analysis
Introduction to skills and techniques used to form questions about urban affairs, to organize and analyze information to answer it, and to present the results of one’s analysis in a professional format.
Spring

URBS 411 (3) Urban Policy & Strategic Analysis
Prepares students to analyze problems, identify alternative solutions and utilize techniques of analysis.

URBS 412 (3) Public Information and Involvement
This course, designed for students preparing for a professional career in local government or public service, focuses on media relations and building citizen involvement through public awareness projects.
Fall

URBS 413 (3) Urban Program Evaluation
Reviews processes and techniques related to evaluation of public programs.

URBS 415 (3) Urban Housing Policy
Public policy and programs that address issues of housing supply, quality, costs, and neighborhood revitalization.
URBS 417 (3) Urban Law
An overview of local government law and local governing powers. In addition, public issues in the legal context will be examined from a management and operational perspective.

URBS 431 (3) Urban Design Principles
A basic working knowledge and vocabulary of urban design concepts and techniques in an applied problem solving context.

URBS 433 (3) Urban Development
Theory and applications of principles of landscape architecture or urban design.

URBS 435 (3) Downtown Revitalization
Examines the problem of central business district deterioration and explores the changing patterns of economic and social mobility with primary focus upon the trends of downtown revitalization currently being employed by the public and private sectors.

URBS 437 (3) Urban Heritage Preservation
Preservation techniques, principles of structural evaluation, adaptive use potentials and options, economic consideration in preservation and the role of legislation.

URBS 438 (3) Historic Preservation: Policy and Field Methods
Historic Preservation: Policy and Field Methods introduces students to the rules and laws of structural historic preservation. The course will investigate the major policy documents, laws, agencies, survey methods, and examine how they are applied in local government preservation. Spring

URBS 450 (3) The Urban Context
Advanced course to explore the interactions of space and social institutions in an urban context.

URBS 451 (3) Nonprofit Sector
Nature of the Third Sector, from a variety of perspectives, and implications for managing both internal and external relations of nonprofit organizations.

URBS 453 (3) Grants Administration
Raising resources for public and nonprofit organizations—from needs assessment through obtaining funding to managing the grant after it is awarded.

URBS 455 (3) Regional & County Development
Regional and county planning content and procedures, including basic research, land use planning, and implementation of regulations.

URBS 457 (3) Economic Development
A survey course covering the concepts, processes, tools and strategies of economic development in local communities. Emphasis is on the “why” and “how” of economic development.

URBS 461 (3) Environmental Planning
Examines and applies the fundamental concepts, techniques and mechanisms for environmental planning at the city, county, and sub-state regional levels. Fall

URBS 471 (3) Urban Transportation
Examines transportation problems of, and solutions for large and medium sized cities. Special emphasis on reducing traffic congestion, improving management of transit systems, and linking transportation and land-use planning.

URBS 481 (1-3) Selected Topics:
Varying topics dealing with emerging trends and contemporary needs facing urban America.

URBS 483 (1-6) Workshop
Varying topics using applied techniques to address community issues.

URBS 485 (1-6) Community-Based Problem Solving
Problem solving in communities and direct involvement into specific areas of study of student interest.
Pre: Consent
Fall, Spring

URBS 489 (3) Capstone Seminar
Assemble and evaluate information and opinions into a coherent position on what makes cities work, and prepare for entry into professional world of work in cities. Spring

URBS 497 (1-12) Internship
Scheduled work assignments, varying in length and content, under the supervision of selected professional sponsors.
Pre: Consent
Fall, Spring

URBS 499 (1-4) Individual Study
Independent study under supervision of an instructor with a research paper or report to be presented.
Pre: Consent
Fall, Spring

URBS 471 (3) Urban Transportation
Examines transportation problems of, and solutions for large and medium sized cities. Special emphasis on reducing traffic congestion, improving management of transit systems, and linking transportation and land-use planning.

World Languages & Cultures

World Languages & Cultures
College of Arts and Humanities
Department of World Languages & Cultures
227 Armstrong Hall • 507-389-2116
Website: www.mnsu.edu/languages

Chair: Gregory Taylor

Although English has become the leading commercial and diplomatic language of the twenty-first century, World Languages and Cultures study will be of increasing importance in the years ahead. As technology continues to conquer the obstacles of time and space, the outlook is for even greater travel, commerce, and cultural exchange between the Upper Midwest and the rest of the world.

Minnesota State Mankato does not offer a degree in World Languages & Cultures per se. Students may, however, pursue BA or BS degrees in French, German, Spanish, Spanish for the Professions or Scandinavian Studies or BS degrees in French, German, or Spanish Education. Chinese, Portuguese, Russian, Latin, and Japanese courses are offered but are not part of any specific academic program. Please see individual sections of this catalog for program details and course offerings in specific languages or contact the Office of the Registrar for information.

COURSE DESCRIPTIONS

DAK 101 (4) Elementary Dakota I
An introduction, within cultural context, to the basic skills of listening, speaking, reading and writing in the Dakota language.
Fall
GE-8

DAK 102 (4) Elementary Dakota I
An introduction, within a cultural context, to the basic skills of listening, speaking, reading and writing in the Dakota language.
Spring
GE-8
WLC 106 (5) Elementary Mandarin I
Beginning Mandarin I is a practical introductory language course with simple, graded activities on essential daily topics. Students will begin to work orally & with the Chinese writing systems while developing early listening and reading skills. Fall

WLC 107 (5) Elementary Mandarin II
Beginning Mandarin II is a practical introductory language course with simple, graded activities on essential daily topics. Students will continue to work orally & with the Chinese writing systems while developing early listening and reading skills. Spring

WLC 310 (4) Portuguese for Spanish Speakers
The course is designed to help advanced Spanish students identify similarities and differences between Spanish and Portuguese and begin development of Portuguese productive language skills and cultural competency through comparative practice. Pre: SPAN 201W. Completion of one 300 level Spanish course or equivalent intermediate-midproficiency level of Spanish for admission to the course. See department for language proficiency evaluation information or instructor permission. Variable

WLC 398 (0) Co-Operative Training WLC
Curricular practical training for World Languages and Cultures is a full-time practical experience in a professional setting in which more than one language is used. The experience is designed to allow students to improve overall communicative proficiency in languages and address business practices associated with the student’s academic field of expertise. The Co-Op experience covers a minimum of two consecutive academic terms and requires that students register for a minimum of two consecutive academic terms following the experience. On-Demand

WLC 460 (3) Methods of Teaching Modern Languages
Introduction to theory and practice of modern language teaching, including lessons in listening, speaking, reading, writing, vocabulary, and culture. Includes testing, program design, lesson planning, and use of technology. Pre: Students must demonstrate sufficient language competence in the target language so as to be able to teach courses exclusively in the target language. See content faculty for evaluation. Fall

WLC 461 (1) Applied Modern Language Teaching Methods
A field experience including placement in the secondary level school setting for students earning licensure in modern language teaching. Practicum students work with middle or high school students of French, German, or Spanish. Take concurrently with or following WLC 460.

WLC 462 (3) Foreign Languages in the Elementary School (FLES) Methods
Introduction to theory and practice of modern language teaching for children grades K-6, including oral language development, second language literacy development, content-based language instruction, and techniques for language immersion programs. Pre: Students must demonstrate sufficient language competence in the target language so as to be able to teach courses exclusively in the target language. See content faculty for evaluation. Spring

WLC 463 (1) Applied FLES Methods
A field experience including placement in the elementary level school setting for students earning licensure in modern language teaching. Practicum students work with elementary school students in French, German, or Spanish. Take concurrently with or following WLC 462.

WLC 465 (1-3) Workshop in Modern Language Education
Topics in modern language education. May be repeated for credit. Variable

WLC 499 (1-4) Individual Study
Special topics in language education. May be repeated for credit. Fall, Spring
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