MINNESOTA STATE UNIVERSITY
MOORHEAD

# Undergraduate Bulletin

2023 - 2024

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# 2023-2024 Undergraduate Bulletin

Minnesota State University, Moorhead
1104 Seventh Avenue South
Moorhead, MN 56563
Phone: 218.477.2134
Fax: 218.477.2482

www.mnstate.edu

A member of the Minnesota State system and an Affirmative Action/Equal Opportunity University.

**Welcome to the 2023-2024 Minnesota State University Moorhead's Undergraduate Bulletin**
The Bulletin contains information about academic programs and student services offered by Minnesota State University Moorhead. It also contains general University and specific academic policies and degree requirements. Every effort has been made to make the bulletin 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 bulletin do not constitute a contract between the student and university.

The information in the bulletin applies to all graduate students at the university. It is important for students to be familiar with all the information that applies to them, including policies and procedures related to registration, academic progress and degree requirements. Students are strongly encouraged, and are required, to consult their advisers at least once each semester to ensure they are completing requirements applicable to their degree and major programs.

This bulletin is published online only.

## Introduction

**Mission**
Minnesota State University Moorhead is a caring community promising all students the opportunity to discover their passions, the rigor to develop intellectually and the versatility to shape a changing world.

**Vision**
Minnesota State University will be...

- A leader in student success
- A campus that reflects the world in which our graduates live and work
- A University that provides an education of lifelong relevance
- A place of transformation where students become graduates who are progressive leaders in their professions and their communities

**What Makes MSUM Special?**
Faculty, student and staff members of the academic community have given a great deal of thought to the values and purposes that underlie the University's **mission and vision**. We have refined and focused these principles into statements to guide our daily efforts to foster student success and serve the regional and global communities.

These cornerstones of our mission and vision define what makes us special.

**Purpose***(Why do we do what we do?)*
The simplest and most idealistic answer is that our purpose is to transform the world by transforming lives.

**Our Core Values***(How do we behave?)*

- Grit
- Humility
- Heart

**Aspirational Value***(We commit to making this as pervasive as our core values)*

- Diversity and inclusion of people and ideas

**"Permission to Play" Values** *(These are the expectations of membership in our academic community)*

- Integrity and mutual respect in our behavior and interactions

**Strategic Anchors***(How will we succeed?)*
We will succeed by:

- Focusing relentlessly on student achievement and students' return on their investment;
- Embedding and supporting diversity in every facet of the university; and
- Ensuring that MSUM is indispensable to the social, cultural, and economic advancement of Moorhead and the surrounding region.

**Overview**
Minnesota State University Moorhead is a welcoming educational community that offers rigorous courses of study and places high expectations upon its students. Our strong commitment to faculty-mentored undergraduate research and intellectual growth provides students with continual opportunities for personal and professional achievement. MSUM fosters an environment that encourages students to become versatile, thoughtful, innovative, and engaged leaders who contribute to their professions and their communities.

MSUM values diversity and mutual respect and strives to instill these ideals throughout the institution. MSUM honors its heritage as a respected, student-focused, public university and enhances our students' lives at the same time that it contributes to the community and the region.

MSUM offers graduate and professional programs that contribute to the state and region through increased collaboration with local and state business, industry, and human services to assure optimal preparation of graduates.

**MSUM at a Glance**
Minnesota State University Moorhead, with an enrollment of more than 4,600 full and part-time students, offers 73 undergraduate majors with 55 emphases, 15 graduate degree programs, and 40 certificate programs. Included in our majors are 26 areas of teacher licensure preparation. Our professional programs are grounded in the liberal arts, designed to provide a broad base of knowledge and cultural themes. As a part of the higher education system established by the State of Minnesota, the University provides the advantages of a quality education at the lower costs made possible by the support of Minnesota's citizens.

**History of Minnesota State University Moorhead**
Minnesota State University Moorhead's institutional life began in 1887 when, two years after a bill calling for its establishment was approved by the Minnesota legislature, funds were appropriated for the construction of campus buildings. Moorhead Normal School was built on land deeded to the city by the bill's author, S. G. Comstock, a former Clay County Attorney and, later, an executive with James J. Hill's Great Northern Railroad. The campus opened for classes under its first president, Livingston Lord, in August of 1888.

Moorhead Normal School was Minnesota's fourth such institution, charged with the education of those who would teach in the area's rural schoolhouses. Students graduated from these normal schools after two years, with a license to teach grades K (or 1) through 8. By the second decade of the 1900s, the demand for better-educated teachers, together with the increased numbers of students attending high school, was the motive force that prompted the development of a four-year college curriculum. This progress was marked by the school's first name change, to Moorhead State Teachers College, in April of 1921.

In late April-early May 1957, the Minnesota state legislature approved another name change, bringing into existence Moorhead State College. This change reflected the institution's "increasing diversity and breadth of purpose" (graduate programs began in 1953), and also came at a time when the campus was going through something of a construction "boomlet." Over the next 18 years, the campus added 11 new buildings and numerous new programs. The 18 years of Moorhead State College also saw the establishment of that unique educational resource, the Tri-College University.

On August 1, 1975, a ceremony was held on campus to mark the renaming of the college to Moorhead State University. All other Minnesota State Colleges were also transformed into state universities at the same time. The time of this change was surrounded by the continued growth of the University student body, a growth mirrored by the number of majors offered, which rose to more than 90 (the University currently offers more than 140 majors, including emphases and options).

In 1998, the Minnesota State Colleges and Universities Board of Trustees approved a policy authorizing the seven state universities to change their names if they wished to do so. Accordingly, after consultation with students, faculty, staff, and alumni, the campus's fifth name change to Minnesota State University Moorhead was approved by the Board of Trustees and became effective July 1, 2000.

**The Campus**
Most of the 28 major buildings on the 119-acre campus have been constructed since 1957, including Langseth Hall and the Wellness Center. Other campus buildings include six residence halls and one apartment facility, the Livingston Lord Library, the Comstock Memorial (Student) Union, Kise Commons food service, the Regional Science Center, Hendrix Counseling, Security/Police Substation, 11 classroom buildings, the Alex Nemzek Hall complex for men's and women's physical education, health and athletics, and Owens Hall administration building.

**The Faculty**
There are more than 300 members of Minnesota State University Moorhead's instructional faculty. Over 72 percent of the faculty holds the highest degree in their fields. Professors teach 99 percent of classes and are advisors and mentors. A student-

faculty ratio of 18-to-1 encourages undergraduates to participate in faculty-mentored research and creative projects, and the average class size is 23 students.

**The Fargo-Moorhead Community**
Moorhead, Minnesota and Fargo, North Dakota are education-minded communities with Minnesota State University Moorhead, Minnesota State Community and Technical College, and Concordia College on one side of the Red River, North Dakota State University on the other. The two cities boast a progressive business community and numerous cultural and arts opportunities. Minnesota State University Moorhead regularly offers a Performing Arts Series, monthly art exhibits, and a number of dramatic and musical programs.

Fargo-Moorhead is among the largest metropolitan centers between Minneapolis and Seattle. The character of this metropolitan community of more than 240,000 and growing is also determined by its rural traditions. Situated in the rich farming land of the Red River Valley, Fargo-Moorhead is the hub for wholesale and retail trade, communications, transportation, industry, and medical care in the Upper Midwest. It is a thriving, close-knit community, consistently ranked one of the safest and best communities in which to live.

## Academic Colleges & Departments

Minnesota State University is comprised of the following academic colleges and departments.

College of Arts and Humanities
Interim Dean: Dr. Kyja Kristjansson-Nelson
Departments:

- English
- Entertainment Industries & Technology
- History, Languages, & Humanities
- School of Art
- School of Media Arts & Design
- School of Performing Arts

College of Business, Analytics & Communication
Dean: Dr. Peter Sherman
Departments:

- Computer Science & Information Systems
- Economics, Law & Politics
- Mathematics
- Paseka School of Business
- Professional Management
- School of Communication & Journalism

College of Education and Human Services
Dean: Dr. Ok-Hee Lee
Departments:

- School of Teaching & Learning
- Social Work
- Sociology & Criminal Justice
- Speech Language Hearing Sciences

College of Science, Health & the Environment
Dean: Dr. Lisa Nawrot
Departments:

- Anthropology & Earth Science
- Biosciences
- Chemistry & Biochemistry
- Health & Human Performance
- Physics & Astronomy
- Psychology
- School of Nursing & Healthcare Leadership

## Accreditation / Certification

**Undergraduate Programs**

Minnesota State University Moorhead is accredited by the Higher Learning Commission, to offer undergraduate four-year college programs leading to Baccalaureate degrees.

**Graduate Programs**

Minnesota State University Moorhead is accredited by the Higher Learning Commission at the Doctoral, Specialist, and Master's degree levels.

***American Chemical Society (ACS)***
Minnesota State University Moorhead's Chemistry Department is on the approved list of the American Chemical Society.

***American Council of Construction Education (ACCE)***
Minnesota State University Moorhead's degree in Construction Management in the Department of Professional Management is accredited by the American Council for Construction Education (ACCE).

***American Speech-Language-Hearing Association (ASHA)***
The Master of Science (M.S.) in Speech-Language Pathology (residential) at Minnesota State University Moorhead is accredited by the Council on Academic Accreditation in Audiology and Speech-Language Pathology (CAA) of the American Speech-Language-Hearing Association, 2200 Research Boulevard #310, Rockville, Maryland 20850, 800-498-2071 or 301-296-5700.

***Association of Technology, Management and Applied Engineering (ATMAE)***
Minnesota State University Moorhead's program in Operations Management in the Department of Professional Management is accredited by the Association of Technology, Management and Applied Engineering.

***Association to Advance Collegiate Schools of Business International (AACSB)***
Minnesota State University Moorhead's Paseka School of Business is accredited by the Association to Advance Collegiate Schools of Business International (AACSB).

***Association of University Programs in Health Administration (AUPHA)***
Minnesota State University Moorhead's Bachelor of Science degree in Health Services Administration is a member of the Association of University Programs in Health Administration.

***Commission on Accreditation of Athletic Training Education (CAATE)***
Minnesota State University's Master of Science in Athletic Training is seeking initial accreditation through the Commission on Accreditation of Athletic Training Education. 6850 Austin Center Blvd., Suite 100, Austin, TX 78731-3101.

***Commission on Accreditation of Healthcare Management Education (CAHME)***
The Master of Healthcare Administration program is fully accredited by CAHME (Commission on Accreditation of Healthcare Management Education).

***Commission on Collegiate Nursing Education (CCNE)***
The baccalaureate degree in nursing and the master's degree in nursing at Minnesota State University Moorhead are accredited by the Commission on Collegiate Nursing Education, 655 K Street, NW, Suite 750, Washington, DC 20001, Phone: (202) 887-6791 (http://www.ccneaccreditation.org).

***Council for the Accreditation of Education Preparation***
Minnesota State University Moorhead meets rigorous national standards for educator preparation set by the Council for the Accreditation of Educator Preparation (CAEP) as a five-year teacher education institution offering the degrees of Bachelor of Science, Master of Science, and Education Specialist. Questions on accreditation contact: 1140 19th St NW Ste 400, Washington, DC 20036-6610, Phone: 202.223.0077.

***Council for the Accreditation of Counseling and Related Educational Programs (CACREP)***
Minnesota State University Moorhead's graduate program in Counseling has specialized accreditation from the Council for the Accreditation of Counseling and Related Educational Programs (CACREP). The specialized accreditation is granted by CACREP which is an accrediting body recognized by the Council for Higher Education Accreditation. The program offers two CACREP accredited emphases: Clinical Mental Health Counseling and School Counseling (K-12).

***Council on Social Work Education (CSWE)***
Minnesota State University Moorhead is accredited by the Council on Social Work Education to offer a Bachelor of Social Work degree.

***Minnesota Board of Executives for Long Term Services and Supports (BELTSS)***

The Minnesota Board of Executives for Long Term Services and Supports accredits Minnesota State University Moorhead Long Term Care Administration program as a Center of Excellence for Long Term Care Administrators.

***Minnesota Board of Peace Officer Standards and Training (POST)***
Minnesota State University Moorhead is certified to educate police officers in the State of Minnesota.

***Minnesota Board of School Administrators (BOSA)***
Minnesota State University Moorhead's Educational Leadership programs are approved by the MN Board of School Administrators.

***Minnesota Board of Teaching/Professional Educator Licensing and Standards Board (PELSB)***
Minnesota State University Moorhead's teacher licensure/endorsement programs are approved by the MN Board of Teaching.

***National Association for the Education of Young Children (NAEYC)***
The Minnesota State University Moorhead's Early Childhood Center has been accredited under the National Association for the Education of Young Children new accreditation standards since June 2008. We strive to educate children under this high mark of excellence. NAEYC Accreditation of Programs for Young Children is the mark of quality in early childhood education, with thousands of programs currently accredited nationwide.

***National Association of School Psychologists (NASP)***
Minnesota State University Moorhead's graduate program in school psychology is approved and meets training standards established by the National Association of School Psychologists (NASP). MSUM has been NASP/NCATE approved for 30 years. MSUM was one of the first programs in the country to receive NASP/NCATE approval. NASP is an affiliate organization of the National Council for Accreditation of Teacher Education.

***National Association of Schools of Art and Design (NASAD)***
Minnesota State University Moorhead is an accredited institutional member of the National Association of Schools of Art and Design. MSUM offers the Bachelor of Arts and Bachelor of Fine Arts degrees. It is one of seven NASAD accredited institutions in Minnesota.

***National Association of Schools of Music (NASM)***
Minnesota State University Moorhead is an accredited institutional member of the National Association of Schools of Music. MSUM offers Bachelor of Arts and Bachelor of Science degrees in music.

***National Council for State Authorization Reciprocity Agreements***
Minnesota State University Moorhead has been approved by the state of Minnesota to participate in the National Council for State Authorization Reciprocity Agreements. NC-SARA is a voluntary, regional approach to state oversight of postsecondary distance education.

***North Dakota Board of Examiners for Nursing Home Administrators***
Minnesota State University Moorhead's Long Term Care Administration degree is accredited by the North Dakota Board of Examiners for Nursing Home Administrators.

***Project Management Institute (PMI) Global Accreditation Center for Project Management Education Programs (GAC)***
Minnesota State University Moorhead's Bachelor of Science degree in Project Management is accredited by the PMI GAC for Project Management Education Programs.

This listing can also be found on the MSUM website at https://www.mnstate.edu/about/accreditation/.

## Access to Information

Minnesota State University Moorhead makes available or distributes the following information to all students, employees, prospective students and prospective employees:

**The Bulletin**
It is our intention to provide resources relevant to

the academic, extracurricular, and social lives of students.

Every effort has been made to ensure the accuracy of the material contained within this catalog as of the date of publication. However, all policies, procedures, academic schedules, program information, and fees are subject to change at any time by appropriate action of the faculty, the MSUM administration, the Minnesota State Colleges and Universities Board of Trustees or the Minnesota Legislature without prior notification. The provisions of this catalog do not constitute a contract between the student and MSUM. The information in this catalog is for use as an academic planning tool and is subject to change at any time.

Upon printing of this catalog, all previous issues are revoked.

**Academic Policies and Procedures**
The University's academic policies may also be found in the Faculty Guide to Resources and Policies and Student Handbook. Information on academic policies and procedures may be obtained at the offices of Academic Affairs, Student Affairs, Admissions, Registrar, Scholarship and Financial Aid, and Academic Support Center. The University Policy website can be found HERE.

**Emergency Cancellation**
Classes/programs are subject to cancellation or changes in the event of inclement weather or an emergency. MSUM will seek to continue instruction through alternate means if they are available to meet the situation in the event of prolonged closure. See University Policy page for more information.

**Non-Discrimination Statement**
Minnesota State University Moorhead is committed to a policy of equal opportunity and nondiscrimination in employment & education and is a member of the Minnesota State Colleges and Universities system. 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, gender identity, gender expression, or membership or activity in a local commission as defined by law. Inquiries regarding compliance should be referred to the Designated Officer: Director of Student Conduct & Resolution, Flora Frick 153C, 218.477.2174 (Voice). This information will be made available in alternate format, such as Braille, large print or audio cassette tape, upon request by contacting Accessibility Resources at 218-477-4318 (Voice); 218-477-2420 (FAX) or 1-800-627-3529 (MRS/TTY).

**Family Educational Rights and Privacy Act (FERPA)**
The Family Educational Rights and Privacy Act (FERPA) affords students certain rights with respect to their education records. They are:

- **The right to inspect and review the student's education records within 10 business days of the day MSUM receives a request for access.** Students should submit to the Registrar, Dean, head of the academic department, or other appropriate official, written requests that identify the record(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. MSUM must provide a student copies if the student agrees to pay any applicable copy costs.
- **The right to request an amendment to the student's education records which the student believes are inaccurate, misleading, or otherwise in violation of the student's privacy rights under FERPA.** Students may ask MSUM to amend a record by writing the university official responsible for the record. The student must clearly identify the part of

the record they want changed and specify why it is inaccurate or misleading. MSUM will notify the student in writing of the decision and advise the student of their right to a hearing if the request was denied. Additional information regarding the hearing procedures will be provided to the student at that time.

- **The right to a written consent to disclosures of personally identifiable information contained in the student's education records, except to the extent that FERPA authorizes disclosure without consent.** MSUM discloses education records without a student's prior written consent under the FERPA exception for disclosure to school officials with legitimate educational interests. A school official is a person employed by MSUM in an administrative, supervisory, academic or research, or support staff position (including law enforcement unit personnel and health staff); a person or company with whom MSUM has contracted to provide a service (such as an attorney, auditor, or collection agent); a person serving on the Board of Trustees; representatives of Minnesota State, including the Chancellor, Chancellor's staff; or a student serving on an official committee, such as a disciplinary or grievance committee, or assisting another 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 responsibilities. Upon request, MSUM may disclose education records without consent to officials of another school in which a student is enrolled or intends to enroll.
- **The right to file a complaint with the U.S. Department of Education concerning alleged failures by MSUM to comply with the requirements of FERPA.** The name and address of the office that administers FERPA is the Family Policy Compliance Office, U.S. Department of Education, 400 Maryland Ave. S.W., Washington, DC, 20202.

**MSUM may disclose directory information of students. Directory information includes:**

- Name, local and permanent (hometown) address
- Phone numbers
- Major and minor fields of study
- Class level
- Dates of enrollment
- Full-time/part-time status
- Awards and honors (including Dean's list)
- Degree(s) conferred (including dates)
- Previous educational institutions and dates attended
- Past and present participation in officially recognized sports and activities
- Height and weight of athletes

**MSUM designates the following information as limited directory information:**

- Student Star ID number and technical ID number
- Electronic mail addresses (email addresses)
- Photographs taken and maintained by MSUM for various purposes

Accordingly, this information will not be provided to external parties unless the parties are requesting the information to fulfill obligations to MSUM. Use and disclosure of this information shall be limited to publication on websites hosted by, on behalf of, or for the benefit of MSUM, including the online directory and those officials within MSUM who have access, consistent with FERPA, to such information.

Student email addresses and Star ID numbers are defined as limited directory data for enterprise technology related purposes internal to the Minnesota State Colleges and Universities System that are approved by system office IT, including, but not limited to, inclusion of email addresses and

Star ID numbers in a directory accessible to Minnesota State students and employees.

Additionally, the following information is defined as limited directory data for purposes of sharing with the student association representing MSUM students so the association can communicate with their members.

- Student name
- Email address
- Student change code (NEW/RTN/DROP)

Students may refuse to permit the disclosure of directory information if they notify MSUM's Registrar in writing they do not want such information disclosed.

**Financial Aid**
The purpose of financial aid is to assist students with college-related expenses. Financial aid and scholarship information is available at the Office of Scholarship and Financial Aid and their webpage.

**Veterans Benefits & Transition Act of 2018**
Minnesota State University Moorhead complies with Minnesota Statute 197.775 which exceeds all criteria of Title 38 United States Code Section 3679(e).

**Student Right to Know Report**
The purpose of this information is to disclose annual student completion and graduation rates, including graduation rates for student athletes. This report is available from the Office of Institutional Effectiveness and can be found HERE.

**Student Alcohol and Other Drug Policy**

**General Philosophy Statement**
Minnesota State University Moorhead recognizes that the misuse of alcohol and other drugs is a serious problem in our society and our community. This University seeks to create a campus environment which promotes healthy and respon-sible living that is conducive to the intellectual and personal development of students. The University is committed to establishing and enforcing clear campus policies regarding the use of alcohol and other drugs.

Minnesota State University Moorhead complies with and supports the Minnesota State Colleges and University Board of Trustees policy governing alcohol and other drugs on campus, the Drug Free Schools and Community Act, the Drug Free Workplace Act, the Campus Security Act and Minnesota State law. Refer to the Student Handbook for a detailed version of the policy.

**Drug Free Workplace and Schools**
Minnesota State University Moorhead provides information regarding University policies for alcohol and drug use on the campus in the class schedule and the Annual Campus Crime Report. This information is provided in compliance with the Drug Free Workplace Act of 1988 and the Drug Free Schools and Communities Act Amendments of 1989. The report includes:

- campus policies regarding alcohol and drug use
- campus sanctions for possession/consumption of alcohol or illicit drugs
- legal penalties for possession/consumption of alcohol or illicit drugs
- health risks associated with use of illicit drugs and alcohol

**Equity in Athletics Disclosure Act Report**
The purpose of this information is to disclose athletic participation rates and financial data related to athletics. This report is available at the following EADA link HERE.

**Annual Crime Report**
MSUM's Annual Campus Crime Report is available online HERE.

The Report contains

- Statistics for previous years of crimes reported on campus; in buildings or property owned or controlled by the University; and on public property within, or immediately adjacent to, the campus and reported to the University and/or the

Clay County Sheriff's Department or the Moorhead Police Department.
- Crime prevention tips and campus safety programs.
- Policies and procedures concerning safety and security on the campus of Minnesota State University Moorhead including information required by the Student Right To Know, the Jacob Wetterling Act, Megan's Law, the Violent Crime and Control Law Enforcement Act of 1994, and the Drug Free Schools and Campuses Act.

If you are unable to access this report and wish a printed copy, or have other concerns about the report, please contact the Public Safety Office at (218) 477-2449.

## Resources and Services

**Academic Success Center**
The Academic Success Center fosters student success and retention by providing a centralized location of resources for students, staff and faculty and integrated academic support services.

**Accessibility Resources**
The MSUM Accessibility Resources Office has a commitment to ensure that students with documented physical, sensory, psychological or learning disabilities have equal access to programs and services.

**Athletics and Recreation**
Provides information on Dragon Athletics, Club Sports, Intramurals, and other recreational activities on campus.

**Bookstore**
The MSUM Bookstore is your one stop for official MSUM gear, textbooks, supplies, computers and software and gift items.

**Business Services**
The MSUM Business Services Office is responsible for university business operations including student tuition and fees billing, deposits, and collections and faculty, staff, and student payroll.

**Career Development Center**
The MSUM Career Development Center supports students in discovering their passions by providing programs, education, services and support throughout their journey from exploring student to prepared professional.

**Center for Engaged Learning**
The MSUM Center for Engaged Learning is home to four offices that create opportunities for experiential learning and engagement between students, faculty and our community.

**Center for Global Engagement**
The Center for Global Engagement serves the MSUM international student population from admission to registration and provides programming for the students throughout the academic year.

**Comstock Memorial Union - Student Activities**
The Comstock Memorial Union is an innovative, student-centered organization and facility. The CMU delivers valued services and programs that enhance campus life and inspire University involvement and commitment.

**Counseling Services**
Counseling Services provides a confidential setting in which students may explore concerns of a personal nature. They offer individual and group counseling for students free of charge and ADHD assessment services for a small fee. The staff Navigator will work with students to find convenient, affordable healthcare and pharmacy services in the nearby community, as well as transportation options to get there. Information about immunizations can be found on their website.

**Dean of Students Office**
The Dean of Students Office handles matters related to student life, student conduct & resolution Office and Title IX. The goal of the office is to maintain a university environment that is

conducive to the academic success of all students, to protect the rights of all members of the university community, and to provide a disciplinary process in which participants experience personal growth and appreciation for the responsibilities of living in a community.

**Diversity and Inclusion Office**
The MSUM Office of Diversity & Inclusion offers four cultural and identity centers open to all students, faculty, staff, and members of the community. Through a variety of programming and specialized resources, our centers help build a campus community that is diverse, inclusive, globally aware and just.

**Dragon Cards**
The Dragon Card is required as your ID for using University facilities, participating in University sponsored events, acquiring non-directory student academic information or documents from academic offices and qualifying for University discount opportunities. They are also used for meal plans, Dragon Dollars, checking out library materials, printing, and banking.

**Dragon Jobs**
The Dragon Jobs is a one-stop resource for student employment. It connects students with employers by sharing job postings and internship listings.

**Early Education Center**
The mission of the Early Education Center is to provide high quality care and developmentally appropriate educational and social opportunities for university students' children who are between 16 months and 6 years.

**Housing and Dining Services**
Housing and Residential Life strives to provide a comfortable and safe environment that fosters community, personal growth and academic success. This link will provide information on Residence Halls, Apartments, Learning Communities and Dining Services.

**Instructional Technology-Office of Online Learning**
The Instructional Technology team enables and enhances student learning by providing instructors with support and resources for using technology in the development of customized learning environments.

**Livingston Lord Library**
The Livingston Lord Library supports academic and cultural experiences of students, faculty, and citizens of this region and encourages their active, life-long learning. The Library acquires and organizes resources and provides the services that sustain research, support curricula, teach critical thinking, advance information literacy skills, encourage reading, advocate intellectual freedom and enhance thoughtful, informed citizenship.

**MSUM Foundation**
The MSUM Foundation exists to secure, receive, manage, administer, and disburse private funds for MSUM; to promote and advocate positive relationships with the alumni of MSUM; and to enhance MSUM in every way.

**Planetarium**
The MSUM planetarium offers a variety of multimedia presentations that awe, amaze, entertain and educate viewers of all ages. Tour the planets and known universe through a night sky simulation that delivers spectacular imagery through a dynamic and total immersion experience. The planetarium uses the premier Elumenati projector and Uniview scientific software used by the most prestigious planetariums in the country. The planetarium comfortably seats 62, and serves 10,000 visitors annually.

**Public Safety**
The Public Safety Office is committed to providing the highest quality services to the MSUM community in a professional, respectful, fair and compassionate manner. They are committed to the people, traditions and diversity on our campus and will work to create a safe environment where all can live, work and pursue academic success.

Parking information can be found on the Public Safety website.

**Regional Science Center**
The Regional Science Center is a program of MSUM. They provide programming in: PK-12 science and environmental education; PK-12 teacher education; college pre-service environmental teacher education; college field and research opportunities in observational astronomy, field biology and geology; and astronomy and natural history programs for the general public. They work closely with the local school districts, the Tri-College Universities, the Minnesota Department of Natural Resources, and area businesses, as well as state and national science and environmental organizations.

**Registrar's Office**
The MSUM Registrar's Office offers a wide variety of support services and provides information regarding academic policies and procedures to faculty, staff and students. The office provides information on registration for classes and enrollment, evaluation of transfer and placement exam credit, tracking of degree progress, transcript and diploma services, and commencement.

**Russell and Ann Gerdin Wellness Center**
The Wellness Center provides an opportunity for an active and healthy lifestyle to become a focus of our campus culture.

**Speech and Hearing Clinic**
The Speech and Hearing Clinic offers a complete range of speech, language and hearing services to people of all ages. Evaluations and screenings are conducted each week by appointment. Therapy is then tailored to individual needs.

**Veterans Resource Center**
The Veterans Office provides counseling, GI Bill certifications, and tutorial assistance, and is concerned with recruiting veterans and veterans' dependents.

**University Writing Support Center**
The University Writing Support Center is a writing resource center for MSUM students. Its mission is to assist students in improving their writing proficiency and independence during the various stages of their writing assignments; to provide a supportive environment where writers and readers work efficiently one-to-one; and to train tutors to become effective readers of and responders to texts from various disciplines.

**For information on Student Life, click on the following link.**

Student Life

## Admission Information

Admissions

## Financial Information

**Business Services**
Tuition and fees are set by the Board of Trustees of the Minnesota State Colleges and Universities System and are subject to change without notice. Click on the link for information on Tuition and Fees, Payment Dates, Payment Plans, Refunds and Reciprocity.

## Financial Aid

For financial aid information including loan, scholarships, grants and employment opportunities please refer to:

Scholarship and Financial Aid

## Additional Educational Opportunities

**Tri-College University**
Tri-College University (TCU) is a consortium which includes North Dakota State University, Concordia College, Minnesota State University Moorhead, North Dakota State College of Science, and Minnesota State Community & Technical College. Students at the five schools may benefit from what each school offers individually and cooperatively through the consortium.

Information concerning the tri-college agreement, policies and procedures may be found HERE.

**Reserve Officers Training Corps (ROTC)**

**Air Force ROTC/Aerospace Studies**
The Air Force Reserve Officer's Training Corps (AFROTC) program is an educational and training

program designed to give men and women the opportunity to become Air Force officers while completing an undergraduate or graduate degree. In order to receive a commission, Air Force ROTC students must complete all requirements for a degree in accordance with University rules and regulations, as well as complete a variety of courses specified by the Air Force.

**Program Description:** The Aerospace Studies curriculum is divided into two courses of instruction: the General Military Course (GMC), which parallels the freshman and sophomore academic years, and the Professional Officer Course (POC), which parallels the junior and senior academic years. Students in the four-year program normally attend two weeks of field training at Maxwell AFB, AL during the summer between their sophomore and junior years.

**Scholarships:** Air Force ROTC can help you to overcome the financial hardships associated with college, and when you complete your degree, you have a guaranteed career after school. AFROTC college scholarships are awarded to the best-qualified students and range in length from one to five years. These grants cover the cadet's tuition, incidental lab fees and most textbooks. In addition, cadets receive a tiered monthly allowance. Incentive scholarships are also available for students not already on scholarship.

**Contact Information:** If you are interested in the AFROTC program through North Dakota State University, see the Registrar's Office for information on Tri-College registration. You may also contact the department of Aerospace Studies at NDSU at 701-231-8186 or visit www.ndsu.edu/afrotc/for more information.

**Army ROTC/Military Studies**

The Army Reserve Officers' Training Corps (Army ROTC) prepares and commissions officers for the Active Army, Army National Guard, and the Army Reserves. ROTC is open to male and female students from Concordia College, North Dakota State University, and Minnesota State University Moorhead through the Tri-College program. Cadets must complete all degree requirements of their chosen major, in accordance with university rules and regulations, and complete required ROTC courses prior to commissioning as a Second Lieutenant. ROTC students also attend physical training and a hands-on leadership lab.

**Program Description:** The Army ROTC program consists of a two-year basic course (freshman and sophomore year) and a two-year advanced course (junior and senior year). During the basic course, there is no military obligation for non-contracted cadets and a student may withdraw at any time. Students, who have Active Duty military experience, are currently a member of the Army Reserve/National Guard, complete the Leader's Training Course, or have taken Junior ROTC may receive credit for the Basic Course. Eligible students are allowed to enter the advanced course and must agree to complete ROTC to commission as a Second Lieutenant. Advanced Course students will also complete the 29-day Leader Development and Assessment Course (LDAC) between their junior and senior years.

**Scholarships:** Two, three, and four year scholarships are available, which provide for payment of tuition and fees. Students receive $600 per semester for books and equipment, and an allowance of $350 to $500 per month for each year the scholarship is in effect. Generally, four-year scholarships are awarded to high school students who wish to compete during their senior year for a scholarship, but college freshmen also have been awarded this highly desirable scholarship.

**Service Commitment:** Students who decide to commission on Active Duty have an eight year service commitment after graduation; four years serving on Active Duty and the option of serving the remaining four years on Active Duty, Army National Guard, Army Reserve, or the Individual Ready Reserve. Army National Guard officers have an eight year commitment; six years in the National Guard with the option of serving the remaining two years in the Army National Guard or the Individual Ready Reserve. Army Reserve officers have an eight year service commitment after graduation.

**Contact Information:** For further information, call the Department of Military Science office at 701-231-7575 or visit the NDSU Army ROTC website at www.ndsuarmyrotc.com. The Department of Military Science is located on the North Dakota State University campus at Bentson Bunker Fieldhouse.

**National Student Exchange**
Minnesota State University Moorhead holds membership in the National Student Exchange, a cooperative relationship among more than 165 (NSE) colleges and universities in the United States and its territories. Through the NSE, students may spend up to one full year in residence at a participating college as an exchange student. MSUM students have recently been placed at California State University-San Bernardino, University of Oregon, University of Alaska, University of Northern Colorado, University of Guam, and the University of Hawaii. The largest single benefit of the NSE is the privilege of paying tuition at the in-state rather than out-of-state rates.

Students pursuing a professional/licensure degree need to consult with their advisor and plan their program carefully well before enrolling in National Student Exchange. Students wishing to participate in NSE should contact the NSE Coordinator. Information on the program can be found HERE.

**Academic Service-Learning**
Academic Service-Learning (AS-L) is a credit bearing, educational experience in which students participate in organized service activity that meets identified community needs and reflects on the service activity in such a way as to gain further understanding of course content, a broader appreciation of the discipline, and an enhanced sense of civic responsibility.

Service learning is increasingly becoming an avenue used to provide students with "real-life" experience by linking students with local communities and community service providers. Unlike traditional volunteering, service learning encourages the blending of both service and learning goals. Service learning fosters the academic, social, and personal development of students; enhances what is taught in schools by extending student learning beyond the classroom into the community; and helps students utilize newly acquired skills and knowledge in real-life situations in their own community.

Service learning has been integrated in disciplines across the MSUM campus including Communication Studies, Accounting, Education, Music, Nursing, Sociology, and Social Work. More information on Service learning can be found HERE.

**Internship**
An internship is a form of experiential learning that integrates knowledge and theory learned in the classroom with practical application and skills development in a professional setting. Internships give students the opportunity to gain valuable applied experience and make connections in professional fields they are considering for career paths and give employers the opportunity to guide and evaluate talent. *(National Association of Colleges and Employers, 2012.)* An additional objective of internships is to allow students to gain applied experience that would not otherwise be possible in the classroom and to reinforce the choice of one's major field of study.

Internships can be paid or unpaid, for credit or not. They vary in length, and may be full time or part time. Some academic programs require an internship to graduate and some do not. All students are also encouraged to visit the Career Development Center to explore internship options, and review the many posted opportunities through DragonJobs (www.mnstate.edu/dragonjobs).

**Students who wish to or are required to complete an internship for academic credit must meet with the internship coordinator in the academic major of their choice.** Some academic internship coordinators receive internship listings that are not posted on the MSUM Career Development Center website. Academic internship coordinators are the contacts who determine academic and credit expectations for internships.

**Study Abroad**
The Study Abroad Office coordinates a variety of opportunities for students to study abroad. Detailed planning is essential to ensure a successful experience. Students must consult with their faculty advisors if they wish to receive credit toward their major or minor. Financial Aid may be applicable toward these study programs.

In addition to semester and year-long study, faculty in various departments organize one-, two-, or three-week study tours for credit. Students wishing to study abroad should contact the Study Abroad Office or further information can be found HERE.

**Learning Communities**
MSUM Learning Communities provide students who live on campus with an academic advantage. Communities help students make a smooth transition into college life and facilitate an environment that enhances learning potential outside the classroom. Students who are a part of a Learning Community gain exposure to campus resources, university faculty and staff, and to a support network of classmates who share the same major or similar interests. Learning Community students will take classes together, live on the same floor in the residence hall, and have full access to an upper-class mentor who lives on the floor. Students will have the opportunity to get to know faculty within their major. Learning Communities help students set academic goals, develop study skills, engage in leadership opportunities outside of the classroom, and provide students with the opportunity to volunteer within the campus and local community. Please visit Learning Communities online for more information.

**Senior Citizens**
Residents of Minnesota age 62 or older before the beginning of the term may either (a) audit a class free without credit or (b) receive credit by payment of an administrative fee of $20.00 per credit, if space is available after all tuition paying students are enrolled. Senior citizens also must bear the cost of any laboratory or course fees, regardless of whether credit is earned or not. Contact the Registrar's Office for additional information.

## Academic Information

***The most current University Policies can be found on the University Policies and Procedures webpage.***

**Academic Year**
The academic year at Minnesota State University Moorhead is arranged into fall and spring semesters of approximately 16 weeks each and a summer semester offering a variety of start and end dates comprised of variable week and short-term workshop sessions.

Students may enter the university at the beginning of any term although the academic year begins officially with the fall semester.

**Academic Requirements**
Within practicable limits, academic policies and requirements at MSUM are not retroactive. Students entering a degree program can expect to complete the program under the requirements specified at the time of enrollment, unless enrollment is interrupted for more than one year. When a required course is no longer offered, students may substitute another course or courses with the approval of the department chair.

Individual exceptions to major and minor requirements listed in the university catalog, including the waiver or substitution of courses, are subject to the approval of the department chair by written notice to the Registrar's Office. Records of approved changes will be retained in student files until graduation or five years after the last term of enrollment.

**Academic Credit Hour**
The unit of credit at Minnesota State University Moorhead is the semester hour.

In accordance with federal guidelines, academic credit hours for a course are determined by the amount of work represented in intended learning outcomes and verified by evidence of student achievement. The institutionally established equivalency is not less than:

- One semester hour of credit is awarded for 750 minutes of classroom or direct faculty instruction and a minimum of 1800 minutes of out-of-class student work each week for approximately 15 weeks, or the equivalent amount of work over a different amount of time; or
- At least an equivalent amount of work as required in item (1) of this definition for other academic activities as established by the institution, including laboratory work, internships, practicum, studio work, and other academic work leading toward the award of credit hours.
- For laboratories, a minimum of 100 minutes per week for 15 weeks is equivalent to one credit.
- One semester credit of field experience requires a minimum of 40 hours of direct experience.
- For alternate course formats which do not meet faculty contact requirements credit is awarded based on the equivalent face-to-face course or by assessing the amount of work required by the student.

Each academic year shall consist of at minimum 144 instructional days.

Alternative Course Formats

Any course not fitting the traditional 50 minutes per week for each credit in a face-to-face classroom. This includes but is not limited to:

- Accelerated course defined as courses with the normal number of seat-time hours but in a more compressed time than a traditional semester length.
- Hybrid courses defined as reduced seat time with an online component with the same outcomes as the traditional in-seat class.
- Online courses defined as completely presented in an online environment with the same outcomes as the traditional in-seat class.
- Internships defined as similar hours as a traditional course per credit.
- Clinical rotations defined as a minimum of similar hours as a traditional course per credit with specific identified outcomes. Time frames may be dictated by an accrediting agency.
- Individual study or research. The scope of the study or research to require the average student to work an average of three hours a week per credit for 15 weeks.

**Approved Times for Classes**

Options for 3 credit classes that meet 150 minutes per week that are not labs/studios/practica:

| Monday-Wednesday-Friday | Monday-Wednesday | Tuesday-Thursday |
|---|---|---|
| a) 8:00 am-8:50 am | | l) 7:30 am-8:45 am |
| b) 9:00 am-9:50 am | | m) 9:00 am-10:15 am |
| c) 10:00 am-10:50 am | | |
| d)11:00 am-11:50 am | | n) 10:30 am-11:45 am |
| e) 12:00 pm-12:50 pm | i) 12:00 pm-1:15 pm | o) 12:00 pm-1:15 pm |
| f) 1:00 pm-1:50 pm | j) 1:30 pm-2:45 pm | p) 1:30 pm-2:45 pm |
| g) 2:00 pm-2:50 pm | | |
| h) 3:00 pm-3:50 pm | k) 3:00 pm-4:15 pm | q) 3:00 pm-4:15 pm |

Evenings: Two evenings per week
r) either 4:30 pm-5:45 pm or 5:00 pm-6:15 pm (Mon/Wed or Tue/Thu)

s) 6:30 pm-7:45 pm (Mon/Wed or Tue/Thu)
t) 8:00 pm-9:15 pm (Mon/Wed or Tue/Thu)

Evenings: One evening per week
u) one 2 hour 30 minutes (150 minutes) continuous time block starting at 4:30, 5:00, 5:30, 6:00, 6:30, or 7:15 pm on any single evening (ex. 4:30-7:00 on Wed)

Options for classes that meet less than 150 minutes per week that are not labs/studios/practica (ex. 1 credit class, 2 credit class, classes partially online, etc.)

- Choose a class time starting on the hour or half-hour that overlaps at most one of the options a-u above (ex. 10:00-10:50 am Mon/Wed)

Options for classes that meet more than 150 minutes per week that are not labs/studios/practica (ex. 4 credit class, half-semester 3 credit class, etc.)

- Choose a class time starting on the hour or half-hour that overlaps at most two of the options a-u above (ex. 9:00-9:50 am M/T/Thu/F)

Options for labs/studio/practica that meet at most 2 hours 50 minutes at a time

- Choose a class time starting on the hour or half-hour that overlaps at most two of the options a-u above (ex. 9:00-10:50 Monday)
- If there are multiple labs/studios/practica per week, each of which meets for at most 2 hours 50 minutes, schedule the days to be Mon/Wed, Mon/Fri, Wed/Fri, or Tue/Thu

Classes meeting for more than 3 hours at a time shall be scheduled to minimize class conflicts for the enrolled students and efficiently use classroom space.

**Course Online Presence Policy**
All courses with student enrollments shall have an online presence in the campus LMS (Learning Management System: D2L Brightspace). Students shall have, at a minimum, access to the latest version of the syllabus, the instructor's contact information (available via the online class list), and office hours with location (physical or virtual).

**Course Syllabus**
The course syllabus is prepared to clearly notify students of course content, course requirements, and course expectations. Each student enrolled in a course shall be provided a course syllabus during the first week of class. For courses offered in a condensed format, the timeframe for distribution will be adjusted accordingly.

**Classification of Students**
Students at Minnesota State University Moorhead are divided into classes as follows:

| | |
|---|---|
| freshman | 0-29 credits |
| sophomore | 30-59 credits |
| junior | 60-89 credits |
| senior | 90 or more credits |

Special students not participating in a degree program are admitted on an individual basis and classified separately.

**Academic Honesty**
The university expects all students to represent themselves in an honest fashion. In academic work, students are expected to present original ideas and give credit for the ideas of others.

Faculty members have academic freedom, which includes the authority to design and develop materials presented in a course along with deciding how to teach the course. Also, faculty members have the authority to evaluate submissions from students to determine what grade is to be given to each student in the course or on a particular activity.

When an instructor has convincing evidence of cheating or plagiarism, the instructor has a variety of options, which may include the following academic outcomes (this list is not exhaustive):

- A failing grade may be assigned for the course in which the student cheated.
- The course grade may be reduced.
- The assignment may be given a zero.
- The individual item on the assignment may be given a zero.
- The student may be required to re-submit the assignment.
- The student may be required to submit an alternative assignment that meets the same learning outcomes.

The instructor shall report the incident of academic dishonesty and the academic outcome to the college dean in instances where a failing grade in a course is given solely due to academic dishonesty. The instructor may also choose to report the incident of academic dishonesty and the academic outcome to the college dean for other cases, at the instructor's discretion. If the instructor, dean, or any other person feels the seriousness of the offense warrants additional action, the incident may also be reported to the Director of Student Conduct and Resolution in the Dean of Students Office who will determine any relevant student conduct outcome (see Student Conduct Code for details).

- For students who are referred, past case history will be reviewed to determine if any additional disciplinary, non-academic outcomes should be assessed. The Director of Student Conduct and Resolution may assess non-academic outcomes in addition to the academic outcomes in situations including, but not limited to, the following: if there are repeated academic honesty violations; if a student takes a test for another student; if a student obtains an unauthorized copy of a test; if a student misrepresents facts to receive a postponement or extension on a test, quiz, or other assignment.
- The Director of Student Conduct and Resolution does not provide an academic outcome for students found responsible for violating University Prohibited Conduct Policies nor requests or initiates any academic outcome in such cases; rather, a student conduct outcome is assigned and recorded within the student's disciplinary record.

**Advising**

Academic advising is designed to assist each student in the development of a meaningful educational plan compatible with the student's interests, abilities, and life goals. Academic advising is an ongoing and collaborative process and requires the student and advisor meet at least once each semester.

**Students may expect their advisors:**

- Have knowledge of the university curriculum requirements and are able to provide accurate information;
- Are informed about university policies, procedures, support services, and resources;
- Are reasonably available for consultation by having posted office hours and/or appointment times;
- Have knowledge of career opportunities and appropriate graduate programs in their fields; and
- Will refer the student to specialized institutional and community resources when necessary.

**Advisors may expect the student:**

- Will make and keep appointments;
- Will prepare for advisor appointments by bringing their degree audit report (DARS) to the appointment and giving thoughtful consideration to life/career goals, fields of study, and personal interests;
- Will keep their advisor informed when there are changes in objectives, course selection, academic plans, or progress;
- Will maintain up-to-date personal records of academic progress and will resolve discrepancies on official grade reports and/or other university documents; and

- Recognizes that they bear the ultimate responsibility for the development and implementation of his or her academic plan of study, including meeting graduation requirements.

**Advisor Assignment and Changes**
Students are assigned to a faculty advisor after the time of first registration. Students can find the name of their advisors in eservices. Any change of advisor may be made with the approval of the chair of the department in which the student plans to seek a major and must be reported to either the Registrar's Office or the Academic Success Center.

**Appeal of Undergraduate Academic Policies**
Academic Appeals can be filed to seek waiver of a graduation or Liberal Arts and Sciences Curriculum (LASC) requirements, retroactively withdraw from a course (after the withdrawal deadline has passed), and other similar situations. Appeals to retroactively withdraw cannot be accepted if five years have passed since the course in question was taken. Students can inquire in the Registrar's Office whether an appeal is appropriate in their situation.

Students may complete the appeal form and return it to the Registrar's Office, along with appropriate supporting documentation. The Academic Appeals Committee reviews student appeals and approves or denies them. Students whose appeals are denied by the Committee may appeal to the Associate Vice President for Academic Affairs whose decision is final.

**Academic Forgiveness Policy**
Academic forgiveness gives an undergraduate student who has not been enrolled at MSUM for at least five years a one-time opportunity to establish a new GPA. Students must meet the following conditions:

- The student must not have been enrolled at MSUM for a minimum of five consecutive years prior to the "point of academic forgiveness."
- Upon readmission, the student must demonstrate adequate academic ability by completing 12 undergraduate credits at MSUM with a minimum GPA of 2.0 (grade of "C" or higher in each class).

Academic forgiveness cannot be granted if a student has earned a post-secondary degree following his/her initial MSUM attendance and applied MSUM credits toward that degree.

If academic forgiveness is granted, The Registrar's Office will make the following adjustments to the student's transcript:

- The transcript will be separated into two sections indicating the point of academic forgiveness. Academic forgiveness will be indicated on the transcript.
- No credits will be granted for any course completed at MSUM prior to the point of academic forgiveness. However, the course titles and grades from these courses will remain on the transcript.
- Calculation of the student's grade point average will not include grades received prior to the point of academic forgiveness.

**Internship Policy**
Students will not be required to return to campus after completing an internship. Students should, however, be encouraged to return to campus to share their experiences.

Before the start date of the internship, the internship supervisor, the site evaluator, and the student shall sign an internship agreement which outlines mutual responsibilities and expectations and contains statements clearly articulating liability assumption on the part of MSUM, the site, and the student.

Internship Standards:

- A minimum of one (1) semester credit and a maximum of twelve (12) semester credits will be granted.
- A maximum of twelve (12) semester credits may be counted toward a degree.
- An internship will be graded only on a pass-fail basis.

- An internship may be taken only by a student majoring in the department or program with an approved internship experience.
- The student must have at least junior standing.
- Internship credits will be awarded on the basis of a minimum of forty (40) hours of fieldwork per semester per credit received.
- Each internship must have a written agreement outlining the mutual expectations and responsibilities of MSUM, the site, the department, and the student.
- The internship agreement will be kept on file in the department office for six years.
- Every internship will be evaluated by the department internship coordinator or the internship supervisor.

Departmental Expectations:
All departments offering internships must have a current internship document on file in the Office of the Provost and Senior Vice President for Academic Affairs, and in the office of the appropriate college dean. The document shall include statements of the:

- Objectives of the internship program.
- Responsibilities of the student, the faculty supervisor, and the site evaluator.
- Departmental procedures for approving internships.
- Means of reporting results or accomplishments.
- Method(s) of assessment.
- Expectations and procedures of monitoring internship achievements.
- Departmental practice on faculty workload, if any.
- Departmental policy on internship compensation.
- Name of a designated departmental internship coordinator.

**Background Checks**
Minnesota law requires any person who provides direct contact services to people receiving services from facilities and agencies licensed by the Minnesota Department of Human Services (DHS) and/or the Minnesota Department of Health (MDH) have a background study conducted by the state. Direct contact is defined as providing face-to-face care, training, supervision, counseling, consultation, or medication assistance to people receiving services from the agency or facility. Any individual who is disqualified from having direct patient contact as a result of the background study will not be permitted to participate in a clinical placement in a DHS or MDH licensed facility or agency. Failure to participate in a clinical placement required by the academic program could result in ineligibility to qualify for a degree in this program.

Students whose programs may involve DHS or MDH licensed facilities or agencies should contact the chair of their major program. Forms may be obtained from the program chair.

**Student Liability**
Students are liable for their actions and may be sued (along with others) for damages due to negligence. Minnesota State University Moorhead has a Student Intern Professional Liability Policy which covers students engaged in internships. The coverage is for $2,000,000 per occurrence and $5,000,000 in annual aggregate. In addition, some internships and academic programs may require students to purchase separate liability insurance.

If the student or his/her academic department or clinical practicum site does not have a formal internship agreement, and therefore does not have a formally acknowledged internship (i.e. no credit hours, etc.), the student is NOT covered by the University Student Intern Professional Liability Policy.

Students completing their practicum work in area schools can receive liability insurance through the Education Minnesota Student Program provided they are members. For more information, check out their website at http://www.educationminnesota.org/member-benefits/membership/students.aspx.

## Grades and Grade Points

All study for university credit is recorded with the following grade designations:

A+ 4.00 Grade points per credit
A 4.00 Grade points per credit
A- 3.67 Grade points per credit
B+ 3.33 Grade points per credit
B 3.00 Grade points per credit
B- 2.67 Grade points per credit
C+ 2.33 Grade points per credit
C 2.00 Grade points per credit
C- 1.67 Grade points per credit
D+ 1.33 Grade points per credit
D 1.00 Grade point per credit
D- 0.67 Grade points per credit
F 0.00 Grade points per credit
FN 0.00 Grade points per credit
I Incomplete
P Pass
IP In Progress
AU Audit
W Withdrawal
EX Exchange – used to document registration. This grade does not affect GPA or Satisfactory Progress.

Grade changes may be submitted by the instructor or dean up to three years after the conclusion of the course.

**Grade Point Average**
The grade point average (GPA) is computed by dividing the number of grade points earned in a given course or courses by the number of credits attempted. The GPA is based on MSUM grades only. Transfer courses are not used in computing the GPA.

Credits with grades of “P”, “I”, “IP”, “AU”, “W”, or “EX” are not included in computing the GPA.

Credits with grades of “F” and “FN” are included in computing the GPA.

**In Progress Grades**
The grade of in progress or "IP" is reserved for special cases and means the particular course is not designed to be completed by the end of the term. An "IP" must be completed by the student within two semesters (undergraduate courses) and four semesters (graduate courses), not including summer. If the in progress grade is not completed within the specified time, a grade of "F" will be awarded. Students should never complete the course by re-registering for the class. "IP" grades will be converted to "F" before a degree is conferred.

**Pass-Fail Courses (P/F Grades)**
Certain courses which offer insufficient opportunity for graded evaluation may be offered with only the grading options of Pass “P” or Fail “F”. Student teaching and internships are always graded on a pass-fail basis.

**Pass-Fail Courses (P/F Grades) Option**
Students with sophomore, junior, or senior standing may request to take letter graded courses on a P/F basis. Students may not request this option for courses required for their major or minor program. No course taken with P/F grading may be applied to the Liberal Arts and Sciences Curriculum (LASC).

Students may make this request for only one course per semester. Students may apply up to 16 credits under the P/F grading option to a baccalaureate degree program.

No letter graded course which a student has previously failed may be repeated under the P/F grading option.

A grade of "P" will be recorded for any course successfully completed under the P/F option. The grade of "F" will be recorded if the course is failed and computed in the GPA.

A P/F grading form to request the P/F grading option must be returned to the Registrar's Office on or before the tenth class day of the semester. Summer session due dates vary based on the length of individual sessions and classes. Once the form has been submitted, the student may not change the course back to letter grading.

**Incomplete Credits**
The mark of Incomplete “I” is granted when

students are unable to complete course requirements for reasons beyond their control and when arrangements have been made with the instructor before the end of the semester. If an incomplete requires substantial class attendance in a subsequent term, the student must register to repeat the course and pay tuition and fees.

"I" grades are administered by completion of the "Incomplete Grade" form by the student and instructor. "I" grades must be completed by the finish of the next semester or they will change to "F". All "I" grades will be converted to an "F" before a degree is conferred. Grade changes may be submitted as outlined above.

**Course Grade Appeals**
All students have the right to expect thoughtful and clearly defined approaches to course grading, but it must be recognized that varied standards and individual approaches to grading are valid. Course grading methods should be thoroughly explained to students at the beginning of the semester and must appear on the course syllabus.

In a course grade appeal, only arbitrariness, prejudice, and/or error will be considered as a legitimate bases for an appeal.

***Arbitrariness****: The grade awarded represents such a substantial departure from accepted academic norms as to demonstrate that the instructor did not exercise professional judgment in the matter.*

***Prejudice****: The grade awarded was motivated by ill will, and is not indicative of the student's academic performance.*

***Error****: The instructor made a mistake, or failed to give students required notice of grading policies in the syllabus.*

If a student believes that discrimination or harassment were factors in the determination of the course grade awarded, a complaint should be filed with the Affirmative Action Officer under Minnesota State Colleges and Universities board policy.

A student may appeal a grade reduced for academic dishonesty through the course grade appeal policy.

The course grade appeal process must be initiated by the student prior to the close of week six of the following semester. If the student moves to the formal grade appeal process it must be completed before the end of the semester in which the appeal was initiated. In cases where an incomplete was originally assigned, an appeal must be made within six weeks of the date the final grade is posted by the Registrar's Office and available to the student on the web. If the student uses the formal process, the process must be completed during the first ten weeks of the next academic year term.

Course Grade Appeal Process

Step 1: Informal Process

- The student will discuss the issue with the instructor, and may consult with the department chairperson, in an attempt to resolve the matter.
- If the matter is not resolved to the student's satisfaction, the student may discuss the issue with the dean in whose college the course was offered. If the matter cannot be resolved informally, the student may choose to file a formal appeal.

Step 2: Formal Process

- The student must request a "Course Grade Appeal" form from the dean. The student will submit the completed form, along with any supporting documentation, to the dean. It is recommended the student keep a copy of all materials submitted. The dean will send the form and supporting documentation to the instructor.
- The dean will discuss the matter with the instructor and the student in an attempt to resolve the appeal.
- If no resolution can be reached, an ad hoc college committee will be formed. The

dean will contact the Faculty Association President and request the appointment of one faculty member from the academic department offering the course, two faculty members from other departments within the college, and two upper division students who are majors in fields represented in that college. The dean will ask for a volunteer from among the appointees to chair the committee.

- The instructor of the course will submit a written response to the appeal and supporting documentation of their choosing. The student will receive a copy of the material. Any material content protected by data privacy statutes will be redacted.
- The ad hoc appeals committee performs an investigative role and may request additional written information from the student and/or the instructor through the committee chairperson or the dean.
- Based on the information submitted, the committee will prepare a written finding with regard to the issues raised in the appeal. The committee will speak to one or more of the criteria as the basis for its finding. The committee chairperson will forward a written copy to the student, instructor, and dean.
- The instructor and the student may each respond in writing to the dean if they believe the committee's findings are acceptable or unacceptable. If either does not respond within seven days, the dean will assume the committee's written findings are acceptable to that person.
- If no resolution has been reached, the dean will review the written findings of the committee and the responses of the instructor and the student. The dean will send his/her recommendation, the committee's written finding, and all supporting documentation and correspondence to the Associate Vice President of Academic Affairs (or designee), the students, and the instructor.
- The Associate Vice President for Academic Affairs (or designee) will review all the materials and submit a written recommendation to the President (or designee), and copies of that recommendation to the student and instructor. The President (or designee) will make the final decision.
- The final decision may take the form of a recommendation to the instructor, change of grade, and/or determination that no action is warranted.
- If at any time during the formal course grade appeal process resolution is reached, the course grade appeal process terminates.

**Final Exam Policy**

No student should be expected to write/take more than two (2) final examinations on the same day during the final exams schedule. Any student who has three (3) exams on a single day as scheduled by the university may appeal to any of the instructors concerned to reschedule one of the exams. Should the instructor(s) be unwilling to reschedule the examination, the student may appeal to the academic dean of their appropriate college.

**Proctoring Exam Policy**

It is not acceptable for clerical staff or student workers to proctor course examinations.

It is appropriate to ask faculty colleagues, preferably within the department, to proctor an exam when the course instructor must be absent.

In emergency situations, individual faculty members might have no alternative but to ask either the departmental clerical staff or a student worker for assistance during an exam period. However, in the absence of such an emergency, faculty members are expected to administer their own course examinations

## Registration Procedures

**Registration**
Prior to registration, students will plan a program with an advisor and receive their registration access code. Registration must be completed and all tuition and fees paid to Business Services according to published deadlines in order to avoid assessment of late payment fees.

Class schedules and descriptions of the registration procedures for any semester may be found on the Registrar's Office page.

**Adding or Dropping Courses**
Registration changes may be made after initial registration. A class may be added through the fifth class day of the term, except for courses which begin later in the semester, or in special circumstances approved by academic appeal. Students may drop a class without record (no indication will appear on the transcript) by the fifth day of the class term, unless the course begins later in the semester or is a shorter summer session course. A class dropped after the first five days will appear on the student's record as a withdrawal ("W").

Refunds for dropped courses may apply and guidelines may be found on the Business Services website.

**Tri-College University Registration**
Students who are enrolled at Minnesota State University Moorhead, North Dakota State University, Concordia College, Minnesota State Community and Technical College, or North Dakota State College of Science may complete a portion of their coursework at any of these institutions through the Tri-College University. Registration procedures for tri-college coursework may be found on the Registrar's Office page.

**Auditing Courses**
Students who wish to audit or attend a course without seeking credit must be admitted to MSUM, be registered for the course, and pay full tuition and fees. Classes taken for audit are not eligible for financial aid and do not count toward full-time status. Students may be billed for financial aid if classes taken for credit are later changed to audit status.

To audit a course, students shall attend class sessions but are not required to complete assignments or projects, participate in discussions, take examinations, or meet other requirements.

Students may declare the intent to audit a course by submitting a course audit form signed by the instructor by the tenth class day of a semester. Summer session dates vary based on the length of individual sessions; refer to drop dates posted on the Registrar's Office page.

Students may not receive credit for auditing a course except by re-enrollment for credit and successful completion of the course in a subsequent semester.

An entry of "AU" (Audit) is made on a student's permanent academic record.

**Repeating Courses**
Students who wish to take advantage of the repeated course opportunity to improve a grade may register for a tri-college course under current tri-college policies. Tri-college courses are considered resident credit and the credits and grade will replace the MSUM attempt. Students may also take an equivalent course at another college or university. These attempts will be considered transfer credit and the MSUM credit and grade will be removed. The transfer grade will not be included in GPA and the most recent attempt, whether at MSUM or another institution, will be counted.

When a course is repeated at MSUM, all attempts remain on the academic record but only the credits, grades, and related honor points for the most recent attempt will be used in calculating the cumulative grade-point average and credits for graduation. Students forfeit the previous grade no matter what grade is earned when the course is repeated. Courses taken for regular A-F grades may not be repeated for pass-fail grades.

All course attempts will remain on the permanent academic record. All repeated courses are noted on

the transcript to indicate the course was repeated in a following term and excluded from cumulative totals. A student cannot receive financial aid for more than one repetition of a previously passed course.

**Resident Credits**
Resident credits are those registered and paid for at MSUM while attending courses offered on campus, through Tri-College, or through other designated exchange programs. Non-resident credits are those earned at another college (except in authorized exchange programs), and those credits earned through Advanced Placement, the International Baccalaureate, the College Level Examination Program, credit for prior learning, or examination for credit.

**Excess Credit**
Freshmen or sophomores registering for more than 18 credits during any semester (nine credits during a summer session) must fill out an excess credit form. This form must be signed by both the student's advisor and their respective college dean. No student may register for more than 20 credits without an excess credit permit. The form can be found on the Registrar's Office page.

**Senior Citizens**
Residents of Minnesota age 62 or older before the beginning of the term may either (a) audit a class free without credit or (b) receive credit by payment of an administrative fee of $20.00 per credit, if space is available after all tuition paying students are enrolled. Senior citizens also must bear the cost of any laboratory or course fees, regardless of whether credit is earned or not. Contact the Registrar's Office for additional information.

**Withdrawal from Enrollment**
To withdraw officially from all enrolled courses, students must officially withdraw through the Academic Support Center. Students who withdraw without following this procedure will receive a grade of "F" in each course and are considered "unofficially withdrawn". Financial Aid recipients who unofficially withdraw may incur repayment obligations. For information on withdrawing, go to the Academic Success Center.

"W" grades cannot be granted if the complete withdrawal takes place later than the normal withdrawal deadline of the semester. Under special circumstances, students may pursue "retroactive withdrawal" after this deadline by filing an academic appeal with the Registrar's Office.

Any refund of tuition or fees will be according to the schedule given on the Business Services website.

**Military Withdrawal**

**Part 1. Purpose**
To provide consistent guidance for students at MSUM who are called to active duty for military service or are veterans, as defined in Minn. Stat. § 197.447. In the case of an emergency declaration, MSUM students other than military personnel may be called to active, full-time service in response to the emergency. As such, when an emergency declaration has been issued, the president has the discretion to extend this policy to include students who are called to full-time service in response to such an emergency declaration for the duration of the emergency. If the president applies this discretionary extension, an announcement will be made indicating those community members who can utilize the extension.

**Part 2. Applicability**
This policy is applicable to students who are called to active duty for military service or veterans with a service-connected disability certified by the United States Department of Veteran's Affairs, and their service-connected medical condition or medical treatment requirements prevent their attendance at or progress in their higher education training or studies. It is also applicable to students who are called to full-time service in response to an emergency declaration who are included in the announcement from the president.

**Part 3.**
Student Options for Course Interruption by Active Duty, Medical Conditions or Medical Treatment, or Full-Time Service in Response to an Emergency Declaration Applicable students, as defined in Part

2 of this policy, must to the extent possible, be provided one of the following options.

Option 1. Withdraw and Refund
The student may withdraw from one or more courses for which tuition and fees have been paid and be given a full refund of tuition and fees. In such a case, the student may either receive a retroactive drop from the courses or "W" grades with an approved tuition waiver and Military or Emergency Declaration Withdrawal annotation on the student's record, whichever is deemed in the student's best interest. The Military or Emergency Declaration Withdrawal annotation on the student's record must not result in negative consequences for the student. The student's grade point average must not be altered or affected in any manner because of action under this item. Any refunds are subject to the requirements of the state or federal financial aid programs of origination.

Students receiving financial aid who choose this option must be informed that they may be liable for any required refunds of state or federal financial aid funds.

Option 2. Delay Completion
The student may be given a grade of incomplete in a course and complete it upon release from active duty or upon completion of medical treatment, or upon sufficient medical recovery. Course completion may be accomplished by independent study or by retaking the course without payment of tuition. Under federal financial aid policies, a course that is retaken under these conditions cannot be counted toward a student's enrollment load.

Option 3. Complete the Course
The student may continue and complete the course for full credit. Class sessions missed by the student due to performance of active military service, the veterans' medical treatment or condition, or full-time service in response to an emergency declaration must be counted as excused absences and cannot be used to adversely impact the student's grade or standing in the class. However, any student who selects this option is not automatically excused from completing assignments due during the time-period the student is performing such service, receiving medical treatment or recovering from a medical condition.

Pursuant to Minn. Stat. § 192.502, a passing grade must be awarded if, in the opinion of the faculty member teaching the course, the student has completed sufficient work and has demonstrated sufficient progress toward meeting course requirements to justify the grade.

Part 4. Refunds
Students covered by this policy are eligible to receive a refund for paid room, board, and fees attributable to the time-period during which the student was serving in active military service, receiving medical treatment or dealing with the student's medical condition and did not use the facilities or services for which the amounts were paid. Any refund of room, board, and fees is subject to the requirements of the state or federal financial aid programs of origination.

Part 5. Withdrawal and Readmission
Students who choose to withdraw must be readmitted and reenrolled as students, without penalty or redetermination of admission eligibility within two years following release from the state or federal active military service, following completion of medical treatment, or sufficient recovery from the student's medical condition.

## Transfer of Credits

All credit evaluation will be based upon official transcripts received from the original credit issuing institution. Transfer courses will not be calculated in the MSUM cumulative GPA. Transfer courses will be included in LASC, major, and minor GPA requirements.

**Accreditation**
Transfer credit from institutions accredited by regional associations (North Central, Middle States, etc.) will be accepted by MSUM subject to limitations. Transfer credit from nationally accredited schools on the CHEA/US DOE list will be

reviewed for transfer credit acceptance on a case-by-case basis.

**Liberal Arts and Sciences Curriculum (LASC)/General Education**
Transfer students will receive evaluations indicating the extent and distribution of credits which are accepted by MSUM toward LASC and their degree requirements. LASC requirements will be considered complete for transfer students who complete the Minnesota Transfer Curriculum (MnTC), the North Dakota General Education Requirements Transfer Agreement (GERTA), or an equivalent (must meet credit and goal standards) Associate of Arts (AA) or Associate of Science (AS) degree. Courses will be evaluated to meet LASC goal requirements based on the sending institutions general education components or the equivalency assigned when transferred to MSUM in accordance with Minnesota State system transfer policy. If general education requirements are not completed before transfer, transfer students must complete 40 credits in LASC courses and meet all goal areas. Transfer students must also meet MSUM's first year experience and writing intensive requirements based on the number of credits transferred in.

Transfer credits may not be applied to meet an area requirement (LASC, major, or minor) unless they also meet the corresponding GPA requirement for the academic area.

**Repeated Coursework in Transfer**
Students who wish to take advantage of the repeated course opportunity to improve a grade may register for a tri-college course under current tri-college policies. Tri-college courses are considered resident credit and the credits and grade will replace the MSUM attempt. Students may also take an equivalent course at another college or university. These attempts will be considered transfer credit and the MSUM credit and grade will be removed. The transfer grade will not be included in the GPA. The most recent attempt, whether MSUM or another institution, will be counted.

When a course previously transferred to MSUM is repeated at MSUM, the transferred course is considered duplication and removed from GPA and credit totals. The most recent attempt is counted.

**Lower and Upper Division**
Courses designated at the 100-200 level at the sending institution may not be used to meet the 40 credits of upper division courses required for graduation even if they are deemed equivalent to a 300-400 level course at MSUM.

**Other Types of Credit**
Courses transferred to MSUM which are evaluated as developmental in nature will not be granted college level transfer credit, even if the sending institution has awarded credit. However, these courses may be used to satisfy pre-requisite requirements.

MSUM will accept for transfer, as lower division electives, a maximum of 16 semester credits of vocational or technical courses offered by technical colleges. Specific requirements in a student's major or minor field of study may be waived upon evaluation of vocational or technical courses judged by MSUM faculty to be comparable or equivalent to courses offered by MSUM. Any credit granted upon review will be in addition to the total of 16 credits of lower division electives.

Credit awarded for departmental examinations, waivers of credit, etc. may be eligible for credit based on MSUM Credit for Prior Learning Policy.

**Transfer Appeal Policy**

Transfer students have the right to appeal an evaluation decision. Appeals may be completed by filling out the Transfer Evaluation Appeal form online.

**Examination for Credit**
Examination for credit may be attempted only by students who are currently enrolled at MSUM. They may only be attempted when the department has announced an examination or if an individual student has received written permission from the department chair to take an exam. Credit may not be granted by examination if the student has

previously or is currently registered for an equivalent course. Credit earned through examination for credit is not resident credit and may not be used to satisfy resident credit requirements for graduation. For guidelines and procedures to earn examination for credit contact the Registrar's Office or go to the Exam for Credit form online.

**Credit for Prior Learning**
Credit for prior learning is undergraduate or graduate level academic credit awarded for demonstrated university-level learning gained through learning experiences outside Minnesota State University Moorhead credit-bearing courses. External credit is assessed through outside entities. Internal credit is assessed by MSUM faculty using academically sound and rigorous methods and processes.

MSUM shall provide current, comprehensive, and accessible information on opportunities to obtain credit for prior learning to prospective and admitted students as part of degree planning and advising. MSUM shall provide opportunities for enrolled students to demonstrate university-level learning achieved through prior learning experiences outside of the MSUM credit-bearing course. This credit will be applicable to courses, programs, and degree requirements.

MSUM shall determine the credit award for students who demonstrate prior learning consistent with system procedures. Credit awarded for prior learning may fulfill LASC, program/major/minor, and/or elective courses. Credit may be awarded at the lower-division, upper-division, and graduate level.

Credit awarded for prior learning by a college or university must be accepted in transfer by MSUM in accordance with System Procedure 3.21.1 Undergraduate Course Credit Transfer.

There is no limit to the amount of credit that may be awarded for prior learning assessments.

An academic appeal may be used by students who are denied credit requested for prior learning.

**External Assessments**
External assessments include methods and processes that could result in credit for prior learning achieved and assessed through a nationally recognized third-party assessment agency or organization, regionally or nationally accredited postsecondary institution, or noncredit instruction. Students demonstrate a level of proficiency recognized through curriculum, instruction, program, or a standardized exam. CPL external assessment types may include, but are not limited to, AP, IB, CLEP, and other national standardized assessments, world languages seals and certificates, industry recognized credentials, licenses, and certifications, and noncredit instruction in programs such as registered apprenticeships, continuing education, and customized training.

External assessment is graded with a P grade and does not count toward residency credit.

MSUM will not charge tuition for credit awarded for external assessments and will not charge students fees for CPL external documentation processing services.

**Internal Assessments**
CPL internal university assessments must be conducted by MSUM faculty with related subject-area expertise. Such assessments determine competence-to-credit comparability, course-equivalency or individualized subject status, and application to degree requirements or electives. CPL internal assessment types may include, but are not limited to, credit by exam, prior learning portfolio assessment, individualized subject-area assessment, group or seminar assessment, and competency-based assessment. MSUM may assess prior learning in a single-subject process, or a process that reviews multiple subjects in one documentation and assessment process.

Examples of internal CPL include learning gained in life, community and/or work-based settings, and through experiences outside of the MSUM credit-bearing course, including but not limited to independent study, life experience and reflection, non-credit study programs, career education,

continuing education, online learning or instruction, and training or certificate programs. The learning occurs "prior to" the student's request for assessment.

Credit awarded for internal prior learning will count toward MSUM residency requirements. MSUM will designate the credit awarded on the official transcript as a credit-bearing courses with no reference to credit for prior learning. A letter or P grade will be awarded in accordance with the normal grading method in the course. MSUM will clearly publish all tuition and fees associated with awarding credit for internal prior learning. These tuition and fees are independent of the results of the assessment.

**Advanced Placement Credit (AP)**

Advanced Placement (AP) is a program of The College Board through which a high school student completes college-level courses that are designated as AP in high schools. A student may earn college credits by demonstrating a specified level of performance on AP examinations. The AP exams, which are scored on a 5-point scale, can be taken by any student who feels prepared by independent study or other preparation as well as by students who complete AP courses. AP Score Reports are sent to the colleges or universities designated on your exam answer sheet. Students who do not designate MSUM on their answer sheet may contact AP Services (see below) to have scores sent to MSUM. The code for MSUM is **6678**.

In accordance with Minnesota State system policy (3.15), a minimum score of three is required to receive credit for the Advanced Placement (AP) examinations. AP exams will be granted the same number of credits as the course they replace. If MSUM does not have an equivalent course, free elective credit may be awarded. Credit earned through AP is not residence credit and may not be used to satisfy residence-credit requirements for graduation. AP credit may be used toward Liberal Arts and Sciences Curriculum requirements.

The policies and procedures concerning the awarding of this credit may be found on the Testing and Placement website. The following AP subjects and scores are used to award equivalent courses and credit at MSUM. While every effort is made to keep this information up-to-date, scores and equivalencies may be subject to change.

| AP Subject | AP Code | AP Course | Accepted Score | Equivalent MSUM Course | LASC Goal(s) |
|---|---|---|---|---|---|
| **Arts** | AP13 | Art History | 3,4,5 | Elective | GOAL 6 |
| | AP14 | Studio Art-Drawing Portfolio | 3 | ART 101 | GOAL 6 |
| | AP14 | Studio Art-Drawing Portfolio | 4,5 | ART 101 & ART 102 | |
| | AP15 | Studio Art 2-D Design Portfolio | 3,4,5 | ART 125 | |
| | AP16 | Studio Art 3-D Design Portfolio | 3,4,5 | ART 126 | |
| | AP75 | Music Theory | 3 | MUS 107A + elective | |
| | AP75 | Music Theory | 4,5 | MUS 107A & MUS 108A + elective | |
| | AP76 | Music Aural Subscore | 3 | MUS 107B + elective | |
| | AP76 | Music Aural Subscore | 4,5 | MUS 107B & MUS 108B + elective | |
| | AP77 | Music Nonaural Subscore | 3,4,5 | Elective | |
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| **English** | AP36 | English Language & Composition | 3 | ENGL 101 | GOAL 1B |
| | AP36 | English Language & | 4,5 | ENGL 101 + elective | GOAL 1B |

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|---|---|---|---|---|---|
| | | Composition | | | |
| | AP37 | English Literature & Composition | 3 | ENGL 101 | GOAL 1B |
| | AP37 | English Literature & Composition | 4,5 | ENGL 101 + elective | GOAL 1B |
| | AP91 | English Language/ Literature/ Composition | 3 | ENGL 101 | GOAL 1B & GOAL 6 |
| | AP91 | English Language/ Literature/ Composition | 4,5 | ENGL 101 + elective | GOAL 1B & GOAL 6 |
| | | | | | |
| **History & Social Science** | AP58 | Comparative Govt. & Politics | 3,4,5 | POL 150 | GOAL 5 & 8 |
| | AP43 | European History | 3,4,5 | Elective | GOAL 5 |
| | AP53 | Human Geography | 3,4,5 | GEOS 111 | GOAL 5 |
| | AP34 | Microeconomics | 3,4,5 | ECON 202 | GOAL 5 |
| | AP35 | Macroeconomics | 3,4,5 | ECON 204 | GOAL 5 |
| | AP85 | Psychology | 3 | PSY 113 | GOAL 5 |
| | AP85 | Psychology | 4,5 | PSY 113 + elective | GOAL 5 |
| | AP57 | U.S. Government & Politics | 3,4,5 | POL 120 | GOAL 5 |

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| | AP07 | U.S. History | 3 | HIST 121 | GOAL 5 |
| | AP07 | U.S. History | 4,5 | HIST 121 & HIST 122 | GOAL 5 |
| | AP93 | World History | 3 | HIST 104 | GOAL 5 & 8 |
| | AP93 | World History | 4,5 | HIST 104 & HIST 105 | GOAL 5 & 8 |
| | | | | | |
| **Math & Computer Sciences** | AP66 | Calculus AB | 3,4,5 | MATH 261 | GOAL 4 |
| | AP68 | Calculus BC | 3,4,5 | MATH 262 | GOAL 4 |
| | AP69 | Calculus AB Subscore Grade | 3,4,5 | MATH 261 | GOAL 4 |
| | AP31 | Computer Science A | 3,4,5 | CSIS 152 | |
| | AP90 | Statistics | 3,4,5 | MATH 234 | GOAL 4 |
| | | | | | |
| **Sciences** | AP20 | Biology | 3,4 | BIOL 104 | GOAL 3 |
| | AP20 | Biology | 5 | BIOL 104 & BIOL 109/BIOL 109L | GOAL 3L |
| | AP25 | Chemistry | 3 | CHEM 150/CHEM 150L | GOAL 3L |
| | AP25 | Chemistry | 4,5 | CHEM 150/CHEM 150L & CHEM 210/CHEM 210L | GOAL 3L |
| | AP40 | Environmental Science | 3,4,5 | Elective | GOAL 10 |
| | AP80 | Physics C Mechanics | 3,4,5 | PHYS 160 | GOAL 3L |

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| | AP82 | Physics C Electricity & Magnetism | 3,4,5 | PHYS 161 | GOAL 3L |
| | AP83 | Physics I | 3,4,5 | PHYS 160 | GOAL 3L |
| | AP84 | Physics II | 3,4,5 | PHYS 161 | GOAL 3L |
| | | | | | |
| **World Languages & Cultures** | AP28 | Chinese Language & Culture | 3,4,5 | Elective | GOAL 8 |
| | AP48 | French Language & Culture | 3,4,5 | Elective | GOAL 8 |
| | AP55 | German Language & Culture | 3,4,5 | Elective | GOAL 8 |
| | AP60 | Latin | 3,4,5 | Elective | GOAL 8 |
| | AP87 | Spanish Language & Culture | 3 | SPAN 101 | GOAL 8 |
| | AP87 | Spanish Language & Culture | 4,5 | SPAN 101 & SPAN 102 | GOAL 8 |
| | AP89 | Spanish Literature & Culture | 3,4,5 | Elective | GOAL 8 |

**International Baccalaureate Credit (IB)**

MSUM recognizes the International Baccalaureate (IB) program, offered at many high schools in the United States and abroad, which allows students to take examinations for credit. In accordance with Minnesota State system policy 3.16, a student shall receive three (3) or more course credits for scores of 4 or higher on individual Higher Level IB examinations. A student shall receive two (2) or more credits for scores of 4 or higher on individual Standard Level IB examinations. To receive this credit, students must have an official score report sent to MSUM. Credit earned through IB examination is not resident credit and may not be used to satisfy resident credit requirements for graduation. IB credit may be used toward LASC requirements. The policies and procedures concerning the awarding of this credit may be found on the Testing and Placement website. The following IB subjects and scores are used to award equivalent courses and credit at MSUM. While every effort is made to keep this information up-to-date, scores and equivalencies may be subject to change.

| IB Exam - Standard Level (SL), Higher Level (HL) | MSUM Equivalency | Credit Hours | LASC Goal(s) |
|---|---|---|---|
| Biology (HL) | Elective | 3 | Goal 3L |
| Biology (SL) | Elective | 2 | |
| Business Management (HL) | Elective | 3 | |
| Business Management (SL) | Elective | 2 | |
| Chemistry (HL) | Elective | 3 | Goal 3L |
| Chemistry (SL) | Elective | 2 | |
| Computer Science (HL) | Elective | 3 | |
| Computer Science (SL) | Elective | 2 | |
| Dance (HL) | Elective | 3 | |
| Dance (SL) | Elective | 2 | |
| Design Tech (HL) | Elective | 3 | |
| Design Tech (SL) | Elective | 2 | |
| Economics (HL) | Elective | 3 | Goal 5 |
| Economics (SL) | Elective | 2 | |
| Environmental Systems & Societies (SL) | Elective | 2 | |
| Extended Essay | Elective | 3 | |

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|---|---|---|---|
| Film (HL) | Elective | 3 | |
| Film (SL) | Elective | 2 | |
| Further Mathematics (HL) | Elective | 3 | |
| Further Mathematics (SL) | Elective | 2 | |
| Geography (HL) | Elective | 3 | Goal 5 |
| Geography (SL) | Elective | 2 | |
| Global Politics (HL) | Elective | 3 | |
| Global Politics (SL) | Elective | 2 | |
| History (HL) | Elective | 3 | Goal 5 |
| History (SL) | Elective | 2 | |
| History of East & SE Asia, Oceania (HL) | Elective | 3 | |
| History of Europe (HL) | Elective | 3 | Goal 5 |
| History of the Americas (HL) | Elective | 3 | Goal 5 |
| History of Asia/Middle East (HL) | Elective | 3 | Goal 8 |
| History of Africa (HL) | Elective | 3 | Goal 8 |
| Info Tech Global Society (HL) | Elective | 3 | Goal 8 |
| Info Tech Global Society (SL) | Elective | 2 | |
| Islamic History (HL) | Elective | 3 | Goal 8 |
| Islamic History (SL) | Elective | 2 | |
| Literature & Performance (HL) | Elective | 3 | |
| Literature & Performance (SL) | Elective | 2 | |

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|---|---|---|---|
| Mathematic Studies (SL) | Elective | 2 | |
| Mathematic Methods (SL) | Elective | 2 | |
| Mathematics (HL) | Elective | 3 | |
| Mathematics (SL) | Elective | 2 | |
| Music (HL) | Elective | 3 | |
| Music (SL) (group) | Elective | 2 | |
| Music (SL) (composition) | Elective | 2 | |
| Music (SL) (solo) | Elective | 2 | |
| Philosophy (HL) | Elective | 3 | Goal 6 |
| Philosophy (SL) | Elective | 2 | |
| Physics (HL) | PHYS 200 | 3 | |
| Physics (SL) | Elective | 2 | |
| Psychology (HL) | Elective | 3 | Goal 6 |
| Psychology (SL) | Elective | 2 | |
| Sociology Cultural Anthropology (HL) | SOC 110 | 3 | |
| Sociology Cultural Anthropology (SL) | Elective | 2 | |
| Sports, Exercise and Health (SL) | Elective | 2 | |
| Theatre Arts (HL) | Elective | 3 | |
| Theatre Arts (SL) | Elective | 2 | |
| Theory of Knowledge | Elective | 3 | |
| Visual Arts (HL) | Elective | 3 | |
| Visual Arts (SL) | Elective | 2 | |
| World Cultures (HL) | Elective | 3 | Goal 8 |

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|---|---|---|---|
| World Cultures (SL) | Elective | 2 | |
| World Religions (SL) | Elective | 2 | |
| World Studies Extended Essay | Elective | 3 | |
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| Languages (all HL) *exceptions listed below | Elective | 3 | |
| Languages (all SL) *exceptions listed below | Elective | 2 | |
| | | | |
| Spanish B (SL) | SPAN 101 | 4 | |
| Spanish B (HL) | SPAN 101/SPAN 102 | 6 | |
| Japanese B (SL) | JAPN 101 | 4 | |
| Japanese B (HL) | JAPN 101/JAPN 102 | 8 | |

**College Level Examination Program (CLEP)**
CLEP (College Level Examination Program) is a testing program of The College Board designed to measure prior learning. A student may earn college credits by achieving a specified level of performance on a CLEP examination.

In accordance with Minnesota State system policy (3.33), MSUM will grant college credit to students who earn a score of 50 or higher on CLEP examinations, with the exception of Level 2 foreign language exams, for which a minimum score of 60 for German, 59 for French, and 63 for Spanish is required. CLEP exams will be granted the same number of credits as the course they replace. If MSUM does not have an equivalent course, free elective credit may be awarded. Credit will be awarded only if students achieve standard scores recommended by the Council on College-Level Examinations. However, credit will not be given to students who have previously or are currently enrolled in courses in the same subject.

MSUM does not accept CLEP credits after a student's first semester at the university.

Credit earned by CLEP exams may be applied to Liberal Arts and Sciences Curriculum but may not be applied to a major curriculum except with departmental approval. Credit earned through CLEP exams is not resident credit and may not be used to satisfy resident credit requirements for graduation.

The policies and procedures concerning the awarding of this credit may be found on the Testing and Placement website. The following CLEP subjects and scores are used to award equivalent courses and credit at MSUM. While every effort is made to keep this information up-to-date, scores and equivalencies may be subject to change.

| **CLEP Examination** | **Accepted Score** | **Equivalent MSUM Course** | **Credit Hours** | **LASC Goal** |
|---|---|---|---|---|
| American Government | 50 | POL 120 | 3 | GOAL 5 |
| American Literature | 50 | Elective | 6 | GOAL 6 |
| Analyze and Interpret Literature | 50 | Elective | 4 | GOAL 6 |
| Calculus | 50 | MATH 261 | 4 | GOAL 4 |
| College Math | 50 | MATH 110 | 3 | GOAL 4 |
| College Algebra | 50 | MATH 127 | 3 | GOAL 4 |

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|---|---|---|---|---|
| College Composition | 50 | ENGL 101 | 3 | GOAL 1B |
| College Composition Modular | 50 | ENGL 101 | 3 | GOAL 1B |
| English Literature | 50 | Elective | 4 | GOAL 6 |
| Financial Accounting | 50 | Elective | 3 | |
| French Level 1 | 50 | Elective | 6 | |
| French Level 2 | 59 | Elective | 12 | |
| Humanities | 50 | Elective | 3 | GOAL 6 |
| General Biology | 50 | Elective | 4 | GOAL 3 |
| Natural Sciences | 50 | Elective | 6 | GOAL 3L |
| General Chemistry | 50 | CHEM 102 | 4 | |
| German Level 1 | 50 | Elective | 6 | |
| German Level 2 | 60 | Elective | 12 | |
| History of the US 1: To 1877 | 50 | HIST 121 | 4 | GOAL 5 |
| History of the US 11: 1865-Present | 50 | HIST 122 | 4 | GOAL 5 |
| Human Growth & Development | 50 | PSY 202 | 3 | GOAL 5 |
| Info Systems & Computer Apps | 50 | Elective | 3 | |

| | | | | |
|---|---|---|---|---|
| Intro to Educational Psychology | 50 | Elective | 3 | |
| Intro to Psychology | 50 | PSY 113 | 3 | GOAL 5 |
| Intro to Business Law | 50 | Elective | 3 | |
| Intro Sociology | 50 | SOC 110 | 3 | GOAL 5 |
| Pre-calculus | 50 | MATH 142 | 3 | GOAL 4 |
| Principles of Accounting | 50 | Elective | 6 | |
| Principles of Macroeconomics | 50 | ECON 204 | 3 | GOAL 5 |
| Principles of Management | 50 | MGMT 260 | 3 | |
| Principles of Marketing | 50 | Elective | 3 | |
| Principles of Microeconomics | 50 | ECON 202 | 3 | GOAL 5 |
| Social Sciences & History | 50 | Elective | 6 | GOAL 5 |
| Spanish Level 1 | 50 | SPAN 101 & SPAN 102 | 6 | GOAL 8 |
| Spanish Level 2 | 63 | SPAN 101, SPAN 102, SPAN 201, & SPAN 202 | 14 | GOAL 8 |

| | | | | |
|---|---|---|---|---|
| Western Civilization I | 50 | Elective | 4 | GOAL 5 |
| Western Civilization II | 50 | Elective | 4 | GOAL 5 |

**Dantes (DSST) Examinations**

MSUM recognizes the DSST (Dantes) examination, which was originally designed for the military as a way to provide individuals an opportunity to obtain college level credit for what they have learned in nontraditional ways. Now available for civilian use, the DSST Test Control Officer (TCO) administers the exams on more than 560 military installations and official DSST test centers. The main users of the exams include adult education programs, U.S. Department of Defense, and two- and four-year colleges and universities.

In accordance with Minnesota State system policy, students must receive a minimum score on the examinations to qualify for possible awarding of credit and advanced placement, which is determined by the appropriate academic department on campus. If MSUM does not have an equivalent course, free elective credit may be awarded. Credit earned through DSST may not be used to satisfy residence-credit requirements for graduation.

To receive this credit, students must have an official score report sent to MSUM. The policies and procedures concerning the awarding of this credit may be found on the Testing and Placement website. While every effort is made to keep this information up-to-date, scores and equivalencies may be subject to change.

| **DSST Examination** | **Accepted Score** | **Equivalent MSUM Course** | **Credit Hours** | **LASC Goal(s)** |
|---|---|---|---|---|
| A History of the Vietnam War | 400 | Elective | 3 | |
| Art of the Western World | 400 | Elective | 3 | GOAL 6 |
| Astronomy | 400 | AST 102 | 3 | GOAL 3 |
| Business Ethics and Society | 400 | Elective | 3 | |
| Business Mathematics | 400 | Elective | 3 | |
| Civil War and Reconstruction | 400 | Elective | 3 | GOAL 5 |
| Computing Information & Technology | 400 | Elective | 3 | |
| Criminal Justice | 400 | Elective | 3 | |
| Environment and Humanity | 400 | Elective | 3 | GOAL 10 |
| Ethics in America | 400 | Elective | 3 | GOAL 9 |
| Foundations of Education | 400 | Elective | 3 | |
| Fundamentals of College Algebra | 400 | MATH 127 | 3 | GOAL 4 |
| Fundamentals of Counseling | 400 | Elective | 3 | |
| Fundamentals of Cybersecurity | 400 | Elective | 3 | |
| General Anthropology | 400 | Elective | 3 | |
| Health & Human Development | 400 | Elective | 3 | |

| | | | | |
|---|---|---|---|---|
| Human Resources Management | 400 | Elective | 3 | |
| Human/Cultural Geography | 400 | Elective | 3 | GOAL 8 |
| Intro to Business | 400 | Elective | 3 | |
| Intro to Law Enforcement | 400 | Elective | 3 | |
| Intro to World Religions | 400 | Elective | 3 | GOAL 8 |
| Lifespan Development Psychology | 400 | Elective | 3 | |
| Management Information Systems | 400 | Elective | 3 | |
| Money and Banking | 400 | Elective | 3 | |
| Organizational Behavior | 400 | Elective | 3 | |
| Personal Finance | 400 | Elective | 3 | |
| Physical Geology | 400 | Elective | 3 | |
| Principles of Finance | 400 | Elective | 3 | |
| Principles of Physical Science I | 400 | PSCI 170 | 3 | GOAL 3 |
| Principles of Public Speaking | 400 | COMM 100 | 3 | GOAL 1A |
| Principles of Supervision | 400 | Elective | 3 | |
| Principles of Statistics | 400 | Elective | 3 | GOAL 4 |
| History of the Soviet Union | 400 | Elective | 3 | GOAL 8 |
| Substance Abuse | 400 | Elective | 3 | |
| Technical Writing | 400 | Elective | 3 | |

**Military Training or Service Credit**
MSUM uses the American Council on Education's (ACE) *"A Guide to the Evaluation of Educational Experiences in the Armed Services"* to evaluate military learning. ACE translates military courses and occupations into academic credit, provides guidelines to interpret and recommend credit for formal service-school courses, and demonstrates proficiency in military occupations and college-level tests.

Veterans with certain military service training may be determined to have met Goal Area 9 (Ethical and Civic Responsibility) in MSUM's Liberal Arts & Sciences Curriculum. See the information for the appropriate military branch below for documentation requirements for this and other credit opportunities.

**Credit for Army training** may be obtained by requesting an official transcript from the Army/American Council on Education Registry System be sent to the Registrar's Office.

**Credit for Sailor and Marine training** may be obtained by requesting an official transcript from the Sailor/Marine American Council on Education Registry Transcript (SMART) be sent directly to the Registrar's Office. Service members must have separated or retired from active duty on or after October 1, 1999.

**Credit for Air Force training** may be obtained by submitting a request to the Community College of

the Air Force or go to your nearest Air Force base education office. Service members with credits/training for the Army pre-1981 and Sailors/Marines pre-1999 must request a DD295 and submit it for your college credit award review. Students should discuss the possibility of such credit with the MSUM Registrar.

For more information go to the following websites:

Minnesota State Resources for Veterans and Service Member

American Council on Education (ACE)

Community College of the Air Force

## Academic Honors

**Dean's List**

The Dean's list, published at the close of the fall and spring semesters, includes all students who are in a degree seeking status and have maintained a GPA of at least 3.25 for that semester while completing a minimum of 12 graded credits.

**Graduation Honors**

Students who complete at least 45 credits at MSUM and are candidates for baccalaureate degrees may graduate with the following honors:

- Cum Laude, representing a cumulative GPA of 3.4 or better;
- Magna Cum Laude, 3.6 or better; and
- Summa Cum Laude, 3.8 or better.

Such honors are computed only from the cumulative GPA at Minnesota State University Moorhead. Examination credits, AP, IB, and/or CLEP credits may not be counted toward the 45 credit total.

Such honors will only be granted with the initial MSUM baccalaureate degree. Subsequent completion of additional majors or degrees will not result in the granting of additional honors citations.

Transfer students who have enrolled for MSUM courses under the Tri-College University course exchange program may apply such MSUM courses to fulfill requirements for graduation with honors.

Some departments of study may award departmental honors to students who meet the requirements established by the departments.

## Graduation Requirements

**Associate Degree**

Minnesota State University Moorhead offers the two-year Associate in Arts (A.A.) degree in Liberal Arts. The degree requires:

- At least 60 semester credits, including at least 22 credits in courses taught by faculty awarding the degree (MSUM courses).
- A GPA of at least 2.00 in all MSUM courses applied to Liberal Arts and Sciences Curriculum (LASC), a 2.00 GPA in all courses applied to the A.A. degree, and a 2.00 in all courses taken at MSUM.
- Students who earn the A.A. degree must complete the LASC requirements (40 credits minimum) that includes English 101 (or an approved alternative) and two additional writing intensive (W) courses.
- Students who are admitted to and complete the associate degree and who decide to continue with a baccalaureate program, may do so by meeting all additional requirements for the bachelor's degree, including the restriction against using more than two LASC courses from the student's major rubric to fulfill the LASC requirements.
- Completion of the application for graduation, with the advisor approval, and submission to the Registrar's Office.

**Baccalaureate Degree**

- At least 120 credits are required for all baccalaureate degrees. At least 40 semester hours of upper division courses (300 / 400 level) are required.
- Accumulation of 120 credits alone does not result in a degree. Credits must be

earned as part of a baccalaureate program approved by the Board of Trustees of the Minnesota State Colleges and Universities system. Students are responsible for making certain their coursework fulfills requirements for a major in their designated degree.

- Candidates must have a GPA of at least 2.0 for all credits applied to the degree program. Students should check with the major department to find out specific graduation GPA requirements.
- Freshmen and transfer students who have not completed an approved general education curriculum will satisfy the University's general education requirement by completing the requirements of the Liberal Arts and Sciences Curriculum (LASC). Completion of LASC requires 40 credits with a cumulative average GPA of at least 2.0 for all courses applied to the requirement. No more than two LASC courses from the student's major rubric may be applied to the LASC requirements. Transfer students must have an average GPA of at least 2.0 for all courses applied to LASC.
- All students entering with less than 32 transferrable credits must complete five writing intensive (W) courses at MSUM. Refer to the Registrar's Office webpage for a list of approved courses.

    - ENGL 101 (or an approved alternative).
    - One 300/400 level writing intensive course designated by the student's major.
    - One writing intensive course in LASC.
    - Two writing intensive courses at the 200-level or higher, only one of which may hold the rubric of the student's major.

- All students entering with 32 or more transferable credits must complete two writing intensive courses at MSUM:

    - One 300/400 level writing intensive course designated by the major.
    - One writing intensive course at the 200-level or higher.

***If a student has multiple majors, they must fulfill the university writing-intensive course requirements as well as the upper level writing requirement of each major.***

- All students entering with less than 24 transferrable credits must complete a freshmen seminar course.
- The degree program must include at least one major with a GPA of 2.0 or above. Certain majors may specify a higher GPA.
- No minor is required, but a GPA of at least 2.0 must be attained in any minor presented for graduation.
- Candidates must be enrolled as a resident student for at least 30 credits taught by the faculty awarding the degree (MSUM courses), and eight of the last twelve credits must be awarded by MSUM. At least twelve credits must be earned from the MSUM department which awards the major.
- Undergraduate students may apply graduate credits taken at MSUM towards their undergraduate degree with approval from the Office of Graduate and Extended Learning and their undergraduate program. Graduate level courses may be transferred from sending institutions towards undergraduate degree requirements with approval from the student's undergraduate program.
- An application for graduation must be submitted to the Registrar's Office prior to the semester in which candidates expect to complete graduation requirements. Students must secure the approval of each major advisor before submitting the application for graduation. Candidates for graduation must have official transcripts from all

previous post-secondary institutions on file in the Registrar's Office. No student will be eligible for graduation while in special or non-degree status.
- Candidates for graduation with a teaching major shall fulfill all teacher licensure requirements.

**First Year Seminar Graduation Requirement**
All new entering undergraduate students are required to successfully complete a First Year Seminar course. Successful completion of the course is a graduation requirement. New students who have completed 24 or more transferable credits will be exempt from this requirement. Courses will be designated as such for the First Year Experience committee and denoted in each term schedule.

**Multiple Majors and Multiple Degrees**
Students completing two or more majors with different degree designations will be awarded the more appropriate degree, except that the B.S. degree shall be given if one major is in a field of professional teaching.

Students who seek more than one baccalaureate degree (different designation, i.e. B.A. and B.S.) will be required to complete at least 30 credits beyond the minimum of 120 or 128 credits applied to the first degree.

Students who hold a previous baccalaureate degree from Minnesota State University Moorhead or from another institution whose degree is recognized by MSUM may earn an additional bachelor's degree (degree name must be different than the initial degree, i.e. B.A. and B.S.) by:

- Completing at least 30 resident credits at MSUM;
- Meeting all MSUM course requirements for the degree program, including at least six credits from the MSUM department awarding the degree and including an approved major and teacher education requirements for any teaching major; and
- Maintaining at least a "C" average in all studies at MSUM.

Students with a previous Minnesota State University Moorhead degree may add another major or minor by completing any additional requirements as certified to the Registrar by the department offering the major or minor and by the education department in the case of any teaching major.

Students completing two majors must meet departmental requirement for each major.

**Four-Year Graduation Guarantee**
Minnesota State University Moorhead guarantees that all undergraduate students wishing to graduate in four years will be provided necessary courses as required by the University in the student's selected major field of study. Any required courses needed beyond four years will be provided to the student tuition-free. See the Dean of the College for more information.

Conditions:

The graduation guarantee is only effective if the following conditions are met:

- All fall semester freshmen wishing to participate in the graduation guarantee program must complete the guarantee application form and officially declare a major before the drop deadline of fall semester.
- All participating students must be qualified to begin without remedial courses as determined by the department and the university.
- All participating students must register for classes each semester and have their class schedules approved by their official departmental advisor.
- All participating students must meet any program GPA or grade requirements.
- All participating students must successfully complete an average course load of 16 credits, or 15 credits for B.A., each semester (32 credits, or 30 credits for B.A./year).

- Participating students selecting a major requiring a minor must choose the minor no later than the end of their first year.
- Any courses failed or repeated will void the guarantee.
- Any change in major, options, or minor will void the guarantee.
- Required internships and research projects are beyond the scope of the guarantee (except for chemistry research).

**Posthumous Baccalaureate Degree**
When a student has made considerable progress towards the completion of a degree, Minnesota State University Moorhead will extend to the campus community, family and friends an opportunity to share in the student's academic success. The following minimum requirements must be met to award a posthumous baccalaureate degree.

- The student must be enrolled at MSUM at the time of death (excluding summer), or their continuous enrollment was interrupted by their injury, illness, military service, or other extenuating circumstances.
- The student must have completed at least 70% of the credit hour requirements of an academic program.
- The student must have completed at least twelve credits from the department which awards the major.
- The student must have a minimum 2.0 cumulative GPA or meet the GPA requirements of their program in the case of programs with higher GPA requirements.
- The student must be in good academic standing and not on university disciplinary probation.

## Academic Standing Policy

This policy applies to all undergraduate students admitted to Minnesota State University Moorhead. This policy is specific to academic standing. Financial Aid has different standards that are monitored separately.

The university requires students to make and maintain satisfactory academic progress. This means there are cumulative GPA thresholds and a percent of credit completion that students must achieve.

This policy is implemented as mandated by Minnesota State Colleges and Universities Board Policy 2.9.

**Responsibility and Notice of Academic Standing**
Students are responsible for checking on their academic and hold status each term. Students can determine their academic status by monitoring the "Holds" section of the online web registration program, or by comparing their own progress to the policy standards.

Students who are placed on warning, probation and suspension are notified by email from the Academic Support Center. The email is sent to the student's university-assigned email address. Students are responsible for monitoring their official university email for messages.

**GPA and Percent Completion**
Warning, probation and suspension are determined after the grading period at the end of each term, including summer. In order to remain in good academic standing, undergraduate students must meet the GPA and percent completion requirements listed below. Students who fall below the standards will be placed on status based on the guidelines below.

**GPA**
Only MSUM courses (numbered 100 and above) are computed in the GPA. Accepted transfer credits count toward the total number of attempted credits, but transfer grades do not count in the student's MSUM GPA. To remain in good academic standing the requirements are:

- At 0 to 29 total attempted credits, a student must have a cumulative GPA of 1.8 or higher.

- At 30 to 59 total attempted credits, a student must have a cumulative GPA of 1.9 or higher.
- At 60 or more attempted credits, a student must have a cumulative GPA of 2.0 or higher.

(A GPA calculator is available on the Academic Support Center website)

**Percent Completion**

- All students must complete 66.667% of the sum of all MSUM credits attempted plus all transfer credits accepted.
- MSUM credits attempted include all MSUM courses on a student's official record, including withdrawals, repeated courses, and grades of incomplete.
- Courses taken for audit are not counted as credits attempted or earned for Satisfactory Academic Progress.
- MSUM withdrawals, grades of F, FN, NC, incompletes, and missing grades count against percent completion because they result in zero credits earned for that course.
- Transfer credits accepted and earned credits listed on the MSUM transcript are included in the percent completion calculation as attempted credits.
- Percent completion is calculated by dividing the number of earned credits by the sum of MSUM attempted credits plus transfer credits accepted.

**Academic Warning/Probation/Suspension Holds**

Students who are not in good academic standing during spring term will not be allowed to enroll in any summer sessions until their academic status has been determined from spring term.

**Good Standing**

Students whose cumulative GPA and completion rate meet the minimum cumulative standards are considered in good standing.

**Academic Warning**

Students who are in good standing at the beginning of the term but fall below the minimum cumulative GPA or cumulative completion rate at the end of the term will be placed on warning. Students on warning will be allowed to enroll for the next semester, with the exception of summer term. Students on warning may not enroll in summer courses that begin prior to June 1st.

Students on warning at the beginning of a term who do not meet the minimum cumulative GPA and/or cumulative completion rate at the end of the term will be suspended.

Students placed on academic warning are considered in good academic standing per NCAA Bylaw 14.4.3.1.

**Suspension**

Students who are suspended for the first time may not return to MSUM for one term (not including summer term). Second and subsequent suspensions last for one calendar year.

Students who are suspended may appeal their status to the Financial Aid and Academic Suspension Appeals Committee. Guidelines on this process are outlined within the Satisfactory Academic Progress Procedures which can be found on the Academic Support Center website. This appeal should be done as soon as the student's grades are posted and must be submitted by the deadline set each term by the Academic Support Center.

Students who do not submit an appeal by the deadline will have their registration cancelled from subsequent semester classes.

**Probation**

If a student's suspension appeal is granted, they will be placed on probation and will be given minimum semester standards that must be met.

Students who are readmitted after academic suspension will be placed on academic probation. They will be given minimum semester standards that must be met.

Students on probation at the beginning of a term who do not meet the minimum cumulative

standards will be allowed to enroll for the next semester if they have met the minimum semester standards, with the exception of summer term. Students on probation may not enroll in summer courses that begin prior to June 1st.

## Course Placement Testing Policy

### English Placement

| **English Placement If these requirements are met:** | **The student qualifies to begin at the selected X, or preceding ENGLISH course(s).** | | | |
|---|---|---|---|---|
| | **ENGL 099** | **ENGL 101 (small section)** | **ENGL 101 (regular section)** | **ENGL 201** |
| *Any of the following:*<br>ACT = 17<br>SAT Evidence-Based Reading & Writing < 480<br>SAT Writing < 430<br>Next Generation Accuplacer Reading = 249<br>Classic Reading Comprehension = 78 | **X** | | | |
| *Any of the following:*<br>ACT = 18-20 or<br>Next Generation Accuplacer Reading = 250-263 or<br>HS GPA of 2.5 or above and one of the following:<br>• ACT English 16-17<br>• SAT Evidence-Based Reading & Writing 440-479<br>• Next Generation Accuplacer Reading 236-249<br>• Classic Reading Comprehension of 78-85 | | **X** | | |
| *Any of the following:*<br>ACT English = 21<br>SAT Evidence-Based Reading & Writing = 480<br>SAT Writing Score = 501<br>Next Generation Accuplacer Reading > 264<br>Classic Reading Comprehension = 97 | | | **X** | |
| ACT English = 26 or<br>SAT Evidence-Based Reading & Writing = 600 | | | **X** | **X** |
| ESL Accuplacer Scoring: Combined Reading Skills, Language Usage, and Sentence Meaning = 330 | | **X** | | |
| | | | | |

In order to be considered valid for placement purposes, ACT/SAT scores and ACCUPLACER scores must have been earned within five years from the start of the class. High school GPA must be within the last ten years. The English Placement policy will be reviewed every two years.

English Placement for International Students who do not have English as their first language.

- Students completing the ESL version of the Accuplacer with a combined Reading Skills, Language Usage, and Sentence Meaning score of 330 or higher will be placed into ENGL 101 small section

### Math Placement

| **Mathematics Placement If these requirements are met:** | **The student qualifies to begin at the selected X, or preceding MATH course(s).** | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **090A** | **090** | **095** | **099** | **105** | **110** | **134** | **127** | **227** | **142** | **143** | **210** | **229** | **234** | **261** |
| QAS < 250 | **X** | | | | | | | | | | | | | | |
| AR = 57 or AR + EA = 100 or | | **X** | **X** | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 250 = QAS < 255 | | | | | | | | | | | | | | | |
| ACT Math = 19 or EA = 76 or QAS = 255 or 234 = AAF = 249 | | | | X | X | X | | | | | | | | | |
| ACT Math 20-21 or<br><br>HS GPA > or equal to 2.7 and 236 = AAF = 249<br><br>or ACT Math = 22<br><br>or IA = 60 or AAF = 250 | | | | | | | X | X | | | | | | | |
| ACT Math = 23 or IA = 60 or AAF = 255 | | | | | | | | | X | | | | | | |
| ACT Math = 24 or CLM = 50 or AAF = 255 | | | | | | | | | | X | X | X | X | X | X |
| *MCA = 1146 | | | | | X | | | X | | | | | | | |
| *MCA = 1158 or 1152 = | | | | | | | | X | | | | | | | |
| MCA = 1157 and HS GPA = 2.7 | | | | | | | | | | | | | | | |

Two sets of Accuplacer placement scores are available:

- Classic Accuplacer
  - Arithmetic (AR)
  - Elementary Algebra (EA)
  - Intermediate Algebra (IA)
  - College Mathematics (CLM)
- Next Generation Accuplacer (NGA)
  - Arithmetic (AR)
  - Quantitative Reasoning, Algebra, and Statistics (QAS)
  - Advanced Algebra Functions (AAF)

ACT Math and SAT Math Scores Comparison: ACT 19 = SAT 510; ACT 22 = SAT 540; ACT 23 = SAT 560; ACT 24 = SAT 580.

**In order to be considered valid for placement purposes, ACT, MCA and SAT scores must have been earned five years from the start of class, and Accuplacer scores must have been earned within two years from the start of class.**

*MCA, Minnesota Comprehensive Assessment, Mathematics score will be used for only MATH105, MATH134, and MATH127 placement.

## Course Levels and Types

**Course Level/Uniform Numbering Policy**

**Numbering System:**

001-099 Developmental or basic skills courses. These courses are not applicable to Minnesota State University Moorhead degree requirements.
100-199 Undergraduate courses primarily for students in their freshmen year.
200-299 Undergraduate courses primarily for students in their sophomore year.
300-399 Undergraduate courses primarily for students in their junior year.
400-499 Undergraduate courses primarily for students in their senior year. These courses may be

dual listed with 500-level graduate courses.
500-599 Entry level graduate courses. These courses may be dual listed with 400-level undergraduate courses and may include limited enrollments by undergraduates.
600-699 Graduate courses. Undergraduate enrollment is only by exception.
700-799 Graduate courses designed for graduate students only.

**Explanation of Course Levels:**

Lower-Division Courses:

100-299 These courses are generally considered lower division and typically require no or limited prerequisite background in the discipline. These courses are introductory or part of a series of basic courses in a discipline.

Lower division courses increase the knowledge students have of subjects with which they are already familiar, introduce them to new subjects, and/or establish a foundation for study of a major subject in depth. They are courses that may be counted in majors, minors, electives, and/or the Liberal Arts and Science curriculum. They are used at the basic level in baccalaureate programs, and are used in the Associate of Arts Degree in the Liberal Arts.

Lower division courses usually are tightly structured with the expectation students are to receive considerable instruction guidance in the learning process. Instruction at this level normally is informational and emphasizes learning skills; it usually entails the use of text materials or resources provided by the instructor or acquired through library or other resources. The intellectual skills emphasized in lower division courses include comprehension, analysis, synthesis, evaluation, and application of knowledge, but these competencies are not stressed to the same degree as they are in upper division courses. Evaluation of student performance at this level typically tests information, concepts, and skills, but may include aspects identified for upper division courses as well.

Upper-Division Courses:

300-499 Courses at the 300 and 400-level are considered upper-division courses. Typically they build on the background of courses at the lower-division. They may have one or both of the following characteristics:

- They require analysis, synthesis, and/or integration of knowledge and skills from several specific areas in a discipline or from related disciplines.
- They are built on a foundation of prerequisite lower division courses in liberal studies, a specific discipline, or a related field of study.

Upper division courses enable students to study a major field in depth by building upon and integrating the knowledge gained in lower division courses. Upper-division courses may also serve as an introduction to sub-fields within a discipline. Upper-division courses are characterized by a more flexible structure that allows for a variety of approaches to the subject matter, a wide range of course material, an emphasis on independent study and/or research in the laboratory, library, studio, or community. Students are expected to accept increasing responsibility for their own learning both inside and outside the classroom. Upper-division courses typically emphasize comprehension, analysis, synthesis, evaluation, and application of knowledge. Evaluation of student performance at this level stresses such outcomes as comprehension and understanding of concepts, the ability to solve problems, and the ability to integrate knowledge.

Upper-division courses may be counted in majors, minors, electives, and/or the Liberal Arts and Science curriculum. They are used at the upper-level in baccalaureate degree programs.

Graduate Courses:

500-799 Courses at the 500, 600, and 700-level are considered graduate courses. Typically, graduate courses are restricted to students who have successfully completed a baccalaureate degree. No

more than 50 percent of the credit hours in any graduate program can be at the 500-level. They also may have one or more of the following characteristics:

- They typically build upon a foundation of undergraduate courses in a single or related discipline.
- They require intellectual maturity of students and stress independent study.
- They emphasize the use of information resources, studio, laboratory, community, and field-based facilities in ways commensurate with the level of learning.

The primary function of graduate courses is to broaden the perspective and deepen the knowledge students have of a particular discipline or professional field of study, or to provide students preparation in an advanced professional field that requires foundational knowledge and experience in a related discipline or field of study. They are used in master's and specialist programs, and may be used for special students or special post-baccalaureate certificate programs and studies.

Graduate courses are structured in a manner that allows for a variety of approaches to the subject matter, a wide range of source material, considerable student interaction, and a significant emphasis on independent study and/or research in the library, laboratory, studio, or community. They are designed to extend the knowledge and intellectual maturity of students beyond the baccalaureate level. They are intended for students who are capable of analyzing, exploring, questioning, evaluating, and synthesizing knowledge. Evaluation of student performance in graduate courses entails a variety of means and is commensurate with the level of complexity of these courses.

**Multiple Numbered Courses:**
Multiple numbered courses are used to manage curriculum and faculty assignments. In this approach, a given body of content is available in separately approved courses at the two different levels. It is assumed each of those courses is needed, one for each level of curriculum. However, in the context of curriculum and resource management, the institution may make the decision to teach those two courses simultaneously by one faculty member. Different levels of expectations would be stated for the students in separate course syllabi or in a segment of a common syllabus. The syllabi are required to outline these different expectations based on the characteristics described in A, B and C above and would be made available and on file. Multiple numbered courses must be properly approved, documented, and monitored for quality and maintenance of standards. Two types of multiple numbered courses are acceptable. Undergraduate studio and ensemble courses may be multiple numbered (100, 200, 300, 400), and senior and entry level graduate courses may be dual numbered (400/500).

**Uniform Numbering Conventions:**
The following course numbers are used University-wide. Curriculum approval is not required to offer the following types of courses.

X69 **Internship** – course designed to provide practical participation under professional supervision in selected situations to gain experience in the application of concepts, principles and theories related to the student's area of specialization. 1-12 credits.

X90 **Topics** – (Special Topics: [name determined by department]; may be repeated when the topic changes.) Topics courses, under the same title, may be offered for a maximum of three semesters before formal approval is required, at which time the course must be reported through the University curriculum approval process. 1-5 credits.

X92 **Capstone/Senior Seminar** – serves as the culminating course for academic study in a student's major. 1-5 credits.

X94 **Undergraduate Research** – Individual exploration of topical area through research, reading or field placement. 1-5 credits.

X95 **Portfolio** – culmination portfolio for research project at the graduate level. 1-6 credits.

X96 **Project/Action Research** – a non-thesis capstone research program at the graduate level (Plan B). 1-6 credits.

X97 **Independent Study** – selected research for individual students under faculty supervision. 1-6 credits.

X98 **Continuing Registration** – used at the graduate level for registration after completion of all course requirements, including thesis or capstone project; required during the semester of the oral defense examination. Enrollment may not be used to fulfill degree credit requirements or financial aid minimum requirements. 1-6 credits.

X99 **Continuing Studies** – Courses numbered X99 are reserved for institution-wide assignment for Continuing Studies and Workshops. In most instances 499 is recommended for undergraduate level and 599 for graduate level. 600 and 700 level will not be used. These courses have a different tuition rate. 1-6 credits.

X99 **Thesis** – used at the graduate level for research and writing of the master's thesis under the supervision of the faculty chair and the thesis committee. Used only at the 600 and 700 level. 1-6 credits.

**Travel Study Courses Policy**

A travel study course is defined as a faculty-led, credit-bearing experience, of generally less than six weeks, in which the majority of the instruction is provided at an off-campus location. Travel study courses may be conducted within the United States or abroad. Field trips conducted as part of a campus-based class are excluded from this policy. All travel study courses must be proposed and approved using standard Minnesota State University Moorhead (MSUM) forms. The deadline for proposing a travel study course is during spring semester of the year preceding the course offering, usually in mid-late March.

Any faculty member, except adjunct faculty, may propose a travel study course. The faculty member must be employed by and contracted to MSUM at the time the course takes place. The course should be listed on the Faculty Assignment Record approved by the department. There should be one faculty member to every 12-15 students on a tour.

Travel study courses shall be taught using a course syllabus that follows the MSUM syllabus policy. Use of a -90 topics number is appropriate, but if the same course is offered more than three times with the topics number, the course must be approved by the University Curriculum Committee as a regular course. In order for students to receive LASC credit, the course must be approved in advance of recruiting for the course by the University Curriculum Committee. LASC designation is not required and may not be applicable for all travel study courses.

Travel study courses should be offered for an appropriate number of credits, as determined by the academic department offering the course. In general, a one (1 )-credit course would have fifteen (15) contact hours; two (2) credits, thirty (30) contact hours; three (3) credits, forty-five (45) contact hours; and four (4) credits, sixty (60) contact hours. A contact hour consists of actual instructional time. It is expected that students spend additional time with the course material outside of contact hours with the instructor. Course work may be completed prior to the tour or following its completion.

Faculty shall select participants for the travel study course and will use a standard application form. All students must be registered for the course; community members must also register for the course, but they may choose to audit the course instead of receiving a grade. Students who have formal duties related to the tour, such as research assistant, are not required to register for the course.

Selection criteria should be clearly specified; relevant to the program; and applied in the same manner, to all. Eligibility requirements may be based on academic qualifications (which may include GPA and course prerequisites); or current status (e.g., not currently on academic probation);

demonstrated leadership skills, knowledge or commitment to cultural concerns, or other criteria relevant to the tour. Faculty may not collect or use "protected" class information as selection criteria (e.g., race, ethnicity, age or disability). Following their selection, accepted participants must complete appropriate health information forms, which includes information about an asserted disability. Those individuals are directed to contact the campus disabilities services office to verify the existence of a disability and what kind of reasonable accommodation is requested.

The budget for the course shall include all tuition, fees, expenses, and deposits paid by the students. Any deposits shall be applied directly to the program fee. Airline tickets purchased are the property of the participants. Any change or cancellation fees are additional charges paid by the participant.

University funds may not be used to subsidize travel for non-university purposes, including family members who have no assigned responsibilities. Faculty cannot use "free" trip slots or other incentives that are sometimes offered by travel organizations for family members. Children of faculty under the age of eighteen (18) must be accompanied by another adult. Family members must also carry insurance that includes evacuation and repatriation.

Payments to faculty for work that is not part of the normal workload must be made as "extra duty days." Faculty may not receive payments of any kind from a tour company, host institution, or other organization.

Faculty members are encouraged to plan their trip using a reputable travel agency to the extent possible. Business Services can provide a list of reputable agencies that do business with MSUM. Due diligence must be taken to ensure that any other travel agents or venue planners used are reputable and legitimate. The appropriate MSUM personnel must sign contracts on behalf of the university. Typically, this will be a college Dean.

Prior to travel, faculty members must review any applicable travel policies and procedures with their students and provide information required by applicable policies and procedures to MSUM officials.

Prior to travelling abroad, all participants, including faculty, students, and community members, are required to have insurance that includes repatriation and evacuation coverage. Faculty and students are encouraged to use the Minnesota State system-provided insurance policy.

Applicable MSUM and Minnesota State system policies and relevant information which shall be followed, includes but is not limited to: Minnesota State Travel Management Policy & Procedure, Minnesota State Education Abroad Policy & Procedure, Foreign Currency reimbursement conversion, U.S. State Department Travel Warnings, Credit Card use, Conflict of interest, the Alcohol and Other Drug Policy, and the Vehicle Use Policy.

**Course Removal**

Courses that have not been taught during a five (5)-year span will be automatically removed from the curriculum by the Registrar.

Should a course not be taught in a three (3)-year period, the responsible department and dean will receive a notice from the Registrar the course will be removed if it’s not taught over the following two (2) – year period.

Departments have two (2) calendar years to reinstate a course removed due to five (5)-year inactivity. During this time, the department may request the course be added back into circulation by contacting the Registrar's Office. The course may not be changed in any way. The Registrar's Office will inform faculty senate the course is again active. The course must be offered within the next calendar year or it will be removed from curriculum.

Certain types of courses are not subject to this policy ie. Topics, Internship/Practicums, Independent and Individual Study, courses open to

enrollment by one or more students for a mentored or guided learning experience.

## Common Undergraduate Degree Requirements

**Liberal Arts and Sciences Curriculum (LASC)**
Liberal Arts and Sciences Curriculum (LASC) provides a broad foundation of skills, information and knowledge that goes beyond your chosen academic field. It will foster your ability to communicate effectively, to think critically and to problem solve. You will gain knowledge, skills and attitudes central to living in and contributing to a diverse world and the perspective to understand and appreciate the world's nations and peoples from the ethical dimensions of personal and political decisions to the challenges of responding to environmental variables.

While the LASC is one component of a baccalaureate degree, the other being your major, courses may also apply to a minor or emphasis as well as being used as "general electives."

Students should consult early and often with their academic advisor to ensure effective planning.

**Goal Areas**

**Goal 1A: Oral Communication:** To develop writers and speakers who use the English language effectively and who read, write, speak and listen critically. As a base, all students should complete introductory communication requirements early in their collegiate studies. Writing competency is an ongoing process to be reinforced through writing intensive courses and writing across the curriculum. Speaking and listening skills need reinforcement through multiple opportunities for interpersonal communication, public speaking and discussion.

**Goal 1B: Written Communication:** To develop writers and speakers who use the English language effectively and who read, write, speak and listen critically. As a base, all students should complete introductory communication requirements early in their collegiate studies. Writing competency is an ongoing process to be reinforced through writing intensive courses and writing across the curriculum. Speaking and listening skills need reinforcement through multiple opportunities for interpersonal communication, public speaking and discussion.

**Goal 2: Critical Thinking:** To develop thinkers who are able to unify factual, creative, rational, and value-sensitive modes of thought. Critical thinking will be taught and used throughout the general education curriculum in order to develop students' awareness of their own thinking and problem-solving procedures. To integrate new skills into their customary ways of thinking, students must be actively engaged in practicing thinking skills and applying them to open-ended problems.

**Goal 3: Natural Sciences:** 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. As a basis for lifelong learning, students need to know the vocabulary of science and to realize that while a set of principles has been developed through the work of previous scientists, ongoing scientific inquiry and new knowledge will bring changes in some of the ways scientists view the world. By studying the problems that engage today's scientists, students learn to appreciate the importance of science in their lives and to understand the value of a scientific perspective. Students should be encouraged to study both the biological and physical sciences.

**Goal 4: Mathematics / Logical Reasoning:** 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. Minnesota's public higher education systems have agreed that developmental mathematics includes the first three years of a high school mathematics sequence through intermediate algebra.

**Goal 5: History and the Social and Behavioral Sciences:** 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. Such knowledge will better equip students to understand themselves and the roles they play in addressing the issues facing humanity.

**Goal 6: The Humanities and the Fine Arts:** 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.

**Goal 7: Human Diversity:** To increase students' understanding of individual and group differences (e.g. race, gender, class) and their knowledge of the traditions and values of various groups in the United States. Students should be able to evaluate the United States' historical and contemporary responses to group differences.

**Goal 8: Global Perspective:** To increase students' understanding of the growing interdependence of nations and peoples and develop their ability to apply a comparative perspective to cross-cultural social, economic and political experiences.

**Goal 9: Ethical and Civic Responsibility:** 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.

**Goal 10: People and The Environment:** To improve students' understanding of today's complex environmental challenges. Students will examine the inter-relatedness of human society and the natural environment. Knowledge of both bio-physical principles and socio-cultural systems is the foundation for integrative and critical thinking about environmental issues.

**Goal 11: Information Literacy:** To foster researchers who have the ability to locate and investigate, organize, critically evaluate, and effectively synthesize information. Information literacy will be interwoven throughout the general education curriculum in order to develop students' academic integrity regarding their research.

**Requirements**

LASC is 40 credits which matches with the goal areas of the Minnesota Transfer Curriculum with the exception of Goal Areas 11: Information Literacy. This goal area is embedded in the curriculum of Goal Areas 1A through 10 and is satisfied through the completion of the other goal areas.

A minimum of a 2.0 GPA is required in all courses used to fulfill LASC requirements, including transfer courses. No more than two courses in a student's primary major rubric may be used to fulfill requirements in goal areas 3-10. Students with more than one major will select which major to declare as their primary major. A course from goal areas 3, 5, or 6 may also satisfy goal areas 7, 8, 9, or 10. Likewise, a course from goal areas 8, 9, or 10 may satisfy a second goal area from 8, 9, or 10. Note that a single course may satisfy at most two goal areas. Completion of approved course fulfills both goal areas, but the credit may not be double counted. LASC courses may have pre-requisites. Veterans with certain military service training may be determined to have met goal area 9 (see Registrar's Office for documentation requirements). A set of three 1-credit activity focused courses, including but not limited to performing ensembles, may be counted as one course for LASC credit.

**Goal 1A: Oral Communication**– Complete one course.

**Goal 1B: Written Communication**– Complete one course.

**Goal 2: Critical Thinking** – Complete a minimum of one course.

**Goal 3: Natural Sciences** – Complete a minimum of two courses from two different rubrics, at least one course must include a traditional lab experience.

**Goal 4: Mathematics / Logical Reasoning** – Complete a minimum of one course.

**Goal 5: History and the Social and Behavioral Sciences** – Complete a minimum of two courses with different disciplinary rubrics.

**Goal 6: The Humanities and Fine Arts** – Complete a minimum of two courses with different disciplinary rubrics.

**Goal 7: Human Diversity** – Complete a minimum of one course.

**Goal 8: Global Perspective** – Complete a minimum of one course.

**Goal 9: Ethical and Civic Responsibility** – Complete a minimum of one course.

**Goal 10: People and the Environment** – Complete a minimum of one course.

**Goal 11: Information Literacy** – This goal is fulfilled automatically when all of the goal areas are completed.

Only courses currently approved for LASC credit may be counted toward completion of the 40 minimum credits required. A complete list of all currently approved courses is available online HERE.

Courses taken for Pass/Fail grades may not be applied to LASC. In addition to the graduation requirement of a GPA of 2.0 in all MSUM courses, an overall cumulative 2.0 GPA is required in LASC. Certain degree programs may require higher LASC GPAs. Check with the department for more information.

**Writing Intensive Requirements**
All students entering with less than 32 transferrable credits must complete five writing intensive (W) courses at MSUM:

- English 101 (or an approved alternative)
- One writing intensive course in the Liberal Arts and Sciences Curriculum (LASC)
- One 300- or 400-level writing intensive course designated by the student's major
- Two writing intensive courses at the 200-level or higher, only one of which may hold the rubric of the student's major

If a student has multiple majors, the student must fulfill the university writing intensive course requirements as well as the upper-level writing requirement of each major.

Students entering with 32 or more transferable credits must complete two writing intensive courses at MSUM:

- One 300- or 400-level writing intensive course designated by the student's major
- One writing intensive course at the 200-level or higher

If a student has multiple majors, the student must fulfill the university writing intensive course requirements as well as the upper-level writing requirement of each major.

A complete list of all currently approved courses is available online HERE.

**Minnesota Transfer Curriculum**
The Minnesota Transfer Curriculum (MnTC) was created by mutual agreement of Minnesota's public higher education institutions to aid in transfer among all public colleges and universities in the state. Students completing the specified transfer curriculum at one Minnesota institution will be deemed to have satisfied the general education requirements of the latter institution.

Students who transfer to MSUM with a partially completed MnTC are not required to repeat any goal areas they have already fulfilled, but must complete the remaining requirements of MSUM's Liberal Arts and Sciences Curriculum. A 2.0 MnTC GPA is required for recognition of a student's completion of the entire MnTC with or without completing an associate degree.

In order to complete the MnTC at MSUM a student must complete the following requirements:

- A 2.0 MnTC GPA is required for recognition of a student's completion of the entire Minnesota Transfer Curriculum.
- 40 credits must be completed in the following goal areas.

**Goal 1A: Oral Communication**– Complete one course.

**Goal 1B: Written Communication**– Complete one course.

**Goal 2: Critical Thinking** – Complete a minimum of one course.

**Goal 3: Natural Sciences** – Complete a minimum of two courses from two different rubrics, at least one course must include a traditional lab experience.

**Goal 4: Mathematics / Logical Reasoning** – Complete a minimum of one course.

**Goal 5: History and the Social and Behavioral Sciences** – Complete a minimum of two courses with different disciplinary rubrics.

**Goal 6: The Humanities and Fine Arts** – Complete a minimum of two courses with different disciplinary rubrics.

**Goal 7: Human Diversity** – Complete a minimum of one course.

**Goal 8: Global Perspective** – Complete a minimum of one course.

**Goal 9: Ethical and Civic Responsibility** – Complete a minimum of one course.

**Goal 10: People and the Environment** – Complete a minimum of one course.

**Minnesota Transfer Curriculum Two-Year Colleges**

Transfer students who have completed an Associate in Arts degree at a regionally accredited college or have completed the MnTC as prescribed by that institution, will be deemed to have met the LASC requirement at MSUM.

Transfer credits may not be applied to meet an area requirement (LASC, major, or minor) unless they also meet the corresponding GPA requirement for the academic area.

All baccalaureate degrees require at least 40 credits of the graduation credits to be at the upper division (300-400) level.

MSUM will accept in transfer, for full credit, college-parallel general education courses offered by institutions with regional accreditation to provide transfer-level general education courses leading to the following degrees: associate degrees in arts, sciences, applied sciences, and the baccalaureate degree.

MSUM will accept for transfer, as lower-division electives, a maximum of 16 semester credits of vocational or technical courses offered by technical colleges. Specific requirements in a student's major or minor field of study may be waived upon evaluation of vocational or technical courses judged by MSUM faculty to be comparable or equivalent to courses offered by MSUM. Any credit granted upon review will be in addition to the total of 16 credits of lower division electives.

## Curricular Information

**This is a listing of available degree programs here at MSUM. The majors, minors, and certificates are broken down on the left hand menu by department.**

**Baccalaureate Degrees**
The four-year degrees available from Minnesota State University Moorhead (MSUM) include the Bachelor of Arts, Bachelor of Science, Bachelor of

Fine Arts, Bachelor of Science in Nursing, and the Bachelor of Social Work. Each requires the satisfactory completion of 120 or 128 credits of college courses and includes 42 credits in the Liberal Arts and Sciences Curriculum (LASC), from 32-64 credits in a major area, and the remainder in electives. The exception is Music Education, which requires a total of 136 credits for the major. While no minor is required, students may choose from more than 90 possible minor programs. Information about the LASC requirements may be found in the *Common Undergraduate Degree Requirements* section of the **Bulletin** and requirements for degrees are listed in the *Majors, Minors, and Certificates* section.

**Multiple Majors and Multiple Degree**
Students completing two or more majors with different degree designations will be awarded the more appropriate degree, except that the B.S. degree shall be given if one major is in a field of professional teaching.

Students who seek more than one baccalaureate degree (different designation, i.e. B.A. and B.S.) will be required to complete at least 30 credits beyond the minimum of 120 or 128 credits applied to the first degree.

Students who hold a previous baccalaureate degree from MSUM or from another institution whose degree is recognized by MSUM may earn an additional bachelor's degree (degree name must be different than the initial degree, i.e. B.A. and B.S.) by:

- Completing at least 30 resident credits at MSUM;
- Meeting all MSUM course requirements for the degree program, including at least six credits from the MSUM department awarding the degree and including an approved major and teacher education requirements for any teaching major; and
- Maintaining at least a 2.0 GPA in all studies at MSUM.

Students with a previous MSUM degree may add another major or minor by completing any additional requirements as certified to the Registrar's Office by the department offering the major or minor and by the education department in the case of any teaching major.

Students completing two majors must meet departmental requirements for each major.

**Minors Through Tri-College University Exchange**
The Tri-College University commissioners have agreed that students completing minors on one of the other campuses should be given recognition for this accomplishment on their graduation transcripts. Thus, a MSUM student could complete a minor in, for example, agronomy or horticulture at one of the other TCU schools and, upon graduation, that student's transcript would so indicate. Students should complete the TCU minor approval form and secure signatures from the university/college granting the minor. Additional information may be found on the Tri-college page.

**Teaching Majors and Minors and Licensure**
Requirements for teaching major programs are listed under the respective departments in this catalog or can be found at http://www.mnstate.edu/education/.

Many enroll at MSUM in programs that will provide the academic requirements for Minnesota licensure in various fields of education. Upon completing one of these programs, students should apply for licensure through the School of Teaching and Learning. If the license program is combined with study for a postgraduate degree, students must meet admission requirements established by the Office of Graduate Studies and Extended Learning. Questions should be directed to specific departments.

Those who hold baccalaureate degrees without a teaching license may earn a Bachelor of Science degree from MSUM or complete the academic requirements for licensure.

Minnesota licensure does not guarantee reciprocal licensure in other states. Therefore, students who intend to teach in other states should contact licensure boards in those states as early as possible

to determine appropriate coursework for certification.

**University Studies Major**
Students who wish to develop a multidisciplinary major built around a chosen theme or who wish to complete a generalist degree have the option of pursuing the Bachelor of Science in University Studies. Information on the University Studies degree can be found on the Academic Support Center website.

**Certificate Programs**
Certificates are awarded for successful completion of a *specialized academic program of study which certifies specific* knowledge and/or professional skills in a specialized area of knowledge or practice. A student can earn a stand-alone certificate without a degree from MSUM. Students must earn at least one-third of the credits from MSUM.

**Advising in Pre-Professional Areas**
A number of professions, particularly those in the health sciences and legal areas, require advanced specialized training beyond the baccalaureate. Students interested in pursuing these careers must be properly advised about their various options for coursework and degree completion at MSUM so they will be best prepared for more advanced degree work in these fields. For example, MSUM has a Pre-professional committee of faculty who provide advising and support for students at all stages of their interest in and application to medical school. MSUM faculty also have expertise in advising students as they prepare for post-graduate work.

**Associate Degree**
MSUM offers the two-year Associate in Arts (A.A.). This degree requires completion of the Liberal Arts and Sciences Curriculum and Writing-Intensive requirements, plus electives to fulfill the 60 credit degree requirement. The AA degree is designed so students may continue to study for a baccalaureate degree should educational plans change.

## Honors Program

**Program Director: Dr. Erik Gooding**
**Center for Engaged Learning**
**Hagen Hall 103 218-477-4514**

The MSUM Honors Program provides excellent teaching, mentorship, and long-term intellectual development. The program is built around three themes: explore, create, experience. Within a flexible framework, students are expected to explore different courses, lectures, and ideas that challenge the intellect; create with faculty mentors their own research or creative activities; and experience the breadth of university life by attending concerts, plays, exhibitions, special lectures, or to experience what the world has to offer by studying abroad.

**Program Components and Definitions**

The main components of the Honors Program are the Honors Colloquium, three Honors Courses, the Honors Capstone, and eight Honors Encounters.

- The Honors Colloquium develops student's analytical, logical, and critical reading skills and it is structured to encourage open discussion of current issues, controversial ideas, and broadly interdisciplinary intellectual themes.
- The Honors Capstone enables the student to use and extend skills and abilities developed over the course of their experience, developing an intellectual and/or professional written project that demonstrates their accomplishments in the program.
- Honors Encounters are one-credit /pass/fail courses. Students can earn an Honors Encounters credit by attending any combination of at least three Honors Lectures, other lectures and performances or exhibitions as approved by the Honors Director or Honors Program Committee. Students will be expected to write a short report of each event attended. In addition, students could earn Honors Encounter credits by learning abroad, studying foreign languages beyond major requirements and carrying out independent research or

creative activities beyond major requirements.

**Entrance Requirements:**
Admission to the Honors Program is by automatic invitation for entering freshmen who have achieved an ACT score of 26 or greater (equivalent SAT) or who are in the top 25% of their high school graduating class and also earned a GPA of at least 3.6. New students who do not meet these requirements (as well as current or transfer students) may apply for the Honors Program by providing a personal statement outlining their academic and intellectual goals, a writing sample, and school transcripts.

# *College of Arts and Humanities*

*The MSUM College of Arts and Humanities courses teach the important skills of critical thinking and cultural sensitivity. Student knowledge is applied across a variety of contexts to create versatile learners for a world that is constantly changing.*

## English

**Weld Hall 216, (218) 477-2235**
**Chair:** Susan Imbarrato
**Faculty:** Kevin Carollo, Lin Enger, Laura Fasick, Yahya Frederickson, Susan Imbarrato, Elizabeth Kirchoff, Michael McCord, Liz Rowse, Kevin Zepper

*The **Department of English** offers majors in English, English and Mass Communications, and Communication Arts and Literature Education. Areas of emphasis in Integrated English and Publishing. Minors offered are in English and English writing. Certificate offered in Professional Writing.*

Requirements for majors, dual majors, and minors in English are set forth in detail below. Anyone who wishes to major or minor in English must see the department OAS to be assigned an advisor. Because of the significant number of electives permitted, English majors and minors must consult their advisors each semester to plan programs which are both academically acceptable and personally satisfying.

The B.A. and B.S. (teaching) programs presently have similar core requirements; but among the other differences, the B.S. program includes coursework prescribed by the Minnesota State Board of Education for a teaching major in English on the secondary level.

Students intending to pursue graduate study are advised to take more than the minimum number of 300 and 400-level courses.

All majors will take one designated Capstone seminar, preferably in their senior year, which serves as a culminating course for their academic study in English. Choose one Capstone course: ENGL 430 Capstone: Individual Authors **OR** ENGL 488 Capstone: Advanced Creative Writing. Communication Arts/Literature Education majors take ENGL 491: Theory and Methods: CA/L Grades 9-12. All students should consult with their advisors for help in selecting an appropriate Capstone course.

**Certificate in Professional Writing**
The Certificate in Professional Writing provides the opportunity for students, professionals, and businesspeople to enhance their communication skills and credentials with a special emphasis on coursework tailored to their work settings and careers. The Certificate in Professional Writing is designed for students pursuing or holding a bachelor's degree from MSUM or an equivalent university.

## BA Degree in English

To receive the B.A. Degree in English, the student must meet the minimum university requirements and specific requirements for the program. Completion of 120 credits is required for this degree which includes the Liberal Arts and Sciences Curriculum.

Student Learning Outcomes

- Perform written critical analysis and/or creative achievement within the context of literary tradition.
- Develop a knowledge of major authors, works, and traditions of literature.
- Develop reading and writing skills that find, draw upon, and engage with authoritative scholarship within the discipline.
- Use standard documentation procedures in projects involving research and writing.
- Discuss literary and historical issues with peers from a variety of critical or creative perspectives.

**Program Delivery Mode**
Land plus: face-to-face where some online courses may be available or required

**Designated Writing Intensive Course for Major**
Students must complete one Writing Intensive Capstone Course Select one of these 3 credit Capstone courses: ENGL 430 Capstone: Individual Authors (3)
ENGL 488 Capstone: Advanced Creative Writing (3)

**Core Requirements (18 credits)**
ENGL 300 Introduction to Literary Studies (3)
ENGL 311 Major British Writers I (3)
ENGL 314 Shakespeare (3)

ENGL 371 Survey of American Literature I (3)
ENGL 380 World Literature (3)

Choose one of the following capstone courses:
ENGL 430 Capstone: Individual Authors (3) **OR**
ENGL 488 Capstone: Advanced Creative Writing (3)

**Restricted Electives (21 credits)**
**Select 6 credits from this category:**

ENGL 280 World Literature: East-West (3)
ENGL 286 Writing for the Workplace (3)
ENGL 288 Introduction to Creative Writing (3)
ENGL 312 Major British Writers II (3)
ENGL 330 Individual Authors (3)
ENGL 340 Genre Studies (3)
ENGL 372 Survey of American Literature II (3)

**Select 9 credits from this category:**

ENGL 285 Scriptwriting (3)
ENGL 301 Medieval British Literature (3)
ENGL 320 Romantic & Victorian Literature (3)
ENGL 321 Early American Literature (3)
ENGL 322 19th Century American Literature (3)
ENGL 387 Technical Report Writing (3)
ENGL 388 Creative Writing (3)
ENGL 425 Grant Proposal Writing (3)
ENGL 463 History of the English Language (3)

**Select 6 credits from this category:**

ENGL 234 Mythology (3)
ENGL 246 Women in Literature (3)
ENGL 317 Personal Lives, National Affairs (3)
ENGL 332 Film and the Novel (3)
ENGL 335 World Mythology (3)
ENGL 346 Virtue and Vice in Gothic Storytelling (3)
ENGL 352 Native American Literature (3)
ENGL 356 African American Literature (3)
ENGL 390 Special Topics (1-4)
ENGL 407 Big City, Big Impact (3)
ENGL 410 Studies in British Literature (3)
ENGL 435 Nature Writing/Ecocriticism (3)
ENGL 469 Internship (1-12)

**Integrated English and Publishing Emphasis (21 credits)**
**Restricted Electives**
**Select 3 credits from this category:**

ENGL 312 Major British Writers II (3)
ENGL 330 Individual Authors (3)
ENGL 340 Genre Studies (3)
ENGL 372 Survey of American Literature II (3)

**Select 6 credits from this category:**

ENGL 285 Scriptwriting (3)
ENGL 286 Writing for the Workplace (3)
ENGL 288 Introduction to Creative Writing (3)
ENGL 387 Technical Report Writing (3)
ENGL 388 Creative Writing (3)
ENGL 425 Grant Proposal Writing (3)
ENGL 463 History of the English Language (3)
ENGL 490 Special Topics (1-4)

**Select 6 credits from this category:**

ENGL 234 Mythology (3)
ENGL 246 Women in Literature (3)
ENGL 301 Medieval British Literature (3)
ENGL 302 English Renaissance Literature (3)
ENGL 317 Personal Lives, National Affairs (3)
ENGL 320 Romantic & Victorian Literature (3)
ENGL 321 Early American Literature (3)
ENGL 322 19th Century American Literature (3)
ENGL 332 Film and the Novel (3)
ENGL 335 World Mythology (3)
ENGL 346 Virtue & Vice in Gothic Storytelling (3)
ENGL 352 Native American Literature (3)
ENGL 356 African American Literature (3)
ENGL 390 Special Topics (1-4)
ENGL 407 Big City, Big Impact (3)
ENGL 410 Studies in British Literature (3)
ENGL 435 Nature Writing/Ecocriticism (3)
ENGL 469 Internship (1-12)

**Select 6 credits from this category:**

ENGL 402 Introduction to Publishing (3)
ENGL 462 Practicum in Publishing (3)
ENGL 457 Literary Editing (3)

## BA Degree in English & Mass Communications

A student's B.A. degree will include 33 credits earned in the Department of English and 33 credits earned in the School of Communication and Journalism. The dual major is available for those wishing to concentrate on writing. A student may

choose to focus the writing experience to coincide with an interest in advertising, broadcast journalism, communication studies, documentary journalism, integrated advertising and public relations, photojournalism, multimedia journalism, or public relations. A student may select his/her major advisor from either the Department of English or the School of Communication and Journalism. Students are encouraged to get advising from faculty in both program units. Completion of 120 credits is required for this degree which includes the Liberal Arts and Sciences Curriculum.

**Program Delivery Mode**
Land plus: face-to-face where some online courses may be available or required

**Designated Writing Intensive Course for Major**
COMM 309 Reporting COMM 306 AD/PR Copywriting

**Core Requirements (36 credits)**
ENGL 300 Introduction to Literary Studies (3)
ENGL 311 Major British Writers I (3)
ENGL 314 Topics in Shakespeare (3)
ENGL 371 Survey of American Literature I (3)
ENGL 380 World Literature (3)
COMM 101 Introduction to Mass Media (3)
COMM 210 Media Writing (3)
COMM 220 Layout and Typography I (3)
COMM 230 Photography (3)
COMM 324 International Communications (3)
COMM 400 Mass Media Ethics and Issues (3)
COMM 403 Communications Law (3)

**Restricted Electives (12 credits)**
Students must choose nine credits from the listed English courses and must also choose a three credit communications course from those listed.

ENGL 285 Scriptwriting (3)
ENGL 288 Introduction to Creative Writing (3)
ENGL 372 Survey of American Literature II (3)
ENGL 387 Technical Report Writing (3)
ENGL 388 Creative Writing (3)
COMM 306 Advertising & Public Relations Copywriting (3) **or**
COMM 309 Reporting (3)

**Electives (18 credits)**
Students must take 9 elective credits in English courses and 9 elective credits in communications courses. The English elective credits must be at the 300 level or above and at least one course must be at the 400 level. Further, at least one course must be in American literature and at least one course must be in British literature. The English electives should be chosen in close consultation with an advisor from the English Department. The communications electives must also be chosen in close consultation with a faculty advisor in the School of Communication and Journalism department and may be drawn from any COMM or LEAD rubric.

## BS Degree in Communication Arts & Literature Education

To receive the B.S. Degree in Communication Arts and Literature Education, the student must meet the minimum university requirements and specific requirements for the program. Completion of 120 credits and a 2.5 GPA is required to graduate with this degree which includes the Liberal Arts and Sciences Curriculum and Secondary Teaching licensure Education requirements. A grade of C- or above is required in all coursework for this program.

**Student learning outcomes for the English Teaching majors (BS) are from the National Council for Teaching of English Guidelines**

- Demonstrate a respect for the worth and contributions of all learners.
- Show an understanding of language acquisition and development.
- Demonstrate the image of language and visual images on thinking and composing.
- Demonstrate how to respond to and interpret what is read in different ways.
- Use a wide range of writing strategies to generate meaning and to clarify understanding.
- Show knowledge of a broad historical and contemporary spectrum of United States, British, and world literatures.

- Recognize the influence of media on culture and on people's actions and communication.
- Use major sources of research and theory to understand the relationship between research and practice.
- Examine, evaluate, and select resources which support the teaching of English language arts.

**Program Delivery Mode**
Land plus: face-to-face where some online courses may be available or required

**Designated Writing Intensive Course for Major**
ENGL 491 - Theory and Methods: CA/L Grades 9-12

**Core Requirements (69 credits)**
ENGL 300 Introduction to Literary Studies (3)
ENGL 311 Major British Writers I (3)
ENGL 314 Topics in Shakespeare (3)
ENGL 371 American Literature Survey I (3)

Select ONE of the following courses (3 credits)

ENGL 280 World Literature: East and West (3)
ENGL 380 World Literature (3)

Select ONE of the following courses (3 credits)

ENGL 312 Major British Writers II (3)
ENGL 330 Individual Authors (3)
ENGL 372 American Literature Survey II (3)

**ENGL 491 is the capstone course for students in this major. Students must also fulfill all teacher licensure requirements.**

COMM 415 Teaching Methods: Communication Studies (3)
ENGL 365 Language and Learning (3)
ENGL 374 Theory & Methods: Writing, Grades 5-12 (3)
ENGL 484 Theory & Methods CA/L Grades 5-8 (3)
ENGL 491 Theory & Methods CA/L Grades 9-12 (3)
ENGL 493 Grammars of English (3)

Secondary Education Licensure Requirements
Students must earn at least a C- or higher in all licensure coursework.

COMM 100 Speech Communication (3)
ED 205 Introduction to Education (3)
ED 294 Educational Psychology (3)
ED 310 Social Foundations of Education (3)
ED 498 The Professional Teacher in the Classroom (3)
ED 448 Reading Study Skills in the Content Areas (3)
ED 461S Student Teaching: Secondary (12) **or**
ED 460S Student Teaching: Secondary (6) **and**
EECE 480E Student Teaching: Elementary (6) **or**
ED 461V Student Teaching: Secondary/K-12 (12)
SPED 413 Teaching in Inclusive Environments (3)
**Total: 33 credits**

Teacher licensure requirements must be met in order to receive a secondary teaching license in the state of Minnesota. The MN Professional Educator Licensing and Standards Board information can be found HERE.

Information on MSUM Teacher Licensure can be found HERE.

**Restricted Electives (6 credits)**
Students must select two additional 3-credit courses in English at either the 300 or 400 level.

## Minor in English
24 credits

**Core Requirements (15 credits)**
ENGL 300 Introduction to Literary Studies (3)
ENGL 311 Major British Writers I (3)
ENGL 314 Shakespeare (3)
ENGL 371 Survey of American Literature I (3)
ENGL 380 World Literature (3)

**Restricted Electives (9 credits)**
Students must take nine credits in English electives from the following list:

ENGL 301 Medieval British Literature (3)
ENGL 317 Personal Lives, National Affairs (3)
ENGL 320 Romantic & Victorian Literature (3)
ENGL 321 Early American Literature (3)
ENGL 322 19th Century American Literature (3)
ENGL 340 Genre Studies (3)
ENGL 346 Virtue and Vice in Gothic Storytelling (3)

ENGL 352 Native American Literature (3)
ENGL 356 African American Literature (3)
ENGL 388 Creative Writing (3)
ENGL 407 Big City, Big Impact (3)
ENGL 410 Studies in British Literature (3)
ENGL 435 Nature Writing/Ecocriticism (3)
ENGL 463 History of the English Language (3)

## Minor in English-Writing

18 credits

**Core Requirements (12 credits)**

Students must take at least twelve credits chosen from the following courses. A maximum of three credits from ENGL 469 is applicable to this minor.

ENGL 285 Scriptwriting (3)
ENGL 286 Writing for the Workplace (3)
ENGL 288 Introduction to Creative Writing (3)
ENGL 387 Technical Report Writing (3)
ENGL 388 Creative Writing (3)
ENGL 469 Internship (1-3)
ENGL 488 Capstone: Advanced Creative Writing (3)

**Restricted Electives (6 credits)**

Students must take six credits in English electives from the following list:

ENGL 317 Personal Lives, National Affairs (3)
ENGL 332 Film and the Novel (3)
ENGL 346 Virtue and Vice in Gothic Storytelling (3)
ENGL 407 Big City, Big Impact (3)
ENGL 435 Nature Writing/Ecocriticism (3)
ENGL 463 History of the English Language (3)

## Minor in Religious Studies

21 credits

**Core Requirements (9 credits)**

PHIL 120 World Religions (3)
PHIL 301 Philosophy of Religion (3)
HUM 320 Humanities East and West (3)

**Restricted Electives (12 credits)**

Students must choose twelve credits from the listed electives. Students may substitute other courses, such as topics courses, in consultation with the student's advisor and with approval by the Coordinator of Religious Studies. Electives must be drawn from at least three different disciplines.

ANTH 314 American Indian Worldviews (3)
ANTH 316 Magic, Witchcraft and Belief (3)
ENGL 318 Christian Bible as Literature (3)
ENGL 234 Mythology (3)
HIST 244 Women in World Religions (3)
HIST 317 Medieval Europe (4)
HIST 385 History of Christianity (4)
PHIL 302 Buddhist Philosophy (3)
PHIL 322 Religious Traditions in Our Global Society (3)
SOC 330 Sociology of Religion (3)

## Certificate in Professional Writing

15 credits

The Certificate in Professional Writing provides the opportunity for students, professionals, and business people to enhance their communication skills and credentials with a special emphasis on coursework tailored to their work settings and careers.

CSIS 103 Computer Concepts and Applications (3)
COMM 220 Layout and Typography I (3)
ENGL 286 Writing in the Workplace (3)
ENGL 387 Technical Report Writing (3)
COMM 301 Business and Professional Communications (3)

## Communication Arts/Literature Middle Level (5-8) Teaching Endorsement

Successful completion of this program will qualify students to apply for a middle level Minnesota teaching endorsement in Communication Arts/Literature, which will allow them to extend their Elementary or Secondary teaching license so that they can teach English/Language Arts in grades 5-8

Students who seek this endorsement must be admitted to a degree program in either A) Elementary Inclusive Education or B) secondary education in any subject area OR students who seek this endorsement must already be licensed to teach either Elementary Inclusive Education or secondary education in any subject area.

ENGL 280 World Literature East and West (3)
ENGL 365 Language and Learning (3)
ENGL 374 Theory and Methods: Writing Grades 5-12 (3)
ENGL 493 Grammars of English (3)
ENGL 484 Theory and Methods: CA/L Grades 5-8 (3)

ED 205 Introduction to Education (3)
ED 294 Educational Psychology (3)
ED 350M Middle Level Field Experience (1)
ED 448 Reading Study Skills in the Content Areas (3)
ED 460M Middle Level Student Teaching (4)
STL 465 Responsive Teaching II: Collaboration and Team Decision Making (3) **OR**
ED 498 The Professional Teacher in the Classroom (3)
COMM 415 Teaching Methods: Communication Studies (3)

## Entertainment Industries and Technology

**Center for the Arts 116, (218) 477-2126**
**Chair:** Ryan Jackson
**Faculty:** Ryan Jackson

The Bachelor of Science in Entertainment Industries and Technology (EIT) at MSUM is one of very few programs that offer a degree specific to the entertainment industry. EIT offers emphasis in audio production and entertainment business, and allows students to choose a focus in a number of different areas to allow for a high degree of specialization, or a broad study of the industry.

Through dynamic partnerships with the Paseka School of Business, School of Media Arts and Design, School of Performing Arts, and the College of Arts and Humanities, students will take courses in related areas focusing on unique career preparation. Those skills then are re-focused within the context of the entertainment industry.

## BS Degree in Entertainment Industries and Technology

In depth study of the entertainment industry including topics in business, legal, and technology associated with careers in specific areas within the entertainment industry. Students will choose one or more areas of interdisciplinary study to further focus their skills.
To receive the B.S. Degree in Entertainment Industries and Technology, the student must meet the minimum university requirements and specific requirements for the program. Completion of 120 credits is required for this degree which includes the Liberal Arts and Sciences Curriculum.

Student Learning Outcomes

- Students will be able to identify where skills cross-over exists between many different areas within the entertainment industry.
- Students will be able to adapt to many areas across the entertainment industry.
- Students will synthesize their research and writing into an appropriate professional portfolio of their work that addresses their specific area of focus within entertainment.
- Students will be able to function at a professional level within their specific chosen area(s) of concentration within the entertainment industry.

Admission Requirements

- Students interested in the B.S. in Entertainment Industries and Technology may declare their major upon being accepted to Minnesota State University Moorhead.
- A placement interview with Entertainment Industries and Technology faculty is required, and must be scheduled during your first week of classes.
- This program has a laptop/iPad requirement. Current equipment specifications as well as any purchase or rental options will be discussed during the first semester of enrollment in the EIT program.

**Program Delivery Mode**
Land plus: face-to-face where some online courses may be available or required

**Designated Writing Intensive Course for Major**
EIT 492 Professional Seminar (3)

**Core Requirements (22 credits)**
Student must declare an emphasis for this program. Students must earn a grade of C- or higher in all core requirements.

EIT 160 Intro to the Entertainment Industry (1)
EIT 161 Intro to Copyright and Trademark (3)
EIT 180 Critical Listening and Sound Analysis I (2)
EIT 261 Legal and Ethical Issues in Entertain. (3)
EIT 361 Entertainment Activity (1 x 4)
EIT 461 Entertainment Entrepreneurship (3)
EIT 492 Professional Seminar (3) (WI)
ACCT 230 Principles of Accounting I (3)

**Program Requirements**
Students must complete 120 credits total, including LASC and FYE 101, with 40 credits at the 300-level, or higher. Students will choose courses within the approved interdisciplinary rubrics. They are also encouraged to choose a minor (s) from these areas. A customized specialization through courses in other areas not listed is also possible on a case-by-case basis. Students will be allowed to choose a minor or specialized plan after successful completion of EIT 160. Students will choose either one or both emphasis areas. Students who elect to do both emphasis areas will be limited to 8 credits of electives from approved areas.

- Students will choose from the following interdisciplinary rubrics to complete their degree.
- Students may choose to do a specialized plan by mandatory consultation with their primary academic advisor and a representative from the chosen specialty area.
- Approved interdisciplinary rubrics are as follows (must have 30 elective credits): ACCT, BUS, COMM, EIT, ENTR, FILM, GID, MUS, POL, THTR

**Audio Technology Emphasis (29 credits)**
EIT 181 Audio and Technology Theory (3)
EIT 182 Intro to Audio Recording (2)
EIT 280 Critical Listening and Sound Analysis II (3)
EIT 281 Live and Studio Production (3)
EIT 381 Studio Projects (3)
EIT 382 Live Sound Reinforcement/Recording (3)
EIT 383 Sound for Film and Video (3)
EIT 481 Advanced Studio Projects (3)
THTR 255 Stagecraft (3)
THTR 356 Lighting Studio (3) *every other year*

**Entertainment Business Emphasis (26 credits)**
EIT 362 Artist and Venue Management (2)
ENTR 229 Start Your Own Business (3)
ENTR 232 Entrepreneurial Marketing (3)
POL 251 Legal Research and Writing (WI) (3)
POL 321 Employment Law (3)
POL 350 Contract Law and Drafting (3)
COMM 301 Business and Professional Communication (3)
COMM 383 Event Planning (3)
COMM 351 Messaging for Mobile (3)

## Minor in Audio Production and Technology
24 credits

A study of the entertainment industry including topics in business, legal, and technology associated with careers in specific areas within the entertainment industry.

EIT 160 Intro to the Entertainment Industry (1)
EIT 180 Critical Listening and Sound Analysis I (2)
EIT 181 Audio and Technology Theory (3)
EIT 182 Intro to Recording/Reinforcement (2)
EIT 280 Critical Listening and Sound Analysis II (3)
EIT 281 Live and Studio Production (3)
EIT 361 Entertainment Activity (1)
EIT 381 Studio Production (3)
EIT 382 Live Sound and Recording (3)
EIT 481 Projects in Studio Production (3)

## Minor in Entertainment Business
19 credits

A study of the entertainment industry including topics in business, legal, and technology associated

with careers in specific areas within the entertainment industry.

EIT 160 Intro to the Entertainment Industry (1)
EIT 161 Intro to Copyright and Trademark (3)
EIT 261 Legal and Ethical Issues in Entertainment (3)
EIT 461 Entertainment Entrepreneurship (3)

Choose ONE of the following sequences

Entrepreneurship
ENTR 229 Start Your Own Business (3)
ENTR 232 Entrepreneurial Marketing (3)
ENTR 309 Building a Workable Business Plan (3)

Political Science
POL 251 Legal Research and Writing (WI) (3)
POL 321 Employment Law (3)
POL 350 Contract Law and Drafting (3)

Communications
COMM 301 Business and Professional Communication (3)
COMM 383 Event Planning (3)
COMM 351 Messaging for Mobile (3)

## History, Languages, & Humanities

*The **Department of History, Languages, and Humanities** offers majors in History, Social Studies Education, and Women's and Gender Studies. Minors are offered in History and Women's and Gender Studies. A certificate in Women and Science is also offered.*

**Department Co-Chairs of History, Languages, & Humanities:** Annette Morrow & Theodore Gracyk
**History and Social Studies**
**MacLean Hall 374, (218) 477-2812**
**Faculty:** Yolanda Arauza, Kazimir Gazdzik, Annette Morrow, Sean Taylor

**History**

The History Department offers courses in U.S., European, South American, African, Asian, and World History to meet the varied needs and interests of our students. History courses can be found that fulfill requirements in several areas of the Liberal Arts and Sciences Curriculum. Upper-division courses in History also prepare students for careers as teachers or in such diverse areas as law, government, libraries, museums, and business. The study of history at MSUM involves much more than the memorization of names and dates. Our students learn to think analytically and critically about the past and to understand history as the experiences of real human beings.

**Social Studies**

Successful completion of the Social Studies major leads to certification from the State of Minnesota to teach in grades five through twelve.

The major has four components:

- **Core requirements, also known as distribution requirements**. These courses expose majors to the various disciplines that comprise Social Studies. All students must complete the 27-29 credit requirement listed below.
- **Emphasis**. Majors must choose one discipline as their emphasis. Requirements for each discipline are listed below.
- **Secondary emphasis**. Majors must choose one discipline as their secondary emphasis. Requirements for each discipline are listed below.
- **Teacher licensure requirements**. These requirements are common to all secondary education majors and are listed under Secondary Education. Students should carefully study and understand all of these components and choose their course of study in consultation with their advisor. In selecting primary and secondary emphases, students should consider their own interest and aptitudes and the needs of the job market in secondary schools. While History is the foundation of Social Studies in the schools and is the most frequently taught subject in Social Studies, other areas are also taught at the secondary level, often depending on the size of the school. In Minnesota, high schools must commonly offer courses in

Geography, Political Science, and Economics.

It is also worth noting that students can enhance their appeal as teacher candidates by qualifying themselves to coach a sport. Consult with the Health and Human Performance Department to learn more.

**Languages and Cultures**
**Faculty:** John Hall, April Schmidt

**Women's and Gender Studies**
**MacLean Hall, 175 (218) 477-4075**
**Program and Affiliated Faculty:** Sara Anderson, Anna Arnar, Laurie Blunsom, Steve Bolduc, Karen Branden, Ellen Brisch, Rebecca Gardner, Geri Hendrix-Sloan, Susan Imbarrato, Brenda Koneczny, Jennifer Kupferman, Annette Morrow, Carol Okigbo, Julia Poplin, Sherry Short, Deborah White

**Women's and Gender Studies Curriculum**
The Women's and Gender Studies program at MSUM has been ongoing since 1971. Students can earn a major or minor in Women's and Gender Studies, a minor in Women's Health, and a certificate in Women and Science. Women's and Gender Studies uses diverse historic and contemporary sources to examine the intersections of gender with racism, classism, heterosexism and other oppressions. Courses in the program use theoretical frameworks from social science, history and humanities plus other disciplines grounded in anti-oppression and social justice work to analyze the social and political locations of diverse identities. The program combines an interdisciplinary understanding of social structures with specific analyses of women's experiences both locally and globally. Students are challenged to understand and analyze complex current and historic realities and to enact social change through activism.

**Philosophy and Humanities**
**Faculty:** Theodore Gracyk, Chang-Seong Hong, Philip Mouch

## BA Degree in History

To receive the B.A. Degree in History, the student must meet the minimum university requirements and specific requirements for the program. Completion of 120 credits is required for this degree which includes the Liberal Arts and Sciences Curriculum. A grade of C or higher is required in all coursework for this program.

Student Learning Outcomes

- Reading Comprehension and Cognitive Skills: Students should be able to identify the main point or thesis in a piece of historical writing; analyze how authors develop their theses and support them with evidence; and recognize and evaluate the differences in historical interpretation among different authors.
- Historical Thinking Skills: Students should be able to recognize potential sources of bias in historical writings; understand and interpret events in their appropriate historic context; understand and interpret relations of cause and effect and other sequential relations; understand the complexity of human motivations, and appreciate cultural differences in patterns of behavior and ideation; and synthesize a variety of evidence into a coherent and plausible account of events.
- Research Skills: Students should be able to recognize the difference between primary and secondary sources, and understand the uses and importance of each type; select and refine an appropriate topic for a given assignment; identify a variety of different kinds of source materials that could shed light on a particular topic; use the library and various bibliographic aids to identify and locate different sources relevant to a particular topic; evaluate which of their sources are the most authoritative; compile and annotate a bibliography and present in proper format; and conduct an oral history interview.
- Written Communication Skills: Students should be able to formulate a thesis on

the basis of insights gained from research; develop their thesis in an organized logical progression; use appropriate evidence to support points; cite their sources properly; summarize points made in source materials and make the connections between different points of view and their own; recognize the shortcomings of their evidence and anticipate possible objections; respond constructively to criticism and make appropriate revisions; write clear and grammatical prose; and critically evaluate the work of other students.

- Oral Communication Skills: Students should be able to respond clearly and thoughtfully to questions and comments in class discussion; draw upon and summarize reading materials in ways that address larger themes and issues; deliver an effective oral presentation; and critically evaluate the work of other students.
- Computer Literacy: Students should be able to produce a paper using work processing software; use email; and conduct research using the internet in addition to traditional sources.

**Program Delivery Mode**
Land plus: face-to-face where some online courses may be available or required

**Designated Writing Intensive Course for Major**
HIST 492 Senior Seminar

**Core Requirements (19 credits)**
HIST 104 World History I (3)
HIST 105 World History II (3)
HIST 121 US History I (3)
HIST 122 US History II (3)
HIST 205 Introduction to Historical Methods (3)
HIST 492 Senior Seminar (4)

**Related Requirements**
Students must earn at least a C in each history class.

Students are responsible for keeping an archive of their academic work on e-folio.

**Restricted Electives (18 credits)**
Students must complete:

- Between 6 and 12 credits at the 300 level or above in the European history.
- Between 6 and 12 credits at the 300 level or above in the United States or Canadian history.
- Between 6 and 12 credits at the 300 level or above in the African, Asian, Latin American, or Middle Eastern history.

At least two (2) or more of the following geographical areas must be represented: Africa, Asia, Latin America, or the Middle East.

**Electives (46 credits)**
Students must earn at least 46 credits in courses with the History rubric. The elective total credits in History may vary, depending on the credit value of the History courses which students present for graduation.

## BS Degree in Social Studies

To receive the B.S. Degree in Social Studies, the student must meet the minimum university requirements and specific requirements for the program. Completion of 120 credits is required for this degree which includes the Liberal Arts and Sciences Curriculum and Secondary Teaching Licensure Education requirements. Students must complete a primary and a secondary emphasis.

Student Learning Outcomes

- Reading Comprehension and Cognitive Skills: Students should be able to identify the main point or thesis in a piece of historical writing; analyze how authors develop their theses and support them with evidence; and recognize and evaluate the differences in historical interpretation among different authors.
- Historical Thinking Skills: Students should be able to recognize potential sources of bias in historical writings; understand and

interpret events in their appropriate historic context; understand and interpret relations of cause and effect and other sequential relations; understand the complexity of human motivations, and appreciate cultural differences in patterns of behavior and ideation; and synthesize a variety of evidence into a coherent and plausible account of events.

- Research Skills: Students should be able to recognize the difference between primary and secondary sources, and understand the uses and importance of each type; select and refine an appropriate topic for a given assignment; identify a variety of different kinds of source materials that could shed light on a particular topic; use the library and various bibliographic aids to identify and locate different sources relevant to a particular topic; evaluate which of their sources are the most authoritative; compile and annotate a bibliography and present in proper format; and conduct an oral history interview.
- Written Communication Skills: Students should be able to formulate a thesis on the basis of insights gained from research; develop their thesis in an organized logical progression; use appropriate evidence to support points; cite their sources properly; summarize points made in source materials and make the connections between different points of view and their own; recognize the shortcomings of their evidence and anticipate possible objections; respond constructively to criticism and make appropriate revisions; write clear and grammatical prose; and critically evaluate the work of other students.
- Oral Communication Skills: Students should be able to respond clearly and thoughtfully to questions and comments in class discussion; draw upon and summarize reading materials in ways that address larger themes and issues; deliver an effective oral presentation; and critically evaluate the work of other students.
- Computer Literacy: Students should be able to produce a paper using work processing software; use email; and conduct research using the internet in addition to traditional sources.

**Program Delivery Mode**
Land plus: face-to-face where some online courses may be available or required

**Designated Writing Intensive Course for Major**
HIST 440 Secondary Social Studies Instruction

**Core Requirements (60 credits)**
ANTH 110 Introduction to Cultural Anthropology (3)
ECON 100 The American Economy (3)
GEOS 111 Cultures and Regions (3)
HIST 121 History of the United States to 1877 (3)
HIST 122 History of the United States Since 1877 (3)
HIST 440 Secondary Social Studies Instruction (3)
POL 105 Making Sense of Politics (3)
PSY 113 General Psychology (3)
SOC 110 Introduction to Sociology (3) **or**
SOC 210 Social Problems (3)
**Total: 27 credits**

Secondary Education Licensure Requirements
Students must earn at least a C- or higher in all licensure coursework.

COMM 100 Speech Communication (3)
ED 205 Introduction to Education (3)
ED 294 Educational Psychology (3)
ED 310 Social Foundations of Education (3)
ED 498 The Professional Teacher in the Classroom (3)
ED 448 Reading Study Skills in the Content Areas (3)
ED 461S Student Teaching: Secondary (12) **or**
ED 460S Student Teaching: Secondary (6) **and**
EECE 480E Student Teaching: Elementary (6) **or**
ED 461V Student Teaching: Secondary/K-12 (12)
SPED 413 Teaching in Inclusive Environments (3)
**Total: 33 credits**

Teacher licensure requirements must be met in order to receive a secondary teaching license in the state of Minnesota. The MN Professional Educator Licensing and Standards Board information can be found HERE.

Information on MSUM Teacher Licensure can be found HERE

**Anthropology Primary Emphasis** (24 credits)
In addition to the courses listed below, students must take 12 elective credits in Anthropology and at least one of the courses must be a cultural anthropology course. Students must also choose a secondary emphasis in Economics, Geography, History, Political Science, Psychology, or Sociology.

ANTH 115 Introduction to Archaeology (3)
ANTH 120 Introduction to Physical Anthropology (3)
ANTH 265 Language and Culture (3)
ANTH 300 Archaeology (3)

**Anthropology Secondary Emphasis** (12 credits)

In addition to one of the courses listed below, students must also choose at least nine credits of Anthropology electives.

ANTH 115 Introduction to Archaeology (3) **or**
ANTH 120 Introduction to Physical Anthropology (3)

**Economics Primary Emphasis** (24 credits)
In addition to the courses listed below, students must complete at least nine elective credits in Economics courses. Students must also choose a secondary emphasis in Anthropology, Geography, History, Political Science, Psychology, or Sociology.

ECON 202 Principles of Economics I: Micro (3)
ECON 204 Principles of Economics II: Macro (3)
ECON 300 Global Economic Issues (3)
ECON 302 Intermediate Microeconomic Theory (3)
ECON 304 Intermediate Macroeconomic Theory (3)

**Economics Secondary Emphasis** (12 credits)
In addition to the courses listed below, students must complete three credits in economics electives at the 300 level or higher.

ECON 202 Principles of Economics I: Micro (3)
ECON 204 Principles of Economics II: Macro (3)
ECON 300 Global Economic Issues (3)

**Geography Primary Emphasis** (25 credits)
All students in this emphasis must complete GEOS 110 Introductory Physical Geography (3) and GEOS 492 Senior Seminar (1). Additionally, students must complete six credits from the following courses. Students must also choose a secondary emphasis in Anthropology, Economics, History, Political Science, Psychology, or Sociology.

GEOS 235 Geography of Minnesota and North Dakota (3)
GEOS 310 United States and Canada (3)
GEOS 410 Eastern Europe and Russia (3)

Students must complete fifteen credits from the following courses. Students may not fulfill the "Restricted Electives" section with any of the courses applied toward the "Requirements" section of this emphasis.

ANTH 307 Ecological Anthropology (3)
GEOS 235 Geography of Minnesota and North Dakota (3)
GEOS 305 Oceanography (3)
GEOS 307 Introduction to Geographic Information Systems (GIS) (3)
GEOS 310 United States and Canada (3)
GEOS 320 Economic Geography (3)
GEOS 325 Reading Landscape: Ways of Seeing (3)
GEOS 330 Elementary Meteorology (3)
GEOS 335 Environmental Geography and Conservation (3)
GEOS 410 Eastern Europe and Russia (3)

**Geography Secondary Emphasis** (12 credits)
Students must take GEOS 110 Introductory Physical Geography (3) and must also take one of the following courses:

GEOS 235 Geography of Minnesota and North Dakota (3)
GEOS 310 United States and Canada (3)
GEOS 410 Eastern Europe and Russia (3)

Students will complete six credits from the listed courses. Students may not fulfill the "Restricted

Electives" section with any of the courses applied toward the "Requirements" section of this emphasis.

ANTH 307 Ecological Anthropology (3)
GEOS 235 Geography of Minnesota and North Dakota (3)
GEOS 305 Oceanography (3)
GEOS 307 Introduction to Geographic Information Systems (GIS) (3)
GEOS 310 United States and Canada (3)
GEOS 320 Economic Geography (3)
GEOS 325 Reading Landscape: Ways of Seeing (3)
GEOS 330 Elementary Meteorology (3)
GEOS 335 Environmental Geography and Conservation (3)
GEOS 410 Eastern Europe and Russia (3)

**History Primary Emphasis** (21 credits)
Students must take the following. Students must also choose a secondary emphasis in Anthropology, Economics, Geography, Political Science, Psychology, or Sociology.

HIST 104 World History I (3)
HIST 105 World History II (3)
HIST 205 Introduction to Historical Methods (3)

Additionally, students must take 12 credits of electives at the 300 level or above distributed in the following areas: at least three credits in European History, at least three credits in U.S. or Canadian History, and at least three credits in African, Asian, Latin American, or modern Middle Eastern History. In addition, students must take a 3 credit elective which can be in any area of history.

**History Secondary Emphasis** (12 credits)
Students must take HIST 105 World History II (3)

Students must also take 9 credits of courses at the 300 level or above distributed as follows: one course in European History; one course in the history of either Africa, Asia, Latin America, or the modern Middle East; and one course in the history of the United States or Canada.

**Political Science Primary Emphasis** (24 credits)
Students must also choose a secondary emphasis in Anthropology, Economics, Geography, History, Psychology, or Sociology.

POL 120 American National Government and Politics (3)
POL 160 International Relations (3)
POL 221 Minnesota State and Local Government (3)
POL 310 Political Science Research Methods (3)
POL 315 Political Thought (3)
POL 350 Comparative Governments of Western Europe (3)

Students must also choose six credits in Political Science electives.

**Political Science Secondary Emphasis** (12 credits)
POL 120 American National Government and Politics (3)
POL 160 International Relations (3)

Students must also choose six credits in Political Science electives.

**Psychology Primary Emphasis** (24 credits)
Students must also choose a secondary emphasis in Anthropology, Economics, Geography, History, Political Science, or Sociology.

PSY 202 Developmental Psychology (3)
PSY 261 Personality (3)

In addition to the courses listed above, students must complete 15 elective credits in Psychology courses. Six of the elective credits must be at the 300 level or above.

**Psychology Secondary Emphasis** (12 credits)
PSY 202 Developmental Psychology (3) **or**
PSY 261 Personality (3)

Students must also complete 9 elective credits in Psychology courses. Six of the elective credits must be at the 300 level or above.

**Sociology Primary Emphasis** (26 credits)
Students who choose Sociology as their primary emphasis must take SOC 110 as part of the Core requirements. In addition to the courses listed below, students must take 11 credits in Sociology electives at the 300 level or above. Students must

also choose a secondary emphasis in Anthropology, Economics, Geography, History, Political Science, or Psychology.

SOC 120 Social Psychology (3)
SOC 210 Social Problems (3)
SOC 302 Social Theory (3)
SOC 310 Dominant-Subordinate Group Relations (3)
SOC 412 Sociology of Complex Organizations (3)

**Sociology Secondary Emphasis** (12 credits)
Students who choose Sociology as their secondary emphasis must take SOC 110 as part of the Core requirements. In addition to the courses listed below, students must take three credits at the 300 level or above in Sociology courses.

SOC 210 Social Problems (3)
SOC 302 Social Theory (3)
SOC 310 Dominant-Subordinate Group Relations (3)

## BA Degree in Women's & Gender Studies

To receive the B.A. Degree in Women's and Gender Studies, the student must meet the minimum university requirements and specific requirements for the program. Completion of 120 credits is required for this degree which includes the Liberal Arts and Sciences Curriculum.

Student Learning Outcomes

- Describe how identities are socially constructed along intersecting axes of gender, race, class, sexuality and ability.
- Demonstrate knowledge of issues facing women and the movements that have responded to those issues both historically and globally.
- Recognize and analyze dynamics of social power, including relations of oppression and privilege between men and women as well as between women of different social groups.
- Evaluate issues utilizing the tools of multiple disciplines and by moving between disciplines in ways that bring those disciplines together.
- Examine the relationship between theory and practice by applying knowledge gained in the academy to circumstances, experiences and activist work outside of the academy.

**Program Delivery Mode**
Land plus: face-to-face where some online courses may be available or required

**Designated Writing Intensive Course for Major**
WS 420 - Feminism in Global Perspective

**Core Requirements (12 credits)**
WS 100 Women Today: Contemporary Women's Issues (3)
WS 247 Women's Studies: Perspectives and Intersections (3)
WS 324 Feminist Theory (3)
WS 420 Feminism in Global Perspective (3)

**Program Requirements**
Students must complete a minimum of 6 credits in the Social Justice Area, 6 credits in the Arts and Humanities Area, 6 credits in the Social and Natural Sciences Area, and 3 credits in Activism and Research. At least nine of these credits must be at the upper division level.

**SOCIAL JUSTICE AREA (minimum of 6 credits)**
WS 305/ECON 305 The Economics of Poverty, Discriminations and Inequality (3)
WS 330/SOC 330 Gender, Justice and the Environment (3)
ART 345 Art of Social & Environmental Justice (3)
AMCS 372 Dynamics of Prejudice and Oppression (3)
WS 415 Media and Diverse Identities (3)

**ARTS AND HUMANITIES AREA (minimum of 6 credits)**
WS 246/ENGL 246 Women in Literature (3)
WS 312 Rhetorics of Resistance: Feminist Responses from the Humanities (3)
WS 345/MUS 345 Women in Musical Culture (3)
WS 346/MUS 346 Sex and Sexuality in Music (3)
WS 350/HIST 350 Women in European History (4)
FILM 371 History of LGBT Representation in Film (4)
HIST 375 Women in United States History (3)
WS 408/ART 408 Women and Art (4)

**SOCIAL AND NATURAL SCIENCES AREA (minimum of 6 credits)**
WS 300/BIOL 300 Biology of Women (3)
PSY 310 Psychology of Women (3)
WS 310/SOC 310 Dominant-Subordinate Group Relations (3)
WS 333/SOC 333 Sociology of Gender (3)
WS 406/BIOL 406 DNA as Destiny: Genetics and Society (3)
CJ 400 Seminar in Criminal Justice (only when topic is "Women and Crime") (3)

**ACTIVISM AND RESEARCH (minimum of 3 credits)**
WS 390 Topics in Women's Studies (1-4)
WS 394 Research in Women's Studies (1-3)
WS 397 Independent Study (1-3)
WS 470 Undergraduate Teaching Assistant (1)
WS 412 Seminar in Women's Studies (3)
WS 469 Internship in Women's Studies (1-12)

## Minor in History
21 credits

**Core Requirements (9 credits)**
HIST 101 Critical Issues in U.S. History (3)
HIST 104 World History I (3) **OR**
HIST 105 World History II (3)
HIST 121 History of the US to 1877 (3) **OR**
HIST 122 History of the US since 1877 (3)

**Restricted Electives (12 credits)**
Choose twelve credits from the following list:
AMCS 302 Latinos of the Caribbean: Cuba, Dominican Republic and Puerto Rico (3)
AMCS 303 Latinos in the US (3)
HIST 220 Contemporary Asian America (3)
HIST 244 Women in World Religions (3)
HIST 304 Africa in World History (3)
HIST 312 Revolutionary Games (3)
HIST 373 Monsoon Asia: People and the Environment (3)
HIST 374 Plagues & Peoples: Disease and the Environment (3)
HIST 379 Environmental History (3)

## Minor in Women's & Gender Studies
18 credits

**Core Requirements (9 credits)**
WS 100 Women Today: Contemporary Women's Issues (3)
WS 247 Women's Studies: Perspectives and Intersections (3)
WS 324 Feminist Theory (3)

**Restricted Electives (9 credits)**
Students must take nine credits. Only two courses may be from the same disciplinary area.

WS 244/HIST 244 Women in World Religion (3)
WS 246/ENGL 246 Women in Literature (3)
WS 300/BIOL 300 Biology of Women (3)
WS 305/ECON 305 The Economics of Poverty, Discrimination and Inequality (3)
WS 310/SOC 310 Dominant-Subordinate Group Relations (3)
WS 312 Rhetorics of Resistance: Feminist Responses from the Humanities (3)
WS 330 Gender, Justice and the Environment (3)
WS 333/SOC 333 Sociology of Gender (3)
WS 345/MUS 345 Women in Musical Culture (3)
WS 346/MUS 346 Sex and Sexuality in Music (3)
WS 350/HIST 350 Women in European History (3)
WS 390 Topics in Women's Studies (1-4)
WS 406/BIOL 406 DNA as Destiny: Genetics and Society (3)
WS 408/ART 408 Women and Art (4)
WS 412 Seminar in Women's Studies (3)
WS 415 Media and Diverse Identities (3)
WS 420 Feminism in Global Perspective (3)
WS 470 Undergraduate Teaching Assistant (1)

AMCS 372 Dynamics of Prejudice and Oppression (3)
ART 345 Art of Social & Environmental Justice (3)
CJ 400 Seminar in Criminal Justice (only when the topic is "Women and Crime") (3)
FILM 371 History of LGBT Representation in Film (4)
HIST 375 Women in United States History (3)
PSY 310 Psychology of Women (3)

## Certificate in Women & Science
13 credits

Students must complete any Natural Science course with Lab and the following three courses:

WS 247 Women's Studies: Perspectives and

Intersections (3)
WS 300/BIOL 300 Biology of Women (3)
WS 407 Inclusive Science: Women, Gender and Science (3)

## School of Art

**Roland Dille Center for the Arts 161**
**(218) 477-2151**
**Chair:** Brad Bachmeier
**Faculty**: Anna Arnar, Brad Bachmeier, Zhimin Guan, Jim Park, Sherry Short, Wil Skynkaruk, Chris Walla
**Art Gallery Director:** Danielle Gravon

**Department Mission**
The School of Art fosters diverse, interdisciplinary educational opportunities for students in the visual arts. The department is a dynamic leader in the cultural and intellectual life of the university, community and region. Our faculty, students, and graduates embody the School of Art's legacy as a program of distinction and professional excellence.

The mission of the School of Art is to provide an educational environment that cultivates intellectual development, visual literacy, and artistic production. The department delivers diverse course offerings integrating the technical, aesthetic, and critical nexus of art making. Within the context of a liberal arts education, the department creates an environment that catalyzes the skills and talents necessary for students to make enduring contributions to culture and community in the 21st century.

Minnesota State University Moorhead is an accredited institutional member of the National Association of Schools of Art and Design (NASAD).

**Degrees offered by the School of Art**

- Bachelor of Fine Arts in Studio Art
- Bachelor of Fine Arts in Art Education
- Bachelor of Arts in Art History

**The School of Art offers the following minors and certificates:**

- Minor in Studio Art
- Minor in Art History
- Minor in Art Therapy
- Certificate in Scientific Illustration
- Certificate in Sequential Art
- Certificate in Book Illustration

**Emphasis areas in Studio Art**
Students working toward a degree in Studio Art may declare an emphasis in any of the following areas:

- Ceramics
- Drawing and Illustration
- Painting
- Sculpture

**Emphasis Area Descriptions**
**Art Education**
The only Bachelor of Fine Art in Art Education in the MN State Colleges & Universities System provides students with the skills, knowledge and practical site experiences to design and deliver contemporary art instruction in the K-12 grade school system or other venues such as museums, community centers, elder care facilities, etc. Students gain additional breadth of experience through an active art education student organization, attending state and national conferences and community outreach opportunities. Qualifications for teacher licensure in Minnesota and North Dakota will require on additional semester of student-teaching/coursework.

**Art History**
This program is offered for students whose principal interest is in museum work, teaching in higher education or other fields related to visual arts. Course requirements are designed to familiarize students with the major fields in art history.

**Ceramics**
Students learn a wide range of technical skills within the area of studio ceramics. Students are acquainted with the technology of ceramic materials and firing processes while developing sound craftsmanship as a means to personal expression.

**Drawing and Illustration**
The drawing and illustration emphasis integrates advanced drawing skills and digital applications with concepts of narrative development and visual form. In addition to this emphasis, students may also pursue distinctive certificates in scientific illustration, book illustration and sequential art. These interdisciplinary certificates provide preparation for in-demand careers.

**Painting**
After acquiring a thorough foundation in materials and techniques, students are encouraged to develop personal approaches to form and content, style and expression. Individual and group critiques, as well as slide lectures and demonstrations, guide this process. Internships are encouraged.

**Sculpture**
Students are exposed to a broad range of materials, processes, techniques, and concepts as they pertain to both traditional and non-traditional approaches to making sculpture. Topics may include, but are not limited to, wood fabrication, cold and hot steel fabrication, casting methods including bronze casting and mold making, approaches to the figure, site-specific works, self-motivated and self-guided material, technical, and content investigations incorporating unique personal imagery.

**Certificate in Scientific Illustration**
The Certificate in Scientific Illustration is an interdisciplinary set of courses focusing on illustration in the biosciences. Students interested in continuing on to graduate work in medical or scientific illustration should work closely with the certificate program coordinator. Seeking admission to the certificate in the sophomore year is recommended.

**Certificate in Sequential Art**
The Certificate in Sequential Art is an interdisciplinary set of courses designed for students preparing for careers in comic illustration, printmaking, animation, and other sequential art forms.

**Certificate in Book Illustration**
The Certificate in Book Illustration is an interdisciplinary set of courses designed to prepare students for illustrating writing and publishing books.

**ADDITIONAL DEGREE REQUIREMENTS**

**Portfolio Reviews**
Students seeking the degree in Studio Art or Art Education are required to complete two portfolio reviews; one in the spring semester of their freshman year, and the second in the fall semester of their junior year. Record of their participation in portfolio reviews is kept on file in the School of Art. Completion of these two reviews is required for advancement to the next level of study. Transfer students must meet with their School of Art advisor during their initial semester in the department to discuss scheduling a review and tailoring the review process to reflect their past experiences.

**Exhibition**
All students intending to graduate with a BFA in Studio Art or Art Education must successfully prepare a selection of works for exhibition in the Roland Dille Center for the Arts Gallery, and must take part in a group exhibition, as arranged by the Gallery Director. Application for exhibition must be made one semester prior to exhibition (March 15 for fall exhibition; October 15 for spring exhibition). A form recording the successful completion of a student's exhibition effort is forwarded to the Registrar's Office in preparation for graduation.

**Art Education Licensure**
To receive the BFA Degree in Art Education, the student must meet the minimum university requirements and specific requirements for the program. Completion of 120 credits is required for this degree which includes the Liberal Arts and Sciences Core (42 credits) and Secondary Teaching Licensure Education requirements (36 credits). Students need to fulfill the School of Teaching and Learning requirements for licensure. Qualifications for teacher licensure in Minnesota or North Dakota will require one additional semester of student teaching/coursework and will qualify students to

teach in most states and many other countries immediately.

**Art History Thesis**
Students pursuing the Art History degree will write a thesis and give a public presentation in their final year.

**Internship**
Students seeking a BFA in any area of emphasis may seek an internship. Internship requests should be made to the major advisor and must be approved for credit in advance. Art Education and Art Therapy have internships and/or practicums experiences and opportunities built into their programs.

**Transfer Credit Policy**
A student's assigned advisor or the chair can approve acceptance of transfer credits for art courses for the department's foundations program.

Transfer students seeking approval for other art courses must have those courses approved by their advisor, an instructor in the area of study, and the department chair. Signatures from the professors involved must be obtained on the Departmental Request for Course Exception form.

Students seeking transfer credit for art courses will be interviewed by a faculty member in the area of study of the transfer course. The student will be expected to present a syllabus or course outline and portfolio of work produced in the class sought for transfer credit.

Please see this ***Bulletin*** for general information and guidelines on the policy for transfer credits outside the School of Art.

**Scholarships**
In addition to standard MSUM academic scholarships, the School of Art grants Freshmen and Transfer Student Talent Scholarships and Upper Level Scholarships on a competitive basis. Contact the department office for further information. The deadline is typically Feb. 1st.

## BFA Degree in Studio Art

The Bachelor of Fine Art degree is designed to prepare students for a career in Studio Art. The BFA provides focused in-depth training in a chosen studio emphasis. Emphases include: Ceramics, Drawing and Illustration, Painting, Sculpture, and Interdisciplinary Art. To receive the BFA Degree in Studio Art, the student must meet the minimum university requirements and specific requirements for the program. Completion of 120 credits with a 2.75 GPA or above is required to graduate with this degree which includes the Liberal Arts and Sciences Curriculum. A 3.0 or above art GPA is required for graduation. Students must earn a grade of C - or higher in all program requirements.

Student Learning Outcomes

- Apply and articulate the elements of art and the principles of design.
- Develop and successfully convey artistic concepts, content, and ideas.
- Envision and develop original approaches to art making.
- Demonstrate craftsmanship.
- Utilize effective verbal communication.
- Apply professional standards for physically presenting work.
- Engage in research and demonstrate problem solving.
- Demonstrate rigor in creative output and portfolio.

**Program Delivery Mode**
Land plus: face-to-face where some online courses may be available or required

**Designated Writing Intensive Course for Major**
ART 450 - Contemporary Art, Design, and Theory (4)

**Core Requirements (28 credits)**
Students must declare an emphasis for this program.

ART 101 Foundation Drawing I (4)
ART 125 Foundation Design I (4)
ART 260 Professional Practices I (1)
ART 360 Professional Practices II (1)
ART 460 Professional Practices III (2)

ART 445 Interdisciplinary Critique (4)
ART 450 Contemporary Art, Design & Theory (4)

Two of the following (8):
ART 233 Global Art History I (3) and ART 233M Global Art History I Methods (1)
ART 234 Global Art History II (3) and ART 234M Global Art History II Methods (1)
ART 235 Global Art History III (3) and ART 235M Global Art History III Methods (1)

**Program Requirements**
Portfolio Review 1
Portfolio Review 2
Exhibition
A GPA of 2.75 or above required to graduate in art program.
A grade of C- or better must be earned in order for art courses to count towards the major.
A minimum of 5 courses must be from MSUM's School of Art.

**Restricted Electives (6-7 credits)**
Student must take 6-7 credits of the following:

Any course in ART rubric
ANIM 116 Foundations in Animation (4)
EIT 161 Intro to Copyright and Trademark Law (3)
EIT 181 Audio Technology Theory (3)
EIT 281 Studio and Live Productions (3)
ENGL 388 Creative Writing (3)
FILM 175 Video Production (4)
FILM 180 Understanding Movies (3)
FILM 275 Film Appreciation (4)
FILM 285 History of Motion Pictures (4)
GID 210 Introduction to Graphic Design (4)
GID 230 Introduction to Digital Design (4)
GID 250 Introduction to Interactive Media (4)
GID 310 Typography (4)
ENTR 229/MGMT 229 Start Your Own Business (3)
MUS 111 The Art of Listening (3)
MUS 215 History of Jazz (3)
MUS 240 American Music (3)
MUS 303 History of Western Music to 1750 (3)
MUS 304 History of Western Music since 1750 (3)
MUS 316 World Music Survey (3)
MUS 345 Women in Musical Culture (3)
MUS 346 Sex, Sexuality and Music (3)
PHIL 320/ART 320 Philosophy of the Arts (3)
PHO 201 Introduction to Film Based Photography (4)
PHO 202 Basic Digital Imaging (4)

**Ceramics Emphasis**

Program Requirements (24 credits)
ART 203A Intro to Ceramics and Clay Processes (4)
ART 303A Intermediate Pottery/Wheel Throwing (4)
ART 304A Intermediate Handbuilding/Ceramic Sculpture (4)
ART 405A Ceramics Studio (12)*

*This 4-credit course must be repeated three times.

Restricted Electives (20 credits)
ART 203x Intro Studio (must be 2D) (4)
ART 203x Intro Studio (4)
ART 203x Intro Studio (4)
300-level Intermediate Studio Course outside of emphasis (4)

Upper-level Art History (4)

***x indicates the student may select from: C-Painting, D-Printmaking, E-Sculpture, H-Drawing, L-Illustration, N-Papermaking.***

***Intro from GID, PHO, FILM, ANIM, or EIT may be accepted to fulfill one of the Introductory course requirements.***

**Painting Emphasis**

Program Requirements (24 credits)
ART 203C Intro to Painting (4)
ART 405C Painting Studio (12)*

*This 4-credit course must be repeated three times.

Two of the following:

ART 303C Painting: Technique, Color and Composition (4)
ART 304C Painting: Figure Painting (4)
ART 306C Painting: Watercolor (4)

Restricted Electives (20 credits)
ART 203x Intro Studio (must be 3D) (4)
ART 203x Intro Studio (4)
ART 203x Intro Studio (4)
300-level Intermediate Studio Course outside of emphasis (4)

Upper-level Art History (4)

***x indicates the student may select from: A-Ceramics, D-Printmaking, E-Sculpture, H-Drawing, L-Illustration, N-Papermaking.***

***Intro from GID, PHO, FILM, ANIM, or EIT may be accepted to fulfill one of the Introductory course requirements.***

**Sculpture Emphasis**

Program Requirements (24 credits)
ART 203E Introduction to Sculpture (4)
ART 405E Sculpture Studio (12)*

*This 4-credit course must be repeated three times.

Two of the following:
ART 303E Sculpture: Technique & Object Making (4)
ART 304E Sculpture: Installation & Space (4)
ART 305E Sculpture: Concepts in Materiality (4)
ART 306E Sculpture: Concepts in Contemporary Sculpture (4)

Restricted Electives (20 credits)
ART 203x Intro Studio (must be 2D) (4)
ART 203x Intro Studio (4)
ART 203x Intro Studio (4)
300-level Intermediate Studio Course outside of emphasis (4)

Upper-level Art History (4)

***x indicates the student may select from: A-Ceramics, D-Printmaking, C-Painting, H-Drawing, L-Illustration, N-Papermaking.***

***Intro from GID, PHO, FILM, ANIM, or EIT may be accepted to fulfill one of the Introductory course requirements.***

**Drawing & Illustration Emphasis**

Program Requirements (24 credits)
ART 203L Introduction to Digital Illustration (4)
ART 203H Introduction to Figure Drawing (4)
ART 405H Advanced Studies and Drawing and Illustration (8)*

*This 4-credit course must be repeated two times.

Two of the following:

ART 303H Scientific Illustration (4)
ART 304H Contemporary Drawing Concepts and Methodologies (4)
ART 305H Sequential Art (4)

Restricted Electives (20 credits)
ART 203x Intro Studio (must be 3D) (4)
ART 203x Intro Studio (4)
ART 203x Intro Studio (4)
300-level Intermediate Studio Course outside of emphasis (4)

Upper-level Art History (4)

***x indicates the student may select from: C-Painting, D-Printmaking, A-Ceramics, E-Sculpture, N-Papermaking.***

***Intro from GID, PHO, FILM, ANIM, or EIT may be accepted to fulfill one of the Introductory course requirements.***

**Interdisciplinary Art Emphasis**

- **8 credits in introductory courses outside of Primary and Secondary Studio Areas**

ART 203x Intro Studio (must be 3D or interdisciplinary course approved by advisor) (4)
ART 203x Intro Studio (must be 2D or interdisciplinary course approved by advisor) (4)

*x indicates the student may select from: A-Ceramics, C-Painting, D-Printmaking, E-Sculpture, H-Drawing, L-Illustration, N-Papermaking.*

- **20 credits in Primary Studio Area**

ART 203X Intro Studio in Primary Studio Area (4)
Two ART 300-level Studios in Primary Studio Area (8)
Two ART 405x Primary Studio Area (8)

*x indicates the student may select from: A-Ceramics, C-Painting, D-Printmaking, E-Sculpture, H-Drawing, L-Illustration, N-Papermaking.*

- **10-12 credits in Secondary Studio Area (see options below)**

**ART option (12 credits)**
ART 203x Intro Studio in Secondary Studio Area (4)
ART 300-level Studio in Secondary Area (4)
One ART 405x in Secondary Area (4)

*x indicates the student may select from: A-Ceramics C-Painting, D-Printmaking, E-Sculpture, H-Drawing, L-Illustration, N-Papermaking.*

**GID option (8 credits)**
**4-8 credits of the following:**
GID 210 Intro to Graphic Design (4)
GID 230 Intro to Digital Design (4)
GID 250 Intro to Interactive Media (4)

**And 4-8 credits of the following:**
GID 310 Typography (4)
GID 312 Visual Systems & Brand Identity (4)
GID 330 Intermediate Digital Design (4)
GID 350 Intermediate Interactive Design (4)
GID 430 Advanced Digital Design (4)
GID 450 Advanced Interactive Media (4)

**PHO/COMM option (12-13 credits)**
PHO 202 Basic Digital Imaging (4) or PHO 201 Introduction to Film Based Photography (4)
or COMM 230 Photography (3)
COMM 330 Photojournalism (3)
COMM 430 Documentary Photo (3)
COMM 431 Photo Story (3)

**EIT option (10 credits)**
EIT 161 Intro to Copyright and Trademark (3)
EIT 181 Audio Technology Theory (3)
EIT 281 Live and Studio Production (3)
EIT 361 Entertainment Activity (1)

**MUS option 1 (11 credits)**
MUS 107A Music Theory I (3)
MUS 108A Music Theory II (3)
MUS 207A Music Theory III (3)
MUS 372 Commercial Jazz/Arranging (2) or MUS 374 Instrumental/Choral Arranging (2)

**OR MUS option 2 (10 credits)**
Required (9 credits)
MUS 157x Performance Level I (2)
MUS 258x Performance Level II (4)
MUS 320x or MUS 330x Ensemble (1) *must repeat for 3 credits total

Electives (3 credits)
MUS 320x or MUS 330x Ensemble (1) *must repeat for 3 credits total
Music Performance level 3 (3)
MUS 150 A, B, C, D piano (1-3)
MUS 117 Class Guitar for non-majors (1)

Upper-level Art History (4)

## BFA Degree in Art Education

The Bachelor of Fine Art in Art Education provides students with the skills and knowledge to design and deliver art instruction in the grade school system or other venues such as museums, youth centers, elder care facilities, etc. Qualifications for teacher licensure in Minnesota or North Dakota will require one additional semester of student-teaching/coursework. To receive the BFA Degree in Art Education, the student must meet the minimum university requirements and specific requirements for the program. Completion of 120 credits with a 2.75 GPA or above is required to graduate with this degree which includes the Liberal Arts and Sciences Curriculum. Students must earn a grade of C- or higher in all program requirements.

Student Learning Outcomes

- Understanding the elements of art and the principles of design.
- Ability to develop and successfully convey artistic concepts.
- Ability to envision and develop original approaches to art making.

- Craftsmanship (skill, sensitivity, consistency of technique).
- Expressive quality (concept, style, choice of media, etc.).
- Representative skill (proportions, perspective, etc.).
- Verbal communication (professional presentation skills).
- Physical presentation (professional presentation skills).
- Overall portfolio development.

**Program Delivery Mode**
Land plus: face-to-face where some online courses may be available or required

**Designated Writing Intensive Course for Major**
ART 375 Art Methods 7-12 (4)

**Core Requirements (61 credits)**
ART 101 Foundation Drawing I (4)
ART 125 Foundation Design (4)
ART 350 Elementary Art: Methods and Materials (4)
ART 375 Art Methods 7-12 (4)
ART 402 Advanced Methods: Art Education (4)

Must take 2 of the following 3 Art History courses (with Methods) (8 credits)

ART 233 Global Art History I (3) and ART 233M Global Art History I: Methods (1)
ART 234 Global Art History II (3) and ART 234M Global Art History II: Methods (1)
ART 235 Global Art History III (3) and ART 235M Global Art History III: Methods (1)

**Total: 28 credits**

**Secondary Education Licensure Requirements**
Students must earn at least a C- or higher in all licensure coursework.

COMM 100 Speech Communication (3)
ED 205 Introduction to Education (3)
ED 294 Educational Psychology (3)
ED 310 Social Foundations of Education (3)
ED 498 The Professional Teacher in the Classroom (3)
ED 448 Reading Study Skills in the Content Areas (3)
ED 461S Student Teaching: Secondary (12) **or**
ED 460S Student Teaching: Secondary (6) **and**
EECE 480E Student Teaching: Elementary (6) **or**
ED 461V Student Teaching: Secondary/K-12 (12)
SPED 413 Teaching in Inclusive Environments (3)
**Total: 33 credits**

**Program Requirements**
Student must complete Portfolio Review 1 and 2, and an Exhibition. A grade of C- must be earned in all ART courses counted towards the major. A minimum of 5 ART courses must be taken at MSUM.

Students need to fulfill the School of Teaching and Learning's SARTE requirements in order to take the required upper level education courses.

Student teaching is NOT required for this degree; however if the student wants licensure in ND/MN, student teaching is required.

Information on MSUM Teacher Licensure can be found HERE.

**Restricted Electives (32 credits)**
ART 203x Intro Studio (4)
ART 203x Intro Studio (4)
ART 203x Intro Studio (3D) (4)
ART 203x Intro Studio (4)
ART 203x Intro Studio (4)
ART 303x,304x,305x,306x Intermediate Studio (4)
ART 303x,304x,305x,306x Intermediate Studio (4)
ART 303x,304x,305x,306x Intermediate Studio (4)

***x indicates the student may select from: A-Ceramics, C-Painting, D-Printmaking, E-Sculpture, F-Photography, H-Drawing, K-Fiber/Textiles, L-Illustration, N-Papermaking.***

## BA in Art History

The Bachelor of Arts degree in Art History is offered for students whose principal interest is in museum/gallery professions, education, research, restoration, or other fields related to the visual arts. Course requirements are designed to familiarize students with the major subject areas in Art History and interdisciplinary themes current in

the profession. Requirements include the year-long Global Art History Survey of Art and seven upper-level Art History courses. Additional courses in studio art, a foreign language, and a senior research project with a public presentation are required for graduation. To receive the B.A. Degree in Art History, the student must meet the minimum university requirements and specific requirements for the program. Completion of 120 credits is required for this degree which includes the Liberal Arts and Sciences Curriculum. Students must earn a C- or higher in all art courses.

Student Learning Outcomes

- Ability to identify the social, political, and cultural contexts of the major periods and movements in the history of art.
- Ability to identify the primary artistic concepts and apply appropriate vocabulary in the major movements of the history of art.
- Ability to conduct art historical research and exercise information literacy.
- Ability to write and appropriately format a research paper.
- Ability to deliver an effective oral presentation with the use of visual aids and technology.
- Ability to read at a rudimentary level a foreign language (based on a minimum of one year of study)

**Program Delivery Mode**
Land plus: face-to-face where some online courses may be available or required

**Designated Writing Intensive Course for Major**
ART 450 - Contemporary Art, Design, and Theory (4)

**Core Requirements (12 credits)**
Two of the following (8 total credits):

ART 233 Global Art History I (3) and ART 233M Global Art History I: Methods (1)
ART 234 Global Art History II (3) and ART 234M Global Art History II: Methods (1)
ART 235 Global Art History III (3) and ART 235M Global Art History III: Methods (1)

**AND**
ART 450 Contemporary Art, Design, and Theory (4) (WI for major)

**Program Requirements**
Students must earn 6 credits in ART 479. This course is titled Art History Thesis, and as a graduation requirement, students are required to present their Art History Thesis publicly.

**Related Requirements (8 credits)**
Students must take at least one year of a foreign language (eight credits), or demonstrate equivalent competency. Ancient, medieval or modern languages may be used to fulfill the requirement. For students intending to pursue graduate level education, a second foreign language is strongly recommended.

**Restricted Electives (36 credits)**
Students must earn 8 credits in Studio.
ART 101 Foundation Drawing I (4)
ART 125 Foundation Design (4)

Students must earn 28 credits in Art History courses at the 300 level or higher.

ART 345 Art of Social and Environmental Justice (3)
ART 408 Women and Art (4)
ART 425 Art History Field Experience (4)
ART 430 Nineteenth Century Art (4)
ART 431 Twentieth Century Art (4)
ART 485 Professional Curatorial Practice (4)
ART 390/ART 490 Topics in Art (must be Art History Topic - may be repeated as different topics) (1-3)

**Recommended Electives**
Courses in history, religion, philosophy, literature, anthropology, archaeology, humanities, multicultural studies, American studies, Women's and Gender Studies, Foreign Language/Literature/Culture, and Business may be beneficial to students in this emphasis and should be chosen in consultation with the art history program coordinator.

HIST 226 Introduction to Cultural Management (3)
ART 320 Philosophy of the Arts (3)
ART 469 Internship (1-6)

## Minor in Art

25-26 credits

**Core Requirements (8 credits)**

ART 101 Foundation Drawing I (4)
ART 125 Foundation Design (4)

**Restricted Electives (17-18 credits)**

Students must complete two courses from the following list: (6 credits)

ART 170 Art Appreciation (3)
ART 233 Global Art History I (3)
ART 234 Global Art History II (3)
ART 235 Global Art History III (3)
ART 270 Visual Culture (3)
ART 345 Art of Social and Environmental Justice (3)

**AND**

Students must take 3 courses from the following list: (11-12 credits)

ART 203A Introduction to Ceramics and Clay Processes (4)
ART 203C Introduction to Painting (4)
ART 203D Introduction to Printmaking (4)
ART 203E Introduction to Sculpture (4)
ART 203H Introduction to Figure Drawing (4)
ART 203L Introduction to Digital Illustration (4)
ART 203N Introduction to Papermaking (4)
ART 311 Pottery: Principles of Production and Design (3)
Any 300-level studio art class (4)

## Minor in Art History

28 credits

**Core Requirements (8 credits)**

Two of the following (8 total credits):

ART 233 Global Art History I (3) and ART 233M Global Art History I: Methods (1)
ART 234 Global Art History II (3) and ART 234M Global Art History II: Methods (1)
ART 235 Global Art History III (3) and ART 235M Global Art History III: Methods (1)

**Restricted Electives (4 credits)**

Students must earn four credits from the following list of courses:

ART 101 Foundation Drawing I (4)
ART 125 Foundation Design (4)

**Electives (16 credits)**

Students must earn sixteen credits in Art History courses at the 300 level or above.

## Minor in Art Therapy

34-36 credits

The School of Art and the Psychology Department work in tandem to offer a minor in Art Therapy. This rapidly expanding mental health profession utilizes the creative process of art making with individuals of all ages to improve and enhance their physical, mental, and emotional well-being. Art therapy practice reflects a belief that the creative process involved in artistic self-expression helps people to resolve conflicts and problems, develop interpersonal skills, manage behavior, reduce stress, increase self-esteem and self-awareness, and achieve insight. The techniques and methods of art therapy can enhance one's skills in related majors and fields such as: Psychology, Sociology, Health, Recreation and Leisure, Fine Arts and Criminal Justice. Our minor provides a foundation for continued study, or for work in community arts programs and organizations where art is used as part of the therapeutic or recreational process. This minor meets and exceeds the American Art Therapy Association's basic requirements for entrance into their approved graduate programs by requiring 18 studio art credits and 12 psychology credits. Additionally, our minor includes an Introduction to Art Therapy course and an Art Therapy related field experience practicum. Should a student wish to go to graduate school in art therapy he/she is advised to consult the graduate bulletin of the institution he/she wishes to attend for institution specific entrance requirements. Art therapists are masters' or doctorate level professionals who hold a degree in art therapy or a related field. Graduate Study in Art therapy integrates the fields of human development, visual art modalities (drawing, painting, sculpture, and

other art forms), and the creative process with models of counseling and psychotherapy. Art therapy programs are found in a number of settings including hospitals, clinics, public and community agencies, wellness centers, educational institutions, businesses, elder-care facilities and private practices.

**Core Requirements (27-28 credits)**

Psychology Requirements (12 credits)
PSY 113 General Psychology (3)
PSY 202 Developmental Psych (3)
PSY 261 Personality (3)
PSY 463 Abnormal Psychology (3)

Art Core Requirements (11-12 credits)

ART 101 Basic Drawing I (4)
ART 125 Foundation Design (4)
ART 311 Pottery: Principles and Production (3) **OR**
ART 203A Intro to Ceramics
(4)

Art Therapy Requirements (4 credits)
PSY 325/ART 325 Introduction to Art Therapy (3)
ART 467 Art Therapy Related Field Experience (1)

**Restricted Electives (7-8 credits)**
ART 203C Introduction to Painting (4)
ART 203D Introduction to Printmaking (4)
ART 203E Introduction to Sculpture
(4)

ART 203F Introduction to Photography (4)
ART 203L Introduction to Illustration
(4)

ART 350 Elementary Methods and Materials (3)

## Certificate in Book Illustration

The Certificate in Book Illustration is an interdisciplinary set of courses designed to prepare students for careers in illustrating books.

Student Learning Outcomes

- Integrate visual images, content, and layout of textual narratives.
- Develop illustration skills across a range of media.
- Understand the types and functions of narrative structure.

**Core Requirements (23 credits)**
ART 101 Foundation Drawing I (4)
ART 125 Foundation Design (4)
ART 203L Introduction to Digital Illustration (4)
ART 203C Introduction to Painting (4) **or**
ART 306C Painting: Watercolor (4)
ENGL 288 Introduction to Creative Writing (3)
GID 210 Introduction to Graphic Design (4)

**Restricted Electives (5-7 credits)**
5-7 credits of restricted electives from the list below:

ART 203N Introduction to Papermaking (4) **or**
ART 203D Introduction to Printmaking (4)
ENGL 388 Creative Writing (3)
GID 310 Typography (4)
ART 400L Individualized Studies in Illustration (1-2)

## Certificate in Sequential Art

Certificate in Sequential Art is an interdisciplinary set of courses designed for students preparing for careers in comic illustration, animation, and other sequential art forms.

Student Learning Outcomes

- Understand the structures of sequential visual narratives.
- Develop an interdisciplinary skill set in demand in careers in sequential art.

**Core Requirements (19 credits)**
ART 101 Foundation Drawing (4)
ART 125 Foundation Design (4)
ART 305H Sequential Art (4)
ENGL 288 Introduction to Creative Writing (3)
ART 203L Introduction to Illustration (4) **OR**
GID 230 Introduction to Digital Design (4) **OR**
GID 210 Introduction to Graphic Design (4)

**Restricted Electives (9-10 credits)**
9-10 credits of restricted electives from the list below:

ART 203L Introduction to Illustration (4) (if not taken in core)
ANIM 375 Stop-Motion Animation (4)
ENGL 388 Creative Writing (3)
ENGL 234 Mythology (3)
ENGL 335 World Mythology (3)
ENGL 183 Introduction to American Short Story (3)
ENGL 280 World Literature: East and West (3)
ENGL 346 Virtue and Vice in Gothic Storytelling (3)

## Certificate in Scientific Illustration

The Certificate in Scientific Illustration is an interdisciplinary set of courses focusing on illustration in the biosciences. Students interested in continuing on to graduate work in medical or scientific illustration should work closely with the Certificate Program Coordinator. Seeking admission to the certificate in the sophomore year is recommended.

**Admission Requirements**
Students seeking this certificate must demonstrate basic drawing competencies through a portfolio review with the program coordinator or by completing ART 101 and ART 125 with a C- or better.

Student Learning Outcomes

- Develop perceptional drawing skills and technical abilities necessary for realistically rendering plant and animal forms
- Understand relationships between form and function of organisms as well as relationships of organisms to their environments
- Develop interdisciplinary knowledge bridging science and illustration

**Core Requirements (16 credits)**
ART 203L Digital Illustration (4)
ART 203H Introduction to Figure Drawing (4)
ART 303H Scientific Illustration (4)
BIOL 115/BIOL 115L Organismal Biology & Lab (4)

**Restricted Electives (11-13 credits)**
ART 400L Individualized Studies in Illustration (2)
**OR**
ART 400H Individualized Studies in Figure Drawing (2)
CHEM 150/CHEM 150L General Chemistry I and Lab (4)
CHEM 210/CHEM 210L General Chemistry II and Lab (4)
BIOL 111/BIOL 111L Cell Biology and Lab (4)
BIOL 305/BIOL 305L General Botany and Lab (4)
BIOL 321/BIOL 321L Invertebrate Zoology and Lab (3)
BIOL 322/BIOL 322L Vertebrate Zoology and Lab (4)
BIOL 323/BIOL 323L Human Anatomy and Lab (4)
BIOL 326/BIOL 326L Minnesota Plant Identification and Lab (4)
BIOL 347/BIOL 347L Plant Physiology and Lab (4)
BIOL 349/BIOL 349L Human Physiology and Lab (4)

## Certificate in Museum & Cultural Heritage Professions

The Certificate in Museum and Cultural Heritage Professions is designed to familiarize students with the protocols, practices, and career opportunities in the field of Museum and Cultural Heritage.

Student Learning Outcomes

- Identify the professional practices and protocols of museum and cultural heritage professions.
- Apply professional practices of these fields through hands-on projects in courses such as Art 485, Art 469, or Hist 226.

**Core Requirements (20 credits)**
Select two from the following three course groupings for a total of 8 credits:

ART 233 and ART 233M Global Art History I (3) and Methods (1)
ART 234 and ART 234M Global Art History II (3) and Methods (1)
ART 235 and ART 235M Global Art History III (3) and Methods (1)

ART 485 Professional Curatorial Practice (4) OR
ART 469 Internship (4)

Additionally, select:

Choose 2 Upper-Level Art History courses 300 and above from list for 8 total credits

ART 345 Art of Social and Environmental Justice (3)
ART 408 Women and Art (4)
ART 425 Art History Field Experience (4)
ART 430 Nineteenth Century Art (4)
ART 431 Twentieth Century Art (4)
ART 390/ART 490 Topics in Art (must be art history topic - may be repeated as different topics) (1-3)

**Restricted Electives (6-8 credits)**
Select two courses from list:

ART 485 Professional Curatorial Practice (4) *if not taken in above core requirements
ART 469 Internship (4) *if not taken in above core requirements
EIT 261 Legal and Ethical Issues in Entertainment (3)
FILM 460 Curating and Programming Media Arts (4)
HIST 226 Introduction to Cultural Management (3)
LEAD 301 Introduction to Leadership (3)
MKTG 270 Principles of Marketing (3)

## School of Media Arts and Design

**Roland Dille Center for the Arts 116, (218) 477-2126**
**Chair:** Ryan Jackson
**Faculty:** Anthony Adah, Ryan Clancy, Don Clark, Trista Conzemius, Alexandria Fogarty, Nan Hu,

*The **School of Media Arts & Design** offers majors in Animation, Film Production, Film Studies, and Graphic & Interactive Design. Minors offered are in Film Studies, Film Production, Graphic & Interactive Design, and Media Arts.*

The faculty and students of the School of Media Arts & Design are linked together by a common focus on the creation and analysis of messages that powerfully affect their chosen audience. We provide a challenging, contemporary, relevant curriculum within the context of the liberal arts that prepares our graduates to become contributing and ethical citizens in a diverse, global community. We promote creativity, critical thinking, and lifelong discovery through courses that integrate theory and history with practice and application.

**Animation**
The **BFA degree in Animation** provides a broad range of classes that focus on both traditional and contemporary animation techniques, including the theory, practice, and aesthetics of motion image creation, image sequencing, and frame manipulation. Students are introduced to filmic systems, motion image history and theory, media arts practices, as well as a range of software, hardware, practical tools and techniques.

Course projects and lectures focus on stop motion, rotoscoping, pixilation, technical graphics, motion graphics, 3D modeling, abstract and experimental animation, animation for live performance, installation, interactive and new media environments.

Graduates may find employment with animation studios, video production houses, television stations, multimedia, web, and advertising agencies, as well as data visualization markets in science, medical, and business fields.

**Film**
The School of Media Arts & Design offers a **BFA degree in Film Production**, as well as a **BA degree in Film Studies**. These majors are designed for students who wish to work in some aspect of the film industry as well as those who are interested in the academic study of film.

The Film Studies major focuses on the theoretical and historical analysis of cinema as it relates to various genres, directors, and other topical studies. Emphasis is placed in visual and critical analysis, media literacy, curating, festival programming and critical writing skills. Students are encouraged to build a writing portfolio and to present academic work at the Student Academic Conference, as well as professional conferences.

The Film Production major gives students the opportunity to get hands-on experience in

directing, producing, cinematography, sound and picture editing, sound recording, and screenwriting. Production classes incorporate the traditional format of 16mm film, HD video and new digital technologies into the curriculum. Abstract motion image creation, experimental practices, installation, documentary and non-fiction practices, as well as narrative filmmaking are all taught within the major. Students will build a portfolio of work from freshman through senior year.

Graduates of our program have gone on to work for major galleries, film festivals, post-production houses, trailer and special effects houses, television networks, independent feature film production, and freelance positions in all departments of production. Additionally, our students have gone on to some of the top graduate schools in North America.

**Graphic & Interactive Design**

**BFA degree in Graphic & Interactive Design** majors conduct in-depth conceptual and technical investigations to achieve effective visual communication solutions. The major has a strong core of foundational art and design topics, and students are able to continue their studies in one of three emphases that include:

- Digital Design & Production – provides in-depth practice in digital layout, vector illustration, raster artwork, mobile-to-desktop design workflow, print processes, and augmented reality.
- Graphic Design – traditional graphic design that relates to symbols, typography, information and experience design, systems, visual concepts, and visual research.
- Interactive Media – includes web, mobile, motion, virtual reality, and immersive experiences.

For all emphases, projects may include logos, brochures, posters, magazine layouts, packaging, web sites, mobile applications, motion graphics, immersive experiences, and many more issues that deal with visual communications and society.

## BFA Degree in Animation

The Animation major concentrates on the creation of traditional stop-motion animation, 2D animation, 3D animation, technical graphics, 3D modeling, and additional techniques used in the animation industry, including game graphics and 3D simulations. Classes also include film, animation, and media arts studies, as well as video and audio production. Graduates may find employment with animation studios, video production houses, television stations, music industry, multimedia, web, and advertising agencies. To receive the B.F.A. Degree in Animation, the student must meet the minimum university requirements and specific requirements for the program. Completion of 120 credits is required for this degree which includes the Liberal Arts and Sciences Curriculum.

Student Learning Outcomes

- Students will utilize and demonstrate proficiency in the three phases of animation production (pre-production, production, and post-production) in the creation of short animated projects in studio classes.
- Students will demonstrate knowledge of animation history, animation theory, and animation aesthetics.
- Students will demonstrate knowledge and application of animation principles, practices and techniques. These include: specialized use of animation lexicon, traditional stop motion animation techniques (including mise-en-scene, cinematography principles, lighting and sound design, directing, producing and editing concepts), motion graphics, 2D computer animation, 3D modeling and 3D computer animation.
- Students will be able to examine and analyze animation texts, articulate conclusions as to their historical and critical values, and integrate critical research into creative practice.
- Students will integrate theory and research skills in the creation of a

capstone project for academic public presentation, as well as demonstrate an ability to work collaboratively on a creative team of animators.

**Program Delivery Mode**
Land plus: face-to-face where some online courses may be available or required

**Designated Writing Intensive Course for Major**
FILM 480 Critical Approaches to Film & Media Arts (4)

**Core Requirements (54 credits)**
The core is required of all students majoring in Animation. A grade of "C" or higher in ANIM 492B is required for graduation.

ANIM 116 Foundations in Animation (4)
ANIM 216 3D Modeling (4)
ANIM 316 3D Animation (4)
ANIM 416 Animation Studio (4)
ANIM 366 2D Animation & Motion Graphics (4)
ANIM 375 Stop-Motion Animation (4)
ANIM 492A Capstone Research (1)
ANIM 492B Capstone Project (3)
ENGL 285 Scriptwriting (3)
FILM 175 Video Production (4)
FILM 275 Film Appreciation (4)
FILM 285 History of Motion Pictures (4)
FILM 480 Critical Approaches to Film & Media Arts (4)
GID 230 Introduction to Digital Design (4)
PHO 202 Basic Digital Imaging (4)

**Program Requirements**
**Students must successfully complete the following:**

- Completion of Foundational Portfolio Review
- Completion of Thesis Portfolio Review
- Completion of Capstone Portfolio Review

**Computer and Software Requirements:**
The Animation program suggests using a Windows PC. Your laptop/desktop needs to meet the requirements for the software taught (Maya, Adobe CC) and Maya needs to be installed prior to the first week of classes to ensure continuity.

**Suggested Specifications:**

- 10th gen Intel Core i7 / 3rd gen AMD Ryzen 7 or higher
- NVIDIA GTX 2060 equivalent or higher
- 16 GB of RAM or higher
- Three-button mouse

**Models we currently recommend:**

- $1250 approximate cost. HP Omen Gaming Notebook
- $1350 approximate cost. Lenovo Legion 5 Gaming Laptop
- $1700 approximate cost. Gigabyte AORUS Gaming Notebook

**Software:**
Microsoft Office - *available for student rates and to download at https://www2.mnstate.edu/it/office365/*

A free student license for all Autodesk products (3dsMax, Mudbox, Maya) can be requested here: https://www.autodesk.com/education/free-software/featured. The Adobe CC is provided to all SOMAD students enrolled in SOMAD classes.

**Restricted Electives (16 credits)**
ANIM 290 Topics in Animation (1-3)
ANIM 390 Topics in Animation (1-3)
ANIM 469 Internship (1-12)
ANIM 490 Topics in Animation (1-3)
ANIM 494 Undergraduate Research in Animation (1-5)
ANIM 497 Independent Study in Animation (1-3)
ART 101 Foundation Drawing I (4)
ART 170 Art Appreciation: Content and Form (3)
COMM 230 Photography (3)
COMM 352 Social Media Campaigns (3)
COMM 400 Mass Media Ethics & Issues (3)
EIT 161 Intro to Copyright and Trademark Law (3)
EIT 182 Intro to Audio Recording (2)
EIT 261 Legal and Ethical Issues in Entertainment (3)
EIT 281 Studio and Live Productions (3)
EIT 383 Sound for Film and Video (3)
ENGL 286 Writing for the Workplace (3)
ENGL 288 Introduction to Creative Writing (3)

ENGL 388 Creating Writing (3)
FILM 232 Principles of Make-up for Stage & Film (2)
FILM 265 16 mm Production (4)
FILM 290 Topics in Film (1-3)
FILM 302 Practicum (1)
FILM 365 International Cinemas (4)
FILM 371 History of LGBT Representation in Film (4)
FILM 372 Editing Techniques (4)
FILM 378 Techniques of Producing (4)
FILM 383 Adaptations to Film (4)
FILM 384 Techniques of Film Directing (4)
FILM 386 Film and Media Arts Genres(4)
FILM 387 Authorship in Film & Media Arts (4)
FILM 388 Research Methods in Film & Media Arts (4)
FILM 390 Topics in Film (1-3)
FILM 460 Curating and Programming Media Arts (4)
FILM 472 Community Video Project (4)
FILM 465 Advanced 16 mm Production (4)
FILM 490 Topics in Film (1-3)
GID 230 Introduction to Digital Design (4)
GID 330 Intermediate Digital Design (4)
GID 430 Advanced Digital Design (4)
GID 434 Digital Prepress & Production (4)
GID 350 Intermediate Interactive Media (4)
GID 450 Advanced Interactive Media (4)
PHIL 320/ART 320 Philosophy of the Arts (3)
THTR 230 Acting I: Principles (3)
THTR 232 Principles of Makeup for Stage and Film (2)
THTR 234 Theatrical Design Principles (3)
THTR 235 Directing I: Principles (3)
THTR 255 Stagecraft (3)
THTR 356 Lighting Studio (3)
PHO 201 Intro to Film Based Photography (4)
WS 415 Media and Diverse Identities (3)

## BFA Degree in Film Production

The Film Production major is designated for students who wish to work in some aspect of the film industry as well as those who are interested in the academic study of film. Classes incorporate the traditional format of film and new digital technologies into the curriculum. The Film Production major gives students the opportunity to get hands-on experience in the development of mise-en-scène, lighting design, cinematography, sound design, editing, directing, producing and screenwriting.

To receive the B.F.A. Degree in Film Production, students must meet the minimum university requirements and specific requirements for the program. Completion of 120 credits is required for this degree which includes the Liberal Arts and Sciences Curriculum.

Student Learning Outcomes

- Students will utilize and demonstrate proficiency in the three phases of film production (pre-production, production, and post-production) in the creation of short film and video projects in studio classes.
- Students will demonstrate knowledge of film history, film theory, production and post-production aesthetics.
- Students will demonstrate knowledge and application of filmmaking principles, practices and techniques. These include: specialized use of film lexicon, creative production of video and 16mm content (including mise-en-scene, cinematography principles, lighting design, sound design, directing, producing and editing concepts, in both analog and digital mediums), single-camera production, single-system sound, double-system sound, individual portfolio development, and crew-based production models.
- Students will be able to examine and analyze film texts, articulate conclusions as to their historical and critical values, and integrate critical research with creative practice.
- Students will integrate theory and research skills in the creation of a capstone project for academic public presentation, as well as demonstrate an ability to work collaboratively on a crew-based, creative team of filmmakers.

**Program Delivery Mode**

Land plus: face-to-face where some online courses may be available or required

**Designated Writing Intensive Course for Major**
FILM 480 Critical Approaches to Film & Media Arts (4)

**Core Requirements (44 credits)**
The core is required of all students majoring in Film Production. A grade of "C" or higher in FILM 492B is required for graduation.

ENGL 285 Scriptwriting (3)
FILM 101A Film Practicum (1)
FILM 175 Video Production (4)
FILM 275 Film Appreciation (4)
FILM 285 History of Motion Pictures (4)
FILM 265 16mm Production (4)
FILM 365 International Cinemas (4)
FILM 465 Advanced 16mm Production (4)
FILM 480 Critical Approaches to Film & Media Arts (4)
FILM 492A Capstone Research (1)
FILM 492B Capstone Project (3)
PHO 201 Intro to Film Based Photography (4)
PHO 202 Basic Digital Imaging (4)

**Program Requirements**
**Student must successfully complete the following requirements:**

- Completion of Foundational Portfolio Review
- Completion of Thesis Portfolio Review
- Completion of Capstone Portfolio Review

**FILM and GID Computer and Software Requirements:**

The FILM and GID programs have a laptop recommendation. While computer labs are available to you, we want you to have a computer powerful enough for at home use. Current equipment specifications as well as any purchase options will be discussed during the first semester of enrollment. Educational pricing for hardware purchases can be made at https://www.apple.com/us-hed/shop/back-to-school. Software resources are referenced below.

**LAPTOP**

Our recommendation is a **MacBook Pro**. A 13" model customized with 16GB of RAM will suffice for your curriculum, however the 14" and 16" models have larger screens, better CPU processing and graphic power, and an HDMI out built in. The 14" and 16" models can accommodate more than 16GB of RAM as well whereas the 13" inch maximum is 16GB.

You will need a USB-C to USB adapter as well. USB-C hubs featuring ethernet, HDMI out (if 13" model), and passthrough charging are also available online (less expensive than Apple).

**SOFTWARE:**

- Microsoft Office - available for student rates and to download at https://www2.mnstate.edu/it/office365/
- An Adobe CC license will be provided to all SoMAD majors (ANIM, FILM, GID).

**Restricted Electives (26 credits)**
Restricted Theory Electives - 4 credits from list
FILM 371 History of LGBT Representation in Film (4)
FILM 383 Adaptations to Film (4)
FILM 386 Film and Media Arts Genres(4)
FILM 387 Authorship in Film & Media Arts (4)
FILM 388 Research Methods in Film & Media Arts (4)

Restricted Production Electives - 8 credits from list
ANIM 375 Stop-Motion Animation (4)
FILM 372 Editing Techniques (4)
FILM 378 Techniques of Producing (4)
FILM 384 Techniques of Film Directing (4)

Other Restricted Electives - 14 credits from list
ANIM 116 Foundations in Animation (4)
ANIM 216 3D Modeling (4)
ANIM 316 3D Animation (4)
ART 170 Art Appreciation: Content and Form (3)
ART 233 Global Art History I (3)
ART 234 Global Art History II (3)
COMM 210 Media Writing (3)
COMM 230 Photography (3)
COMM 251 Video Production for Ad, News & PR (3)
COMM 352 Social Media Campaigns (3)
COMM 400 Mass Media Ethics and Issues (3)
EIT 161 Intro to Copyright and Trademark Law (3)

EIT 182 Intro to Audio Recording (2)
EIT 261 Legal and Ethical Issues in Entertainment (3)
EIT 281 Studio and Live Productions (3)
EIT 383 Sound for Film and Video (3)
ENGL 288 Introduction to Creative Writing (3)
ENGL 388 Creating Writing (3)
FILM 232 Principles of Make-up for Stage and Film (2)
FILM 290 Topics in Film (1-3)
FILM 302 Practicum (1) - (Pre-req = 101A)
FILM 390 Topics in Film (1-3)
FILM 416 Special Projects in Film (1-3)
FILM 460 Curating and Programming Media Arts (4)
FILM 469 Internship (1-12)
FILM 472 Community Video Project (4)
FILM 490 Topics in Film (1-3)
FILM 494 Undergraduate Research (1-5)
FILM 497 Independent Study (1-3)
GID 230 Introduction to Digital Design (4)
GID 250 Introduction to Interactive Media (4)
PHIL 320/ART 320 Philosophy of the Arts (3)
THTR 230 Acting I: Principles (3)
THTR 232 Principles of Makeup for Stage and Film (2)
THTR 234 Theatrical Design Principles (3)
THTR 235 Directing I: Principles (3)
THTR 255 Stagecraft (3)
THTR 322 Survey of Western Theatre History and Drama (3)
THTR 356 Lighting Studio (3)
WS 415 Media and Diverse Identities (3)

## BA Degree in Film Studies

The Film studies major is designed for students who wish to work in some aspect of the film industry as well as those who are interested in the academic study of film. Classes incorporate the traditional format of film and new digital technologies into the curriculum. The Film Studies major focuses on the theoretical and historical analysis of cinema and media arts, as it relates to genres, authorship, curating, and various critical and theoretical approaches.
To receive the B.A. Degree in Film Studies, the student must meet the minimum university requirements and specific requirements for the program. Completion of 120 credits is required for this degree which includes the Liberal Arts and Sciences Curriculum.

Student Learning Outcomes

- Students will utilize and demonstrate proficiency in the three phases of film production (pre-production, production, and post-production) in the creation of short film and video projects, in related studio classes.
- Students will demonstrate knowledge of film history, film theory, production and post-production aesthetics.
- Students will demonstrate critical thinking, analytical reasoning and critical analysis of filmmaking principles, practices and techniques. These include: specialized use of film lexicon, analysis related to craft and cinematic expression (including mise-en-scene, cinematography principles, lighting design, sound design, directing, producing and editing concepts), and analysis of a broad range of film texts (genre studies, directors studies, research methods, international cinemas, and adaptation theory).
- Students will be able to examine and analyze film texts, articulate conclusions as to their historical and critical values, and begin developing their own critical research.
- Students will integrate theory and research skills in the creation of a capstone thesis paper for academic public presentation.

**Program Delivery Mode**
Land plus: face-to-face where some online courses may be available or required

**Designated Writing Intensive Course for Major**
FILM 480 Critical Approaches to Film & Media Arts (4)

**Core Requirements (42 credits)**
The core is required of all students majoring in Film Studies. A grade of "C" or higher in FILM 492B is required for graduation.

FILM 175 Video Production (4)
FILM 275 Film Appreciation (4)
FILM 285 History of Motion Pictures (4)
FILM 302 Practicum (1)
FILM 365 International Cinemas (4)
FILM 386 Film and Media Arts Genres (4)
FILM 387 Authorship in Film & Media Arts (4)
FILM 388 Research Methods in Film & Media Arts (4)
FILM 460 Curating and Programming Media Arts (4)
FILM 480 Critical Approaches to Film & Media Arts (4)
FILM 469 Internship (1)
FILM 492A Capstone Research (1)
FILM 492B Capstone Project (3)

**Program Requirements**
**Students must successfully complete the following:**

- Completion of Foundational Portfolio Review
- Completion of Thesis Portfolio Review
- Completion of Capstone Portfolio Review

**FILM and GID Computer and Software Requirements:**

The FILM and GID programs have a laptop recommendation. While computer labs are available to you, we want you to have a computer powerful enough for at home use. Current equipment specifications as well as any purchase options will be discussed during the first semester of enrollment. Educational pricing for hardware purchases can be made at https://www.apple.com/us-hed/shop/back-to-school. Software resources are referenced below.

**LAPTOP**

Our recommendation is a **MacBook Pro**. A 13" model customized with 16GB of RAM will suffice for your curriculum, however the 14" and 16" models have larger screens, better CPU processing and graphic power, and an HDMI out built in. The 14" and 16" models can accommodate more than 16GB of RAM as well whereas the 13" inch maximum is 16GB.

You will need a USB-C to USB adapter as well. USB-C hubs featuring ethernet, HDMI out (if 13" model), and passthrough charging are also available online (less expensive than Apple).

**SOFTWARE:**

- Microsoft Office - available for student rates and to download at https://www2.mnstate.edu/it/office365/
- An Adobe CC license will be provided to all SoMAD majors (ANIM, FILM, GID).

**Restricted Electives (16 credits)**
**Restricted Film & Media Studio Electives - 8 credits from list**
ANIM 375 Stop-Motion Animation (4)
EIT 182 Intro to Audio Recording (2)
FILM 372 Editing Techniques (4)
FILM 378 Techniques of Producing (4)
FILM 383 Adaptations to Film (4)
FILM 472 Community Video Project (4)
GID 230 Introduction to Digital Design (4)
GID 250 Introduction to Interactive Media (4)
PHO 202 Basic Digital Imaging (4)

**Other Restricted Electives - 8 credits from list**
Must include one FILM course.

ART 233 Global Art History I (3)
ART 234 Global Art History II (3)
COMM 301 Business and Professional Communication (3)
COMM 351 Messaging for Mobile Media (3)
COMM 352 Social Media Campaigns (3)
COMM 365 Media Planning (3)
COMM 383 Event Planning (3)
COMM 423 Marketing Communications (3)
ENGL 285 Scriptwriting(3)
FILM 265 16 mm Production (4)
FILM 290 Topics in Film (1-3)
FILM 384 Techniques of Film Directing (4)
FILM 390 Topics in Film (1-3)
FILM 416 Special Projects in Film (1-3)
FILM 469 Internship (1-12)
FILM 490 Topics in Film (1-3)
PHIL 320 Philosophy of the Arts (3) **or**
ART 320 Philosophy of the Arts (3)

THTR 230 Acting I: Principles (3)
THTR 235 Directing I: Principles (3)
THTR 255 Stagecraft (3)
THTR 322 Drama II (3)

## BFA Degree in Graphic & Interactive Design

Graphic & Interactive Design majors conduct in-depth conceptual and technical investigations to achieve effective visual communication solutions. The major has a strong core of foundational art and design topics, and students are able to continue their studies in one of three emphases that include:

- Digital Design & Production – provides in-depth practice in digital layout, vector illustration, raster artwork, mobile-to-desktop design workflow, print processes, and augmented reality;
- Graphic Design – traditional graphic design that relates to symbols, typography, information and experience design, systems, visual concepts, and visual research;
- Interactive Media – includes web, mobile, motion, virtual reality, and immersive experiences;

For all emphases, projects may include logos, brochures, posters, magazine layouts, packaging, web sites, mobile applications, motion graphics, immersive experiences, and many more issues that deal with visual communications and society.
To receive the BFA Degree in Graphic and Interactive Design, the student must meet the minimum university requirements and specific requirements for the program. Completion of 120 credits is required for this degree which includes the Liberal Arts and Sciences Curriculum. A 3.0 GPA or above in major requirements is required for graduation. Students must earn a grade of C- or higher in any major course requirement.

Student Learning Outcomes

The Graphic & Interactive Design major offers a modern approach to the evolving field of visual communication. More and more, students are called upon to have backgrounds in the various fields of media arts including sound, film, and motion, as well as a firm command of digital production, technology, and interactivity. This program takes into account what employers are looking for in today's design graduates by offering a broad exposure to design principles, practices and problem-solving, as well as emphases that reflect different creative career pathways.

The competencies listed below are taken from the National Association of Schools of Art & Design Handbook (Section IX.C.3 Digital Media and Section X.C.3 Communication Design), our accrediting agency.

**From Section IX.C.3 Digital Media:**

3. Essential Competencies *(in addition to those stated for all professional degree programs in Standards for Accreditation VIII.B. and C.)*:
A. Knowledge of the concepts related to the visual, spatial, sound, motion, interactive, and temporal elements/features of digital technology and principles for their use in the creation and application of digital media-based work.
B. Understanding of narrative and other information/language structures for organizing content in time-based or interactive media; the ability to organize and represent content structures in ways that are responsive to technological, social, and cultural systems.
C. Understanding of the characteristics and capabilities of various technologies (hardware and software); their appropriateness for particular expressive, functional, and strategic applications; their positions within larger contexts and systems; and their influences on individuals and society.
D. Knowledge of the processes for the development and coordination of digitally-based art and design strategies (for example, storyboarding, concept mapping, and the use of scenarios and personas).
E. Ability to analyze and synthesize relevant aspects of human interaction in various contexts (e.g., physical, cognitive, cultural, social, political, economic, etc.) and with respect to technologically-mediated communication, objects, and environments.
F. Understanding of what is useful, usable, effective, and desirable with respect to user/

audience-centered digitally-based communication, objects, and environments.
G. Knowledge of history, theory, and criticism with respect to such areas as film, video, technology, and digital art and design.
H. Ability to work in teams and to organize collaborations among people from different disciplines.
I. Ability to use the above competencies in the creation and development of professional quality digital media productions.

**From Section X.C.3 Communication Design:**

3. Essential Competencies, Opportunities, and Experiences
A. The ability to conceive and to design visual communications and systems involving various integrations of the elements of professional practice outlined in items 3.b. through g. below.
B. Understanding and use of basic visual communication principles and processes, including but not limited to: •Understanding of how communication theories, principles, and processes have evolved through history and the ability to use this knowledge to address various types of contemporary problems.
•Understanding of and ability to develop strategies for planning, producing, and disseminating visual communications.
•Functional knowledge of creative approaches, and the analytical ability to make appropriate, purpose-based choices among them, and to use such approaches to identify communication opportunities and generate alternative solutions.
•Ability to plan the design process and construct narratives and scenarios for describing user experiences.
•Fluency in the use of the formal vocabulary and concepts of design—including content, elements, structure, style, and technology—in response to visual communication problems. Studies in critical theory and semiotics are strongly recommended.
•Ability to develop informed considerations of the spatial, temporal, and kinesthetic relationships among form, meaning, and behavior and apply them to the development of various types of visual communication design projects.
•Ability to use typography, images, diagrams, motion, sequencing, color, and other such elements effectively in the contexts of specific design projects.
C. Ability to incorporate research and findings regarding people and contexts into communication design decision-making, including but not limited to:
•Ability to frame and conduct investigations in terms of people, activities, and their settings, including, but not limited to using appropriate methods for determining people's wants, needs, and patterns of behavior, and developing design responses that respect the social and cultural differences among users of design in local and global contexts.
•Understanding of design at different scales, ranging from components to systems and from artifacts to experiences.
•Ability to exercise critical judgment about the student's own design and the design of others with regard to usefulness, usability, desirability, technological feasibility, economic viability, and sustainability in terms of long-term consequences.
D. Acquisition of collaborative skills and the ability to work effectively in interdisciplinary or multidisciplinary teams to solve complex problems.
E. Understanding of and the ability to use technology, including but not limited to:
•Functional understanding of how to continue learning technology, recognizing that technological change is constant.
•Ability to conduct critical evaluations of different technologies in specific design problem contexts, including the placement of technical issues in the service of human-centered priorities and matching relationships between technologies and the people expected to use them.
•Functional capability to shape and create technological tools and systems to address communication problems and further communication goals.
•Ability to recognize and analyze the social, cultural, and economic implications of technology on message creation and production and on human behavior, and to incorporate results into design decisions.
F. Understanding of and ability to use basic

research and analysis procedures and skills, including but not limited to:
•Acquisition of research capabilities and skills such as using databases, asking questions, observing users, and developing prototypes.
•Ability to use analytical tools to construct appropriate visual representations in the execution of research activities.
•Ability to interpret research findings practically and apply them in design development.
•Ability to support design decisions with quantitative and qualitative research findings at various stages of project development and presentation.
G. Functional knowledge of professional design practices and processes, including but not limited to professional and ethical behaviors and intellectual property issues such as patents, trademarks, and copyrights.
H. Experience in applying design knowledge and skills beyond the classroom is essential. Opportunities for field research and experience, internships, collaborative programs with professional and industry groups, and international experiences are strongly recommended. Such opportunities to become oriented to the working profession should be supported through strong advising.

**Program Delivery Mode**
Land plus: face-to-face where some online courses may be available or required

**Designated Writing Intensive Course for Major**
Choose one of the following courses: (check course prerequisites before choosing – all must be met) COMM 301 Business & Professional Comm (3) ENGL 387 Technical Report Writing (3) PMGT 385 Process Leadership (3) ENGL 388 Creative Writing (3)

**Core Requirements (40 credits)**
Foundation Core (24 credits)

ART 101 Foundation Drawing I (4)
ART 125 Foundation Design (4)
GID 210 Introduction to Graphic Design (4)
GID 230 Introduction to Digital Design (4)
GID 250 Introduction to Interactive Media (4)
PHO 201 Introduction to Film Based Photography (4) –***or***– PHO 202 Basic Digital Imaging (4)

Upper-Level Core (16 credits)
GID 310 Typography (4)
GID 312 Visual Systems & Brand Identity (4)
GID 330 Intermediate Digital Design (4)
GID 350 Intermediate Interactive Media (4)

**Related Requirements (14 credits)**
ART 233 Global Art History I (LASC 8) (3)
ART 234 Global Art History II (LASC 8) (3)
FILM 275 Film Appreciation (LASC 6) (4)
FILM 285 History of Motion Pictures (LASC 8) (4)

**Program Requirements**
Graphic & Interactive Design Degree Requirements:

- Minimum GPA of 3.0 in major requirements.
- Grade of "C-" or better must be earned in order for any program course requirement (including transfer courses) to count towards the major.
- *GID Portfolio Review after completing Core GID courses.
- **Must declare and complete at least one GID emphasis.

**Students who declare a GID major must satisfy 1-2 before completing GID Portfolio Review. After passing the Portfolio Review, students MUST declare an emphasis of either Digital Design & Production, Graphic Design, or Interactive Media.*

***If declaring more than one GID emphasis, the GID 492 courses must be repeated for each emphasis. Also, the same courses may not be used in multiple emphasis. For example, any required course in one emphasis may not count as an elective in another emphasis, or any elective course in one emphasis may not count as an elective in another emphasis.*

**Graphic & Interactive Design Graduation Requirements:**

To graduate with a degree in Graphic & Interactive Design, students must complete ***all courses in the major with a "C-" or above*** (which includes core, emphasis, and related requirement courses) and have a ***major GPA of at least 3.0***.

**FILM and GID Computer and Software Requirements:**

The FILM and GID programs have a laptop recommendation. While computer labs are available to you, we want you to have a computer powerful enough for at home use. Current equipment specifications as well as any purchase options will be discussed during the first semester of enrollment. Educational pricing for hardware purchases can be made at https://www.apple.com/us-hed/shop/back-to-school. Software resources are referenced below.

**LAPTOP**

Our recommendation is a **MacBook Pro**. A 13" model customized with 16GB of RAM will suffice for your curriculum, however the 14" and 16" models have larger screens, better CPU processing and graphic power, and an HDMI out built in. The 14" and 16" models can accommodate more than 16GB of RAM as well whereas the 13" inch maximum is 16GB.

You will need a USB-C to USB adapter as well. USB-C hubs featuring ethernet, HDMI out (if 13" model), and passthrough charging are also available online (less expensive than Apple).

**SOFTWARE:**

- Microsoft Office - available for student rates and to download at https://www2.mnstate.edu/it/office365/
- An Adobe CC license will be provided to all SoMAD majors (ANIM, FILM, GID).
- If Film majors are interested in working with Final Cut Pro, it is available in our campus Mac labs, and licensing can be purchased for your personal computer at the following site:
    - https://www.apple.com/us-edu/shop/product/BMGE2Z/A/pro-apps-bundle-for-education

**TABLET (GID-only)**

Additionally, if you are interested in pursuing an iPad for more digital design and illustration and the use of Adobe CC mobile applications, we suggest a range of offerings. The lowest cost being the iPad and pencil, to the higher cost iPad Pro and Apple Pencil (ideal for advanced Augmented Reality tasks).

**Digital Design & Production Emphasis (31 credits)**

Program Requirements (23 credits)
COMM 283 Advertising & PR Principles (3) –***or***–
ANIM 366 2D Animation & Motion Graphics (4)
GID 430 Advanced Digital Design (4)
GID 434 Digital Prepress & Production (4)
GID 438 Digital Design & Production Studio (4)
*GID 492A Capstone Research: DDP & IM (4)
*GID 492B Capstone Project: DDP & IM (4)

**NOTE: GID 492A & GID 492B project must have a Digital Design & Production focus.*

Restricted Electives (8 credits)
Students must choose elective courses from the following list (all course prerequisites must be met):

GID 314 Experience Design (4)
GID 410 Advanced Typographic Design (4)
GID 390 Topics in GID (1–4)
GID 450 Advanced Interactive Media (4)
GID 454 Immersive Media (4)
GID 458 Interactive Media Studio (4)
GID 469 Internship (1–12)
ANIM 116 Foundations in Animation (4)
ANIM 366 2D Animation and Motion Graphics (4) *(if NOT used in Emphasis Requirements)*
ART 203D Introduction to Printmaking (4)
ART 203L Introduction to Illustration (4)
EIT 161 Intro to Copyright & Trademark Law (3)
EIT 182 Introduction to Audio Recording (2)
EIT 261 Legal & Ethical Issues in Entertainment (3)
FILM 175 Video Production (4)
FILM 372 Editing Techniques (4)
PHO 201 Intro to Film Based Photography –***or***–
PHO 202 Basic Digital Imaging *(whichever course NOT used in Core Requirements)*(4)

**Interactive Media Emphasis (32 credits)**

Program Requirements (24 credits)
ANIM 366 2D Animation and Motion Graphics (4)
GID 450 Advanced Interactive Media (4)
GID 454 Immersive Media (4)
GID 458 Interactive Media Studio (4)
*GID 492A Capstone Research: DDP & IM (4)
*GID 492B Capstone Project: DDP & IM (4)

**NOTE: GID 492A & GID 492B project must have an Interactive Media focus.*

Restricted Electives (8 credits)
Students must choose elective courses from the following list (all course prerequisites must be met):

GID 314 Experience Design (4)
GID 410 Advanced Typographic Design (4)
GID 390 Topics in GID (1–4)
GID 430 Advanced Digital Design (4)
GID 434 Digital Prepress & Production (4)
GID 438 Digital Design & Production Studio (4)
GID 469 Internship (1–12)
ANIM 116 Foundations in Animation (4)
ANIM 216 3D Modeling (4)
CSIS 152 Intro to Computers & Programming I-a (3)
CSIS 153 Intro to Computers & Programming I-b (3)
EIT 161 Intro to Copyright & Trademark Law (3)
EIT 182 Introduction to Audio Recording (2)
EIT 383 Sound for Film & Video (3)
FILM 175 Video Production (4)
FILM 372 Editing Techniques (4)
PHO 201 Intro to Film Based Photography –***or***–
PHO 202 Basic Digital Imaging *(whichever course NOT used in Core Requirements)*(4)

**Graphic Design Emphasis (32 credits)**

Program Requirements (24 credits)
GID 314 Experience Design (4)
GID 410 Advanced Typographic Design (4)
GID 430 Advanced Digital Design (4)
GID 469 Internship (4)
*GID 492C Capstone Research: GD (4)
*GID 492D Capstone Project: GD (4)

**NOTE: GID 492C & GID 492D project must have a Graphic Design focus.*

Restricted Electives (8 credits)
Students must choose elective courses from the following list (all course prerequisites must be met):

GID 390 Topics in GID (1–4)
GID 434 Digital Prepress & Production (4)
GID 438 Digital Design & Production Studio (4)
GID 450 Advanced Interactive Media (4)
GID 454 Immersive Media (4)
GID 458 Interactive Media Studio (4)
ANIM 116 Foundations in Animation (4)
ANIM 366 2D Animation and Motion Graphics (4)
ART 203C Introduction to Painting (4)
ART 203E Introduction to Sculpture (4)
ART 203L Introduction to Illustration (4)
ART 233M Global Art History I: Methods (1)
ART 234M Global Art History II: Methods (1)
EIT 161 Intro to Copyright & Trademark Law (3)
EIT 182 Introduction to Audio Recording (2)
FILM 175 Video Production (4)
PHO 201 Intro to Film Based Photography –***or***–
PHO 202 Basic Digital Imaging *(whichever course NOT used in Core Requirements)*(4)

## Minor in Film Studies

21 credits

**Core Requirements (13 credits)**
FILM 275 Film Appreciation (4)
FILM 285 History of Motion Pictures (4)
FILM 302 Practicum (1)
FILM 365 International Cinemas (4)

**Restricted Electives (8 credits)**
Restricted Theory Electives - 4 credits from list
FILM 371 History of LGBT Representation in Film (4)
FILM 383 Adaptations to Film (4)
FILM 386 Film and Media Arts Genres (4)
FILM 387 Authorship in Film & Media Arts (4)
FILM 388 Research Methods in Film & Media Arts (4)
FILM 460 Curating and Programming Media Arts (4)

**Other Restricted Electives - 4 credit FILM course**

## Minor in Film Production

20 credits

**Core Requirements (16 credits)**

FILM 175 Video Production (4)
FILM 265 16mm Production (4)
FILM 275 Film Appreciation (4)
FILM 384 Techniques of Film Directing (4)

**Restricted Electives (4 credits)**

One additional 4 credit FILM rubric course.

## Minor in Graphic & Interactive Design

The minor in Graphic & Interactive Design introduces students to the development and use of visual communications systems and technology in professional practices.

**Core Requirements (16 credits)**

Complete all of the following courses (12 credits):
GID 210 Introduction to Graphic Design (4)
GID 230 Introduction to Digital Design (4)
GID 250 Introduction to Interactive Media (4)

Choose one of the following courses (4 credits):
GID 310 Typography (4)
GID 330 Intermediate Digital Design (4)
GID 350 Intermediate Interactive Media (4)

**Restricted Electives (8 credits)**

Students must choose elective courses from the following list (all course prerequisites must be met). The 469, 497, and all 492 courses are excluded from these electives and cannot be used in a GID minor. Courses cannot be counted towards both the core requirements and the restricted electives.

GID 312 Visual Systems & Brand Identity (4)
GID 314 Experience Design (4)
GID 410 Advanced Typographic Design (4)
GID 430 Advanced Digital Design (4)
GID 434 Digital Prepress & Production (4)
GID 438 Digital Design & Production Studio (4)
GID 450 Advanced Interactive Media (4)
GID 454 Immersive Media (4)
GID 458 Interactive Media Studio (4)

**The following courses can be used as electives if not already used as part of the core requirements:**

GID 310 Typography (4)
GID 330 Intermediate Digital Design (4)
GID 350 Intermediate Interactive Media (4)

## Minor in Media Arts

Media Arts offers creative expression through the study of animation, film, video, photography, graphic arts, audio, and interactive multimedia. Within the Media Arts, students work with space, time, motion, light, color, and sound to express their ideas. Students learn a collaborative and interdisciplinary approach to contemporary arts, digital production, and emerging media technologies, within the context of the theory and practice. Students explore a range of media arts tools, technologies, and applications, as a means to enable expansive experimentation and innovative creative research.

**Core Requirements (20 credits)**

Students must maintain a GPA of 3.0 in all Media Arts coursework.

ANIM 116 Foundations in Animation (4)
EIT 182 Intro to Audio Recording (2)
FILM 175 Video Production (4)
GID 230 Introduction to Digital Design (4) **OR**
GID 250 Introduction to Interactive Media (4)
THTR 255 Stagecraft (3)
PHO 201 Intro to Film Based Photography (4) **OR**
PHO 202 Basic Digital Imaging (4)

**Restricted Electives (3 credits)**

ANIM 216 3D Modeling (4)
EIT 261 Legal & Ethical Issues in Entertainment (3)
EIT 281 Studio & Live Productions (3)
FILM 180 Understanding Movies (3)
FILM 265 16mm Production (4)
FILM 275 Film Appreciation (4)
FILM 290 Topics in Film (1-3)
FILM 390 Topics in Film (1-3)
GID 330 Intermediate Digital Design (4)
GID 350 Intermediate Interactive Media (4)
GID 210 Introduction to Graphic Design (4)
GID 310 Typography (4)
THTR 234 Theatrical Design Principles (3)

## School of Performing Arts

**Roland Dille Center for the Arts 102, (218) 477-2101**
**Chair:** Kenyon Williams
**Faculty:** Laurie Blunsom, Benjamin Druffel, Jenny Dufault, Craig Ellingson, Michael Johnson, Kathryn Link, Amy Mercer, Tom Strait, Kenyon Williams

The **Bachelor of Arts in Music** is designed for the student who seeks a general focus on music within a broadly based liberal arts framework. It is a flexible degree allowing a variety of interest concentrations. It is sometimes combined with a major in another area such as English, History, or Psychology.

The **Bachelor of Science in Commercial Music** covers its content area through performance, composition and theoretical study as well as related areas such as music business and technology.

The **Bachelor of Science in Music Education** is designed for the student who will pursue a career in public school teaching. Students specialize in vocal or instrumental music education.

**New Students**
Students entering a major program in music should show a strong sensitivity to music and have a desire to communicate it to others. Entering students are assumed to have acquired basic music reading ability and performance experience in school groups and/or as soloists. Those lacking such background may have to complete additional preparation, which may extend the time for program completion and graduation.

**Transfer Students**
Students transferring from music programs in other institutions will be evaluated upon entrance for advanced placement in their chosen degree program.

**PERFORMANCE AND PROFICIENCY REQUIREMENTS**
**Primary Performance Medium**
All music major programs require students to choose a primary performance medium. The number of required credits of performance study with this medium and the level of proficiency to attain varies with each program. All music majors will be enrolled in lessons on their instrument/voice every semester they are in residence with the following exceptions:

- Music Education majors must complete their recital requirement before student teaching.
- All students must enroll for lessons in the semester they do a recital even if all lesson requirements have been met.

**Piano Requirements**
All major programs have a requirement for piano study. The number of required credits and level of proficiency to attain varies with each program. Upon entry to the music program, students are evaluated and placed in a piano course appropriate to their skill level. Credits for Class Piano I and II (MUS 150A and MUS 150B) do not count as piano performance study. Credits for Class Piano III and IV (MUS 150C and MUS 150D and MUS 151) are counted toward piano performance requirements.

**Piano Proficiency**
All Bachelor of Science in Music Education students are required to pass a piano proficiency examination demonstrating prescribed keyboard skills. These examinations are offered at the end of each semester. Students usually take the exam after two years of piano performance study. Bachelor of Science in Commercial Music majors must pass MUS 151 (Basic Commercial Keyboard) in fulfillment of the piano proficient requirements. Bachelor of Arts majors must pass a piano proficiency exam if piano is their primary instrument. Students should see the Piano Proficiency Handbook for more information on piano proficiency requirements.

**Guitar Proficiency**
All Music Education majors are required to pass a proficiency exam demonstrating basic guitar techniques. Successful completion of the course MUS 117, Guitar for Non-Majors, will satisfy the proficiency. Students with prior guitar experience

may wish to be tested individually and be exempt from the class requirement.

**Upper-Level Performance Study**
Performance and composition study areas indicate levels of proficiency through the course numbers. The 100 and 200 levels are lower-division courses; the 300 and 400 levels are upper-division courses and indicate advanced skills and knowledge of repertoire. The course levels do not necessarily correspond with the year of enrollment. The Performance Study instructors have guidelines suggesting appropriate literature and skills for each level.

Advancement to the upper-division level is required for students in the Bachelor of Science in Music - Performance emphasis and Music Education programs and must be attained prior to presenting any recital required by the program. Enrollment in upper-division levels is allowed after a jury evaluation and recommendation. These evaluations take place at specified times each semester. Performance majors usually apply for upper-division level after fall semester of the sophomore year. Music Education majors normally apply after spring semester of the sophomore year. The jury may deny advancement to upper-division level and recommend further study after which the student may reapply for upper-division status.

**Recitals**
Bachelor of Science Music Education majors are required to present a half recital in their primary performance area normally given during the student's senior year. Bachelor of Arts in Music Performance are required to present a full recital, normally given during the student's senior year. All recitals are prepared with the help of the applied instructor. Procedures for presenting recitals are available in the Music Department Office.

**Differential Tuition**
Differential tuition is charged for all music courses, except for Liberal Arts and Sciences Curriculum courses. This is in addition to the normal tuition fee.

**Ensemble Participation**
It is assumed that all music majors will participate in an ensemble every semester until all the requirements for their music program have been completed.

**Grade Policy**
Students must earn a grade of "C-" or better in any course which is a part of the required curriculum for their major program including the related requirements that are not music courses.

**Concert Attendance Requirement**
All full-time music majors are required to attend a certain number of concerts, recitals, and departmental events per semester.

## BS Degree in Commercial Music

A degree designed to prepare individuals for careers in the commercial/jazz/popular music industries as performers and composers/arrangers while also developing skills in the areas of live/recorded sound and music business/law.
To receive the B.S. Degree in Commercial Music, the student must meet the minimum university requirements and specific requirements for the program. Completion of 120 credits is required for this degree which includes the Liberal Arts and Sciences Curriculum.

Student Learning Outcomes

- Demonstrate a sufficient level of technique in their primary performance medium to artistically perform standard undergraduate level repertoire.
- Understand the common elements and organizational patterns in music to demonstrate knowledge of forms, processes, structure, context, and styles including diverse cultural sources, from historical and theoretical perspectives.
- Show competency in secondary performing areas including commercial/jazz arranging, commercial/jazz improvisation, piano and conducting.
- Complete a capstone project showing all of these skills. This project will, in the

majority of cases, involve the creation of a studio recording of their work as performers/arrangers that they will also produce.

**Program Delivery Mode**
Land plus: face-to-face where some online courses may be available or required

**Designated Writing Intensive Course for Major**
MUS 304 - History of Western Music Since 1750

**Core Requirements (56 credits)**
MUS 107A Music Theory I (3)
MUS 107B Aural Skills I (1)
MUS 108A Music Theory II (3)
MUS 108B Aural Skills II (1)
MUS 207A Music Theory III (3)
MUS 207B Aural Skills III (1)
MUS 208 Theory & Ear Training IV (2)
MUS 300 Basic Conducting (2)
MUS 303 History of Western Music to 1750 (3)
MUS 304 History of Western Music since 1750 (3)
MUS 316 World Music Survey (3)
MUS 374 Instrumental/Choral Arranging (2)

MUS 150C Class Piano III (1)
MUS 151 Commercial Keyboard (1)
MUS 287 Commercial/Jazz Improvisation and Theory I (2)
MUS 372 Commercial/Jazz Arranging I (2)
MUS 387 Commercial/Jazz Improvisation and Theory II (2)
MUS 472 Commercial/Jazz Arranging II (2)
MUS 487 Commercial/Jazz Improvisation and Theory III (2)
MUS 492 Capstone Project (1)

8 credits of Applied Lessons on Primary Instrument. At least 2 credits of study is to be at the 300 level.

8 credits of Ensembles: (8)
MUS 320* or MUS 330* Ensemble

**Related Requirements (12 credits)**
Twelve (12) credits of coursework from the Entertainment Industries and Technology curriculum to be decided upon in ongoing consultation with EIT faculty.

**Restricted Electives (3 credits)**
Choose one of the following courses:
MUS 215 History of Jazz (3)
MUS 217 Pop/Rock Music for Non-Majors (3)
MUS 240 American Music (3)

**Electives (13 credits)**
Electives will be chosen in close consultation with the advisor and are to be classes from any rubric in accordance with the prerequisites in place. Electives can be from EIT, BUS, FILM, ENTR, and COMM.

Up to four (4) credits of music (MUS rubric) coursework may be allowed as elective credit. Additional ensemble credit cannot be counted toward those four credits, only additional classes and lessons.

## BA Degree in Music

To receive the B.A. Degree in Music, the student must meet the minimum university requirements and specific requirements for the program. Completion of 120 credits is required for this degree which includes the Liberal Arts and Sciences Curriculum.

Student Learning Outcomes

- Demonstrate a sufficient level of technique in their primary performance medium to artistically perform standard undergraduate level repertoire.
- Understand the common elements and organizational patterns in music to demonstrate knowledge of forms, processes, structure, context, and styles including diverse cultural sources, from historical and theoretical perspectives.
- Show competency in secondary performing areas including piano and conducting.
- Complete a capstone writing project in music or Senior Performance Recital.

**Program Delivery Mode**
Land plus: face-to-face where some online courses may be available or required

**Designated Writing Intensive Course for Major**
MUS 304 - History of Western Music Since 1750

**Core Requirements (27 credits)**
Students must declare an emphasis for this program. Students must earn at least a C- or higher in all core courses.

MUS 107A Music Theory I (3)
MUS 107B Aural Skills I (1)
MUS 108A Music Theory II (3)
MUS 108B Aural Skills II (1)
MUS 207A Music Theory III (3)
MUS 207B Aural Skills III (1)
MUS 208 Music Theory IV (2)
MUS 300 Basic Conducting (2)
MUS 303 History of Western Music to 1750 (3)
MUS 304 History of Western Music since 1750 (3)
MUS 316 World Music Survey (3)
MUS 374 Instrumental/Choral Arranging (2)

**Related Requirements (26 credits)**
Students must earn at least 26 credits in courses in addition to the requirements of the MSUM Liberal Arts and Sciences Curriculum and the previously listed BA requirements and electives. Acceptable courses are those with a liberal arts focus, and/or extra LASC courses. Courses with the MUS rubric may not be used to complete this requirement.

**General Music Emphasis (25 credits)**

- Performance study on primary instrument: 8 credits, with 4 credits at the 200 level or above.
- Ensemble performance: 8 credits
- Piano Study: 2 credits of applied piano performance or Class piano III and IV
- MUS 492 Senior Thesis (1)
- A piano proficiency exam is required for students studying piano as their primary instrument.
- Students must earn a C- or higher in all courses.

Restricted Electives (6 credits)
Students must complete 6 credits from the list below:

MUS 240 American Music (3)
MUS 215 History of Jazz (3)
MUS 217 Pop/Rock Music (3)
MUS 345 Women in Musical Culture (3)
MUS 346 Sex, Sexuality and Music (3)
EIT 261 Legal and Ethical Issues in Music (3)

**Music Performance Emphasis (25 credits)**

- Performance study on primary instrument: 12 credits, with at least 4 credits at the 300 level or higher
- Ensemble related to primary instrument: 8 credits
- Piano (if not primary instrument): 4 credits of piano performance, which may include Class Piano III and IV.
- If piano is the primary instrument: 4 credits of applied study on a secondary instrument
- MUS 450: Senior Recital (1)
- A piano proficiency exam is required for students studying piano as their primary instrument.
- Students must earn a C- or higher in courses.

## BS Degree in Music Education

The Bachelor of Science in Music Education (emphasis in instrumental education or emphasis in vocal education) prepares students for Minnesota licensure in K-12 Music Education – Instrumental or K-12 Music Education - Vocal. Students interested in obtaining licensure to teach K-12 Music Education must be admitted to the Teacher Education program and satisfy all Selective Admission and Retention in Teacher Education (SARTE) requirements, which are listed at https://www.mnstate.edu/education/sarte.aspx. Admission to the MSUM Teacher Education program ensures that candidates meet specific requirements to enable Minnesota Teacher License application at graduation. The Teacher Education requirements for licensure include professional education courses that are in addition to the specific music program requirements for the BS in Music Education. Completion of 128 credits and a 2.5 GPA is required for this degree which includes

the Liberal Arts and Sciences Curriculum and K-12 Teaching Licensure Education requirements.

Student Learning Outcomes

- Demonstrate a sufficient level of technique in their primary performance medium to artistically perform standard undergraduate level repertoire.
- Understand the common elements and organizational patterns in music to demonstrate knowledge of forms, processes, structure, context, and styles including diverse cultural sources, from historical and theoretical perspectives.
- Show competency in secondary performing areas including piano and conducting.
- Complete a capstone writing project in music and Senior Performance Recital.
- Demonstrate the ability to teach in a school music classroom.

**Program Delivery Mode**
Land plus: face-to-face where some online courses may be available or required

**Designated Writing Intensive Course for Major**
MUS 304 History of Western Music since 1750 (3)

**Core Requirements (60 credits)**
Students must select an emphasis in either Instrumental Music Education or Vocal Music Education. Students must earn at least a C- or higher in all core courses.

MUS 107A Music Theory I (3)
MUS 107B Aural Skills I (1)
MUS 108A Music Theory II (3)
MUS 108B Aural Skills II (1)
MUS 207A Music Theory III (3)
MUS 207B Aural Skills III (1)
MUS 208 Music Theory IV (2)
MUS 300 Basic Conducting (2)
MUS 303 History of Western Music to 1750 (3)
MUS 304 History of Western Music since 1750 (3)
MUS 316 World Music Survey (3)
MUS 374 Instrumental/Choral Arranging (2)
**Total: 27 credits**

Secondary Education Licensure Requirements
Students must earn at least a C- or higher in all licensure coursework.

COMM 100 Speech Communication (3)
ED 205 Introduction to Education (3)
ED 294 Educational Psychology (3)
ED 310 Social Foundations of Education (3)
ED 498 The Professional Teacher in the Classroom (3)
ED 448 Reading Study Skills in the Content Areas (3)
ED 461S Student Teaching: Secondary (12) **or**
ED 460S Student Teaching: Secondary (6) **and**
EECE 480E Student Teaching: Elementary (6) **or**
ED 461V Student Teaching: Secondary/K-12 (12)
SPED 413 Teaching in Inclusive Environments (3)
**Total: 33 credits**

Teacher licensure requirements must be met in order to receive a secondary teaching license in the state of Minnesota. The MN Professional Educator Licensing and Standards Board information can be found HERE.

Information on MSUM Teacher Licensure can be found HERE.

**Instrumental Music Emphasis (42 credits)**
Students in this major must pass piano and guitar proficiency exams and present a recital.

A student teaching qualifying exam, taken the semester prior to application to student teaching, must be passed before a student teaching assignment is arranged. Due to the student teaching internship and state-mandated licensure components for this degree, there are more credits required than the 120 ordinarily needed for a Bachelor's of Science degree. Usually students will need one semester beyond four years or enrollment in one or more summer sessions to complete this degree.

In addition to the courses listed below, students must earn:

Twelve (12) credits of performance study on the principal instrument, 2 of which must be at the 300 level or above

Two (2) credits of piano performance study which may include Class Piano III and/or IV

Seven (7) credits of instrumental ensemble, 2 credits minimum for large ensembles and 2 credits minimum for small ensembles

Students must also participate in at least one semester of a choral ensemble.

MUS 117 Guitar for Non-Majors (1)
MUS 152 Class Voice (1)
MUS 231 Methods for Teaching Woodwinds I (1)
MUS 232 Methods for Teaching Woodwinds II (1)
MUS 233 Methods for Teaching Brass Instruments (1)
MUS 234 Methods for Teaching String Instruments (1)
MUS 235 Methods for Teaching Percussion (1)
MUS 240 American Music (3)
MUS 333 Teaching General Music K-12 (3)
MUS 335 Secondary School Instrumental Methods and Literature (3)
MUS 378 Advanced Conducting (3)
MUS 450 Student Recital (1)

**Vocal Music Emphasis (42 credits)**
Students in this major must pass piano and guitar proficiency exams and present a recital.

A student teaching qualifying exam, taken the semester prior to application to student teaching, must be passed before a student teaching assignment is arranged. Due to the student teaching internship and state-mandated licensure components for this degree, there are more credits required than the 128 ordinarily needed for a Bachelor's of Science degree. Usually students will need one semester beyond four years or enrollment in one or more summer sessions to complete this degree.

In addition to the courses listed below, students must earn:

Twelve (12) credits of voice performance study, 2 of which must be at the 300 level or above

Four (4) credits of piano performance study which may include Class Piano III and/or IV

Seven (7) credits of vocal ensemble.

Students must enroll for one credit of vocal performance study each semester that they have full-time status, and register for two credits during the semester that they perform their recital. Students must participate in a vocal ensemble each semester that they have full-time status, with the exception of the semester in which they do their student teaching.

MUS 191 Diction (2)
MUS 117 Guitar for Non-Majors (1)
MUS 240 American Music (3)
MUS 333 Teaching General Music K-12 (3)
MUS 334 Secondary School Choral Methods and Literature (3)
MUS 378 Advanced Conducting (3)
MUS 432 Voice Pedagogy (3)
MUS 450 Student Recital (1)

## Minor in Commercial Music

21-23 credits

A program designed for focused study in the areas of performing, composing, and arranging music in commercial and jazz styles.

Core Requirements (17 credits)
MUS 107A Music Theory I (3)
MUS 287 Commercial/Jazz Improvisation and Theory I (2)
MUS 387 Commercial/Jazz Improvisation and Theory II (2)
MUS 372 Commercial/Jazz Arranging (2)
MUS 15* or 25* Private Lessons (4) (at least 2 credits must be at 200 level)
MUS 320* or MUS 330* Ensemble (4) (must repeat 4 times for 4 total credits)

**Restricted Electives (4-6 credits)**
Two courses to be chosen from:
MUS 215 History of Jazz (3)
MUS 217 Pop/Rock Music for Non-Majors (3)
MUS 240 American Music (3)
MUS 472 Commercial/Jazz Arranging II (2)
MUS 487 Commercial/Jazz Improvisation and Theory III (2)

## Minor in Music

25 credits

In addition to the courses listed, students must earn four credits of ensemble and four credits of performance study, one of which must be at the 200 level or above. At least one credit of performance study, one credit of ensemble, and two credits from the required or elective credits listed below (or an approved substitute) must be taken at MSUM. Students studying piano at the 200 level must pass a piano proficiency exam.

**Core Requirements (17 credits)**

MUS 107A Music Theory I (3)
MUS 111 The Art of Listening (3)
MUS 240 American Music (3)

**Restricted Electives (8 credits)**

Students must complete one of the courses listed. The remaining five credits can be chosen from any course with a MUS rubric.

MUS 215 History of Jazz (3)
MUS 217 Pop/Rock Music for Non-Majors (3)
MUS 316 World Music Survey (3)

## Certificate in Instrumental Music Education

14 credits

The Certificate in Instrumental Music Education is designed for Music Education students pursuing the BS in Vocal Music Education. The program allows students to receive additional training in Instrumental music and prepare for careers that require training in both vocal and instrumental music. This certificate does not lead to teaching licensure in instrumental music education.

MUS 231 Methods for Teaching Woodwinds I (1)
MUS 232 Methods for Teaching Woodwinds II (1)
MUS 233 Methods for Teaching Brass Instruments (1)
MUS 234 Methods for Teaching String Instruments (1)
MUS 235 Methods for Teaching Percussion (1)
MUS 335 Secondary School Instrumental Methods and Literature (3)
MUS 15x-454x: Instrumental Lessons (1) – Must take 3 times
MUS 320G or MUS 330G Wind Ensemble (1) – Must take 3 times

## Certificate in Jazz

9 credits

The Certificate in Jazz is designed for Music Education students preparing for careers in teaching. The program allows students to receive additional training in Jazz, to enhance their music education training, and prepare more comprehensively for duties often required in secondary school teaching.

MUS 151 Basic Commercial Keyboard (1)
MUS 287 Commercial/Jazz Improvisation & Theory I (2)
MUS 387 Commercial/Jazz Improvisation & Theory II (2)
MUS 372 Commercial/Jazz Arranging (2)
MUS 320I/MUS 330I or MUS 320J/MUS 330J Jazz Ensemble or Jazz Combo (1) *MUST BE TAKEN TWICE

## Certificate in Music Technology

14 credits

The Certificate in Music Technology is designed for Music Education students preparing for careers in teaching. The program allows students to receive additional training in music technology, to enhance their music education training, and prepare for integrating music technology into music curricula in K12 music programs.

EIT 161 Intro to Copyright and Trademark Law (3)
EIT 181 Audio Technology Theory (3)
EIT 281 Studio and Live Productions (3)
EIT 382 Live Sound Reinforcement/Recording (3)
EIT 361 Entertainment Activity (1) – Must be taken twice

## Certificate in Vocal Music Education

14 credits

The Certificate in Vocal Music Education is designed for Music Education students pursuing the BS in Instrumental Music Education. The

program allows students to receive additional training in vocal music and prepare for careers that require training in both vocal and instrumental music. This certificate does not lead to teaching licensure in vocal music education.

MUS 334 Secondary School Choral Methods and Literature (3)
MUS 191 Diction (2)
MUS 432 Voice Pedagogy (3)
MUS 154-454: Voice Lessons (1) – Must take 3 times
MUS 320A/MUS 330A or MUS 320B/MUS 330B Concert Choir, Men's Choir or Women's Choir (1) – Must take 3 times

# *College of Business, Analytics & Communication*

*The MSU Moorhead College of Business, Analytics & Communication, building on a strong foundation of liberal studies, provides professional career and leadership preparation through student-centered learning that incorporates technology, experiential learning, and interaction with industry and community.*

*The MSUM College of Business, Analytics & Communication students are provided with a solid academic foundation that prepares graduates to advance professionally and personally. They enter high-demand professions with the skills and knowledge necessary to succeed. Students engage with faculty and the community by conducting research, producing award-winning programs and documentaries, participating in competitions, and taking part in service projects.*

## Computer Science & Information Systems

**Bridges Hall 160, (218) 477-2299**
**Chair:** Ellen Fagerstrom
**Faculty:** Andrew Chen, Hanku Lee, Adaeze Nwaigwe

The Computer Science and Information Systems Department (CSIS) offers majors and minors in four areas: Computer Science, Computer Information Systems, Computer Information Technology, and Cybersecurity. Programs of study in Computer Science are intended for students planning to work in the high technology computer industry or pursue graduate work in computer science. Programs of study in Computer Information Systems are intended for students planning to work in applied areas that utilize computers as application tools. Programs of study in Computer Information Technology are intended for students interested in working on setting up the computing infrastructure of an organization, including network and system administration. Programs of study in Cybersecurity are intended for students interested in applied areas of secure software development or in pursuing graduate work in information security and assurance.

## BS Degree in Computer Information Systems

The BS Degree in Computer Information Systems from MSUM will allow a student to be able to competently develop computer software and possess competitive and comprehensive discipline-specific content knowledge. Students will be able to solve problems, communicate, to technical and non-technical audiences, about computers and computation through writing and speech. To receive the B.S. Degree in Computer Information Systems, the student must meet the minimum university requirements and specific requirements for the program. Completion of 120 credits is required for this degree which includes the Liberal Arts and Sciences Curriculum.

**Program Delivery Mode**
Land plus: face-to-face where some online courses may be available or required

**Designated Writing Intensive Course for Major**
ENGL 387 Technical Report Writing (3) or CSIS 316 Ethics in the Information Age (3) or PMGT 385 Process Leadership (3)

Student Learning Outcomes

- Students will be able to competently develop computer software.
- Students will be able to communicate, to technical and non-technical audiences, about computers and computation through writing and speech.
- Students will possess competitive and comprehensive discipline-specific content knowledge.
- Students will be able to solve problems in their careers.

**Core Requirements (31 credits)**
CSIS 145 Introduction to Information Systems (1)
CSIS 241 Introduction to Web Design and Development (3)
CSIS 152 Introduction to Computers and Programming I-a (3)
CSIS 153 Introduction to Computers and Programming I-b (3)
CSIS 304 Databases (3)
CSIS 336 C#.Net Programming (3)
CSIS 340 Software Engineering (3)
CSIS 349 Networks and Data Communications (3)
CSIS 405 E-Commerce Technology (3)
CSIS 433 Design, Implementation and Support of Information Systems (3)
CSIS 446 Intelligent and Predictive Systems (3)

**Program Requirements**
A student must complete an Experiential Learning Component before graduation. This learning component will be automatically met by taking either CSIS 469 or CSIS 492. Other ways to complete it include:

- Participation in Academic Competitions (example: programming contest)
- Participation in the Student Academic Conference (poster or presentation)
- Faculty/Student Research Projects
- Study Abroad
- Military Service with CSIS related experience

- Employment related to the student's major
- Job Shadowing
- Community volunteer work related to the student's major (example: through ACM)

**Related Requirements (33 credits)**
ACCT 231 Principles of Accounting II (3)
ACCT 230 Principles of Accounting I (3)
COMM 100 Speech Communication (3)
ENGL 387 Technical Report Writing (3) **or**
CSIS 316 Ethics in the Information Age (3) **or**
PMGT 385 Process Leadership (3)
FINC 340 Financial Management (3)
MATH 210 Concepts from Discrete Mathematics (3)
MATH 229 Topics in Calculus (3)
MATH 234 Introduction to Probability and Statistics (3)
MGMT 260 Principles of Management (3)
MGMT 380 Operations Management (3)
MGMT 456 Project Management in Business (3)

**Restricted Electives (12 credits)**
12 credits, with at least 9 elective credits at or above the 300 level.

CSIS 252 Introduction to Computers and Programming II (3)
CSIS 290 Special Topics (1-3, up to 4 applied)
CSIS 311 Server-Side Scripting (3)
CSIS 316 Ethics in the Information Age (3)
CSIS 335 Graphical User Interface Programming (3)
CSIS 341 System and Network Administration (3)
CSIS 352 Advanced Concepts in Programming (3)
CSIS 360 Linux Programming and Development Tools (3)
CSIS 362 Cybersecurity Fundamentals (3)
CSIS 364 Information Systems Security (3)
CSIS 365 Mobile Application Development & Programming (3)
CSIS 349L Networking and Data Communications Lab (1)
CSIS 441 Network Security (3)
CSIS 462 Software Security (3)
CSIS 464 Software Security Analysis (3)
CSIS 469 Internship (up to 3 applied)
CSIS 490 Topics in Computer Science and Information Systems (1-3, up to 3 applied)
CSIS 494 Undergraduate Research (1-3, up to 3 applied)

## BS Degree in Computer Information Technology

Students completing a BS in Computer Information Technology at MSUM will be able to competently design, setup and support computing infrastructures. They will possess competitive and comprehensive discipline-specific knowledge to solve problems in their careers. To receive the B.S. Degree in Computer Information Technology, the student must meet the minimum university requirements and specific requirements for the program. Completion of 120 credits is required for this degree which includes the Liberal Arts and Sciences Curriculum.

Student Learning Outcomes

- Students will be able to design, setup and support computing infrastructures.
- Students will be able to communicate, to technical and non-technical audiences, about computers and computation through writing and speech.
- Students will possess competitive and comprehensive discipline-specific content knowledge.
- Students will be able to solve problems in their careers.

**Program Delivery Mode**
Land plus: face-to-face where some online courses may be available or required

**Designated Writing Intensive Course for Major**
ENGL 387 Technical Report Writing (3) or CSIS 316 Ethics in the Information Age (3) or PMGT 385 Process Leadership (3)

**Core Requirements (36 credits)**
CSIS 103 Computer Concepts and Applications (3)
**or**
CSIS 104 Spreadsheet and Database Applications (3)
CSIS 145 Introduction to Information Systems (1)
CSIS 241 Introduction to Web Design & Development (3)

CSIS 152 Introduction to Computers and Programming I-a (3)
CSIS 153 Introduction to Computers and Programming I-b (3)
CSIS 222 Computer Maintenance (1)
CSIS 304 Databases (3)
CSIS 311 Server-Side Scripting (3)
CSIS 341 System and Network Administration (3)
CSIS 349 Networks and Data Communications (3)
CSIS 349L Networks and Data Communications Lab (1)
CSIS 360 Linux Programming and Development Tools (3)
CSIS 441 Network Security (3)
CSIS 469 Internship (1-12) **or**
CSIS 405 E-Commerce Technology (3) **or**
CSIS 446 Intelligent and Predictive Systems (3)

**Program Requirements**

A student must complete an Experiential Learning Component before graduation. This learning component will be automatically met by taking either CSIS 469 or CSIS 492. Other ways to complete it include:

- Participation in Academic Competitions (example: programming contest)
- Participation in the Student Academic Conference (poster or presentation)
- Faculty/Student Research Projects
- Study Abroad
- Military Service with CSIS related experience
- Employment related to the student's major
- Job Shadowing
- Community volunteer work related to the student's major (example: through ACM)

**Related Requirements (9 credits)**

COMM 100 Speech Communication (3)
ENGL 387 Technical Report Writing (3) **or**
CSIS 316 Ethics in the Information Age (3) **or**
PMGT 385 Process Leadership (3)
MATH 210 Concepts from Discrete Mathematics (3)

**Restricted Electives (12 credits)**

At least 9 elective credits must be at or above the 300 level. At most 3 elective credits can come from CSIS 469.

CSIS 115 Introduction to MacOS X (1)
CSIS 252 Introduction to Computers and Programming II (3)
CSIS 290 Special Topics (1-3)
CSIS 316 Ethics in the Information Age (3)
CSIS 320 Architecture (4)
CSIS 335 Graphical User Interface Programming (3)
CSIS 336 C#.Net Programming (3)
CSIS 340 Software Engineering (3)
CSIS 352 Advanced Concepts in Programming (3)
CSIS 362 Cybersecurity Fundamentals (3)
CSIS 364 Information Systems Security (3)
CSIS 365 Mobile Application Development & Programming (3)
CSIS 405 E-Commerce Technology (3)
CSIS 430 Operating Systems (4)
CSIS 433 Design, Implementation and Support of Information Systems (3)
CSIS 455 Compilers (4)
CSIS 446 Intelligent and Predictive Systems (3)
CSIS 462 Software Security (3)
CSIS 464 Software Security Analysis (3)
CSIS 450 Programming Languages (3)
CSIS 469 Internship (1-12)
CSIS 490 Topics in Computer Science and Information Systems (1-3)
CSIS 492 Senior Seminar (1)
CSIS 494 Undergraduate Research (1-3)

## BS Degree in Computer Science

Students completing a BS in Computer Science at MSUM will be able to competently develop computer software and will be able to communicate, to technical and non-technical audiences, about computers and computation through writing and speech. To receive the B.S. Degree in Computer Science, the student must meet the minimum university requirements and specific requirements for the program. Completion of 120 credits is required for this degree which includes the Liberal Arts and Sciences Curriculum.

Student Learning Outcomes

- Students will be able to competently develop computer software.
- Students will be able to communicate, to technical and non-technical audiences, about computers and computation through writing and speech.
- Students will possess competitive and comprehensive discipline-specific content knowledge.
- Students will be able to solve problems in their careers.

**Program Delivery Mode**
Land plus: face-to-face where some online courses may be available or required

**Designated Writing Intensive Course for Major**
ENGL 387 Technical Report Writing (3) or PMGT 385 Process Leadership (3)

**Core Requirements (44 credits)**
CSIS 152 Introduction to Computers and Programming I-a (3)
CSIS 153 Introduction to Computers and Programming I-b (3)
CSIS 252 Introduction to Computers and Programming II (3)
CSIS 304 Databases (3)
CSIS 316 Ethics in the Information Age (3)
CSIS 320 Architecture (4)
CSIS 340 Software Engineering (3)
CSIS 349 Networks and Data Communications (3)
CSIS 349L Networks and Data Communications Lab (1)
CSIS 352 Advanced Concepts in Programming (3)
CSIS 430 Operating Systems (4)
CSIS 455 Compilers (4)
CSIS 446 Intelligent and Predictive Systems (3)
CSIS 450 Programming Languages (3)
CSIS 492 Senior Seminar (1)

**Program Requirements**
A student must complete an Experiential Learning Component before graduation. This learning component will be automatically met by taking either CSIS 469 or CSIS 492. Other ways to complete it include:

- Participation in Academic Competitions (example: programming contest)
- Participation in the Student Academic Conference (poster or presentation)
- Faculty/Student Research Projects
- Study Abroad
- Military Service with CSIS related experience
- Employment related to the student's major
- Job Shadowing
- Community volunteer work related to the student's major (example: through ACM)

**Related Requirements (20 credits)**
COMM 100 Speech Communication (3)
ENGL 387 Technical Report Writing (3) **or**
PMGT 385 Process Leadership (3)
MATH 261 Calculus I (4) **or**
MATH 229 Topics in Calculus (3)
MATH 210 Concepts from Discrete Mathematics (3)
MATH 234 Introduction to Probability and Statistics (3) **or**
MATH 335 Intermediate Probability and Statistics I (3)
CHEM 150/CHEM 150L General Chemistry I and Lab (4) **or**
PHYS 160 Physics I with Algebra & Lab (4) **or**
PHYS 200 Physics I with Calculus & Lab (4)

**Restricted Electives (12 credits)**
Students must choose twelve elective credits from the listed courses. At least nine of the twelve elective credits must be at or above the 300 level.

CSIS 241 Introduction to Web Design & Development (3)
CSIS 290 Special Topics (1-3)
CSIS 311 Server-Side Scripting (3)
CSIS 335 Graphical User Interface Programming (3)
CSIS 336 C#.Net Programming (3)
CSIS 341 System and Network Administration (3)
CSIS 360 Linux Programming and Development Tools (3)
CSIS 362 Cybersecurity Fundamentals (3)
CSIS 364 Information Systems Security (3)
CSIS 365 Mobile Application Development & Programming
CSIS 405 E-Commerce Technology (3)
CSIS 433 Design, Implementation and Support of

Information Systems (3)
CSIS 441 Network Security (3)
CSIS 462 Software Security (3)
CSIS 464 Software Security Analysis (3)
CSIS 469 Internship (up to 3 applied)
CSIS 490 Topics in Computer Science and Information Systems (1-3)
CSIS 494 Undergraduate Research (1-3)

## BS Degree in Cybersecurity

Students completing a Major in Cybersecurity at MSUM will be able to evaluate the security needs of a system, and competently design and implement secure systems to reduce vulnerabilities and minimize risks. Students will be able to communicate, to technical and non-technical audiences, about cybersecurity issues in Information Systems. To receive a BS in Cybersecurity, the student must meet the minimum university requirements and specific requirements for the program. Completion of 120 credits with a 2.5 GPA is required for this degree which includes the Liberal Arts and Sciences Curriculum.

Student Learning Outcomes

- Students will be able to evaluate the security needs of a system.
- Students will be able to competently design and develop secure systems.
- Students will be able to communicate, to technical and non-technical audiences, about cybersecurity through writing and speech.
- Students will possess competitive and comprehensive content knowledge in cybersecurity.
- Students will be able to solve problems in their careers.

**Program Delivery Mode**
Land plus: face-to-face where some online courses may be available or required

**Designated Writing Intensive Course for Major**
ENGL 387 Technical Report Writing (3) or PMGT 385 Process Leadership (3)

**Core Requirements (46 credits)**
CSIS 152 Introduction to Computers and Programming 1-a (3)
CSIS 153 Introduction to Computers and Programming 1-b (3)
CSIS 252 Introduction to Computers and Programming II (3)
CSIS 304 Databases (3)
CSIS 320 Architecture (4)
CSIS 340 Software Engineering (3)
CSIS 349 Network & Data Communications (3)
CSIS 349L Network & Data Communications Lab (1)
CSIS 352 Advanced Concepts in Programming (3)
CSIS 362 Cybersecurity Fundamentals (3)
CSIS 364 Information Systems Security (3)
CSIS 430 Operating Systems (4)
CSIS 441 Network Security (3)
CSIS 462 Software Security (3)
CSIS 464 Software Security Analysis (3)
CSIS 492 Senior Seminar (1)

**Program Requirements**
Minimum cumulative GPA: 2.50
Grade of C- or better for CSIS 152, CSIS 153, CSIS 252 & MATH 210

While in the Major, students must maintain a minimum GPA of 2.50, both overall and in courses required for the major.
At least one-half of the 300- and 400-level computer science courses in this major program must be taken from the Department of Computer Science at MSUM

A student is required to complete an Experiential Learning Component before graduation. This learning component will be automatically met by taking CSIS 469. Other ways to complete it include:
- Participation in Academic Competitions (example: cybersecurity contest)
- Participation in the Student Academic Conference (poster or presentation)
- Faculty/Student Research Projects
- Study Abroad
- Military Service with cybersecurity related experience
- Employment related to the student's major
- Job Shadowing

- Community volunteer work related to the student's major (example: through ACM)

**Related Requirements (23 credits)**
CSIS 316 Ethics in the Information Age (3)
COMM 100 Speech Communication (3)
CHEM 150/CHEM 150L General Chemistry I and Lab (4) **or**
PHYS 160 Physics I with Algebra & Lab (4) **or**
PHYS 200 Physics I with Calculus & Lab (4)
MATH 261 Calculus I (4) **or**
MATH 229 Topics in Calculus (3)
MATH 210 Concepts from Discrete Mathematics (3)
MATH 234 Introduction to Probability and Statistics (3) **or**
MATH 335 Intermediate Probability and Statistics I (3)
ENGL 387 Technical Report Writing (3) **or**
PMGT 385 Process Leadership (3)

**Restricted Electives (9 credits)**
CSIS 311 Server-Side Scripting (3)
CSIS 335 Graphical User Interface Programming (3)
CSIS 336 C#.Net Programming (3)
CSIS 341 System and Network Administration (3)
CSIS 360 Linux Programming and Development Tools (3)
CSIS 365 Mobile Application Development & Programming
CSIS 434 Modern Software Development (3)
CSIS 450 Programming Languages (3)
CSIS 469 Internship (up to 3 applied)
CSIS 490 Topics in Computer Science and Information Systems (1-3)
CSIS 494 Undergraduate Research (1-3)

## Minor in Computer Information Systems
25 credits

**Core Requirements (16 credits)**
CSIS 145 Introduction to Information Systems (1)
CSIS 241 Introduction to Web Design & Development (3)
CSIS 152 Introduction to Computers and Programming I-a (3)
CSIS 153 Introduction to Computers and Programming I-b (3)
CSIS 304 Databases (3)
CSIS 340 Software Engineering (3)

**Related Requirements (6 credits)**
ACCT 230 Principles of Accounting I (3)
ACCT 231 Principles of Accounting II (3)

**Restricted Electives (3 credits)**
Select one course from this list:

CSIS 252 Introduction to Computers and Programming II (3)
CSIS 349 Networks and Data Communications (3)
CSIS 433 Design, Implementation and Support of Information Systems (3)

## Minor in Computer Information Technology
23 credits

CSIS 103 Computer Concepts and Applications (3) **or**
CSIS 104 Spreadsheet and Database Applications (3)
CSIS 145 Introduction to Information Systems (1)
CSIS 241 Introduction to Web Design & Development (3)
CSIS 152 Introduction to Computers and Programming I-a (3)
CSIS 153 Introduction to Computers and Programming I-b (3)
CSIS 222 Computer Maintenance (1)
CSIS 311 Server-Side Scripting (3)
CSIS 341 System and Network Administration (3)
CSIS 349 Network and Data Communications (3)

## Minor in Computer Science
24 credits

CSIS 152 Introduction to Computers and Programming I-a (3)
CSIS 153 Introduction to Computers and Programming I-b (3)
CSIS 252 Introduction to Computers and Programming II (3)
CSIS 352 Advanced Concepts in Programming (3)

12 credits of electives to be chosen from the list of required or restricted elective courses for the Computer Science major.

## Minor in Cybersecurity

27 credits

Students completing a Minor in Cybersecurity at MSUM will be able to evaluate the security needs of a system, and competently design and implement secure systems to reduce vulnerabilities and minimize risks. Students will be able to communicate, to technical and non-technical audiences, about cybersecurity issues in Information Systems. To receive a Minor in Cybersecurity, the student must meet the minimum university requirements and complete 27 credits, required for this Minor.

Minimum cumulative GPA: 2.50
Grade of C- or better for CSIS 152, CSIS 153, CSIS 252 & MATH 210

CSIS 320 Architecture (4)
CSIS 349 Network & Data Communications (3)
CSIS 349L Network & Data Communications Lab (1)
CSIS 352 Advanced Concepts in Programming (3)
CSIS 362 Fundamentals of Cybersecurity (3)
CSIS 364 Information Systems Security (3)
CSIS 430 Operating Systems (4)
CSIS 462 Software Security (3)
CSIS 464 Software Security Analysis (3)

## Economics, Law and Politics

**MacLean Hall 380, (218) 477-2842**
**Co-Chairs:** Deborah Kukowski Schaefer and Gregory Stutes
**Faculty:** Steven Bolduc, Oscar Flores-Ibarra, Darrin Grubb, Tonya Jo Hansen, Barbara Headrick, Paul Kramer, Deone Merkel, Deborah Schaefer Kukowski, Gregory Stutes

**Economics**

The major and minor programs in economics offer a set of required and elective courses designed to develop students' abilities for analyzing complex choices in a rapidly changing world. Two emphases within the major in economics, a traditional liberal arts program and business economics are available. Both prepare students for careers in finance, private business, education and government.

**Political Science**

The ancient Greek philosopher, Aristotle, indicated that among all areas of human inquiry, political science is the "master science". Not only is the study of politics challenging, rewarding, and important, but it often leads to careers in foreign and domestic government service, higher education and the practice of law.

## BS Degree in Economics

The Economics degree is a rigorous program that allows students to tailor their coursework to fit their interests, whether they're business, law, education, international affairs, public policy, finance or research. To receive the B.S. Degree in Economics, the student must meet the minimum university requirements and specific requirements for the program. Completion of 120 credits is required for this degree which includes the Liberal Arts and Sciences Curriculum.

Student Learning Outcomes

- Students should demonstrate awareness of a broad range of sub-fields in economics.
- Students should demonstrate knowledge of basic economics concepts.
- Students should be able to conduct original research in economics.
- Students should demonstrate effective presentation skills.
- Students should demonstrate effective writing skills.
- Students should demonstrate the ability to apply quantitative tools.

**Program Delivery Mode**

Land plus: face-to-face where some online courses may be available or required

**Designated Writing Intensive Course for Major**

ECON 492 Senior Seminar

**Core Requirements (21 credits)**

ECON 202 Principles of Economics I: Micro (3)
ECON 204 Principles of Economics II: Macro (3)
ECON 302 Intermediate Microeconomic Theory (3)
ECON 304 Intermediate Macroeconomic Theory (3)

ECON 370 Quantitative Economic Analysis (3)
ECON 425 International Trade and Finance (3)
ECON 492 Economics Seminar (3)

**Related Requirements (21 credits)**
In addition to the listed courses, students must take six elective credits in Accounting or Computer Science. Students planning to do graduate work in Economics are encouraged to take additional mathematics courses.

ACCT 230 Principles of Accounting I (3)
CSIS 103 Computer Concepts and Applications (3)
ENGL 387 Technical Report Writing (3) **or**
COMM 301 Business and Professional Communication (3)
MATH 229 Topics in Calculus (3) **or**
MATH 261 Calculus I (4)
MATH 234 Introduction to Probability and Statistics (3)

**Restricted Electives (15 credits)**
Fifteen additional elective credits in Economics courses are required. ECON 100 may not be used as electives for Economic majors. Select from the following:

ECON 305 The Economics of Poverty, Discrimination, and Inequality (3)
ECON 315 Government and Business (3)
ECON 320 Money and Banking (3)
ECON 340 The Gendered Economy (3)
ECON 350 Public Finance (3)
ECON 390 Topics in Economics (1-3)
ECON 415 Industrial Organization and Public Policy (3)
ECON 416 Labor Economics (3)
ECON 469 Internship (1-12)
ECON 497 Independent Study in Economics (1-3)

**Business Economics Emphasis (37 credits)**

Program Requirements
ECON 315 Government and Business (3) **or**
ECON 415 Industrial Organization and Public Policy (3)
ECON 320 Money and Banking (3)

Related Requirements (22 credits)
ACCT 231 Principles of Accounting II (3)
ACCT 280 Legal Environment of Business (3)
FINC 340 Financial Management (3)
MATH 261 Calculus I (4)
MGMT 260 Principles of Management (3)
MGMT 371 Introduction to Business Analytics (3)
**or**
GEOS 205 Thinking Spatially (3)
MKTG 270 Principles of Marketing (3)

Students planning to do graduate work in Economics are encouraged to take additional mathematics courses.

Restricted Electives (9 credits)
Students must complete nine elective credits in Economics. ECON 100 does not count as an elective.

## BA Degree in Political Science

The Political Science degree provides outstanding instruction on the study of government institutions, public processes, politics and political behavior. Students will learn to embrace diplomatic approaches, acknowledge versatility in political thought and understand global perspectives through a variety of learning experiences. A Political Science degree will prepare students exceedingly well for careers in various fields, including government, business, management and international affairs. To receive the B.A. Degree in Political Science, the student must meet the minimum university requirements and specific requirements for the program. Completion of 120 credits is required for this degree which includes the Liberal Arts and Sciences Curriculum.

Student Learning Outcomes

- Students demonstrate familiarity with major concepts, institutions and theories in political science.
- Students can apply knowledge of major concepts, institutions and theories in political science to political events and government policymaking.

- Students demonstrate familiarity with the basic goals, means and critiques of political science research.
- Students demonstrate effective writing skills.

**Program Delivery Mode**
Land plus: face-to-face where some online courses may be available or required

**Designated Writing Intensive Course for Major**
POL 349 or POL 350 (Listed in Core Requirements)

**Core Requirements (21 credits)**
POL 105 Making Sense of Politics (3)
POL 120 American National Government and Politics (3)
POL 160 International Relations (3)
POL 230 Introduction to the Law (3) **or**
POL 322 Executive/Legislative Process (3)
POL 310 Political Science Research Methods (3)
POL 340 Public Administration (3) **or**
POL 341 Public Policy (3)
POL 349 Great Power Politics (3) **or**
POL 350 Comparative Governments of Western Europe (3)

**Electives (27 credits)**
Students must take sufficient electives in Political Science courses to bring the total Political Science credits to 48.

**Public Affairs Emphasis (27 credits)**

Program Requirements (12 credits)
ACCT 230 Principles of Accounting I (3)
MGMT 260 Principles of Management (3)
ECON 202 Principles of Economics I: Micro Economics (3)
ECON 204 Principles of Economics II: Macro Economics (3)

Restricted Electives (15 credits)
Choose 15 credits from the following list:

ACCT 321/POL 321 Employment Law (3)
ECON 302 Intermediate Microeconomic Theory (3)
ECON 304 Intermediate Macroeconomic Theory (3)
ECON 315/MGMT 315 Government and Business (3)
ECON 350 Public Finance (3)
ECON 416 Labor Economics (3)
ECON 425 International Trade & Finance (3)
ECON 469 Internship (1-6)
POL 221 Minnesota State and Local Government (3)
POL 230 Introduction to the Law (3) **OR** POL 322 Executive & Legislative Process (3)
POL 332 Constitutional Law I: Institutional Powers & Constraints (3)
POL 340 Public Administration (3) **OR** POL 341 Public Policy (3)
POL 345 Environmental Politics (3)
POL 469 Internship (1-6)

*A maximum of 6 credits of internship credits will count toward fulfillment of the degree requirements.

**Pre-Law Emphasis (27 credits)**

Program Requirements (12 credits)
ACCT 280 Legal Environment of Business (3)
POL 335/CJ 335 Criminal Law (3)
POL 332 Constitutional Law I: Institutional Powers & Constraints (3) **OR** POL 333 Constitutional Law II: Civil Rights & Liberties (3)
POL 230 Introduction to the Law (3) **OR** POL 322 Executive & Legislative Process (3)

Restricted Electives (15 credits)
Choose 15 credits from the following list:

ACCT 306 Contracts and Business Entities (3)
CJ 200 Introduction to Criminal Justice (4)
CJ 309 Law and Society (4)
POL 350 Contract Law and Drafting (3)
POL 416 Elder Law (3)
POL 221 Minnesota State and Local Government (3)
POL 332 Constitutional Law I: Institutional Powers & Constraints (3) **OR** POL 333 Constitutional Law II: Civil Rights & Liberties (3)
POL 340 Public Administration (3) **OR** POL 341 Public Policy (3)
POL 337/CJ 337 Criminal Procedure (3)
POL 469 Internship (1-6)
PHIL 110 Practical Reasoning (3) **OR** PHIL 340 Symbolic Logic (3)

PHIL 312 Business Ethics (3) **OR** PHIL 318 Professional Ethics (3)

## Minor in Economics

21 credits

**Core Requirements (12 credits)**

ECON 202 Principles of Economics I: Micro (3)
ECON 204 Principles of Economics II: Macro (3)
ECON 300 Global Economic Issues (3) **or**
ECON 425 International Trade and Finance (3)
ECON 302 Intermediate Microeconomic Theory (3) **or**
ECON 304 Intermediate Macroeconomic Theory (3)

**Restricted Electives (9 credits)**

Nine approved credits in Economics courses. ECON 100 does not count as an elective. Select from the following:

ECON 300 Global Economic Issues (3) **or**
ECON 425 International Trade and Finance (3)
ECON 302 Intermediate Microeconomic Theory (3) **or**
ECON 304 Intermediate Macroeconomic Theory (3)
ECON 305 The Economics of Poverty, Discrimination, and Inequality (3)
ECON 320 Money and Banking (3)
ECON 350 Public Finance (3)
ECON 390 Topics in Economics (1-3)
ECON 416 Labor Economics (3)
ECON 469 Internship (1-12)
ECON 494 Undergraduate Research in Economics (1-3)

## Minor in Political Science

24 credits

**Core Requirements (9 credits)**

POL 105 Making Sense of Politics (3)
POL 120 American National Government and Politics (3)
POL 160 International Relations (3)

**Restricted Electives (15 credits)**

Students must earn at least fifteen credits of Political Science electives (or approved exceptions), nine of which must be at the 300 level or above. A maximum of 6 internship credits will count toward fulfillment of the minor requirements.

## Certificate in Economics of Data Science

The Economics of Data Science certificate provides students with foundational skills to utilize data effectively. Students will be able to collect, analyze, display, and provide meaningful results from economic data.

Student Learning Outcomes

- Use internet sources to collect, manage, and download economic data.
- Use data analytic techniques to provide summary statistics.
- Use computer software to provide appropriate graphs or tables of collect data.
- Address potential data problems and provide a summary of collect data.

**Core Requirements (9 credits)**

ECON 202 Principles of Microeconomics (3)
ECON 204 Principles of Macroeconomics (3)
ECON 300 Global Economic Issues (3)

**Electives (3 credits)**

3 additional credits in Econ courses at 300 level or above are required. Econ 469 may not be used as an elective.

## Mathematics

**MacLean Hall 375, (218) 477-2274**
**Chair:** Adam Goyt
**Faculty:** Ashok Aryal, Ellen Fagerstrom, Tamara Fitting, Damiano Fulghesu, Adam Goyt, Timothy Harms, Hongyan Hou, Justin James, Megan Jensen, Lian Ng, Carol Okigbo, Tamara Schmiess, Sara Solhjem

The Mathematics Department offers four majors for students to choose from. Each of the four majors includes a core of mathematics courses that starts with the calculus sequence, along with additional upper-level mathematics courses that are specific to the major chosen. In addition, students in each major must complete a two-semester sequence of upper-level math courses where the second course builds directly upon the

material learned in the first course and requires the student to synthesize the material.

The Bachelor of Arts (B.A.) degree in Mathematics is a general Mathematics degree that will prepare students to go to graduate school in Mathematics or to pursue other opportunities appropriate to a Mathematics major. The program includes 33 credits of Math core requirements, starting with the Calculus sequence. In addition, students will take 15 credits of upper level Math electives that may be chosen to meet the students' individual interests. Students must complete a two-semester sequence of upper level Math courses where the second course builds directly upon the material learned in the first course and requires the student to synthesize the material. The courses in that sequence are included in the core and elective courses that are required for the program. Students pursuing this degree have enough free electives to pursue a minor or to explore other academic interests.

The Bachelor of Science (B.S.) degree in Mathematics Education will prepare students for a career as a secondary education teacher in Mathematics. The program includes 46 credits in Mathematics, starting with the Calculus sequence. These courses include ones that are core to any Mathematics major as well as ones that are specific to Mathematics Education. Additionally, 36 credits of courses that are core to any Secondary Education major are required. Every Mathematics major at Minnesota State University Moorhead requires a sequence of upper level courses. In the case of the Mathematics Education major, that sequence is Math 416 and the capstone experience of student teaching.

The Bachelor of Science (B.S.) degree in Mathematics with the Computational emphasis includes courses from several areas of mathematics, including mathematical analysis, statistics, and computer modeling and simulation. Many of the courses will involve heavy use of computers. Computational mathematics is focused on the skills needed to solve real-world problems. The program includes 41 credits of required Math courses, starting with the Calculus sequence, as well as two other Math courses chosen from specific lists. At least one of those two additional Math courses must be chosen to complete a two-semester upper level sequence. Typical choices for that upper level sequence for Computational majors would be Math 335/435, Math 311/411 or Math 366/466, although other options are available. Students should see their advisor for additional discussion. In addition, 15 credits of CSIS courses are required for this program. Students pursuing this degree have enough free electives to pursue a minor or to explore other academic interests.

The Bachelor of Science (B.S.) degree in Mathematics: Actuarial Science will prepare students for a career as an Actuary. The field requires knowledge of probability, statistics, finance, and economics. Actuaries often work in the financial services sector, including working for insurance companies, commercial banks, and investment banks. The program includes 43 credits of Mathematics courses, starting with the Calculus sequence. These courses include a two-semester upper level sequence of Math 335/435. In addition, the program requires 24 credits of related requirements from the fields of Economics, Computer Science, Finance, and Accounting. Students pursuing this degree have enough free electives to pursue a minor or to explore other academic interests.

Students who major in mathematics often declare a minor in a second field such as biology, chemistry, physics, computer science, or business.

The department also offers minors in Mathematics and Statistics that could complement any major, as well as a minor that is specific to those majoring in Elementary Inclusive Education.

## BA Degree in Mathematics

The BA in Mathematics is a general Mathematics degree that will prepare students to go to graduate school in Mathematics or to pursue other opportunities appropriate to a Mathematics major. The program includes 33 credits of Math core requirements, starting with the Calculus sequence. In addition, students will take 15 credits of upper

level Math electives that may be chosen to meet the students' individual interests. Students must complete a two-semester sequence of upper level Math courses where the second course builds directly upon the material learned in the first course and requires the student to synthesize the material. The courses in that sequence are included in the core and elective courses that are required for the program.
Students pursuing this degree have enough free electives to pursue a minor or to explore other academic interests.
To receive the B.A. Degree in Mathematics, the student must meet the minimum university requirements and specific requirements for the program. Completion of 120 credits is required for this degree which includes the Liberal Arts and Sciences Curriculum.

Student Learning Outcomes

- Demonstrate an understanding of the theory and applications of Calculus.
- Apply technology to solving problems.
- Demonstrate the ability to write and analyze proof and/or use models to make real world predictions.
- Demonstrate an ability to precisely communicate ideas orally and in writing.
- Demonstrate an understanding of the breadth of mathematics and its deep interconnecting principles.
- Apply critical thinking skills to solve multi-step problems and perform complex tasks.
- Demonstrate the mathematical skills and knowledge to facilitate a life of ongoing and independent learning.

**Program Delivery Mode**
Land plus: face-to-face where some online courses may be available or required

**Designated Writing Intensive Course for Major**
MATH 491 - Mathematical Writing

**Core Requirements (33 credits)**
All majors must complete the ETS Major Field Test in Mathematics.

MATH 260 Computer Calculus (1)
MATH 261 Calculus I (4)
MATH 262 Calculus II (4)
MATH 291 LaTeX (1)
MATH 311 Introduction to Proof and Abstract Mathematics (3)
MATH 323 Multi-Variable and Vector Calculus (4)
MATH 327 Introduction to Linear Algebra (3)
MATH 361 Intermediate Analysis I (4)
MATH 392 Sophomore Seminar (1)
MATH 476 Abstract Algebra I (4)
MATH 491 Mathematical Writing (3)
MATH 492 Senior Seminar (1)

Students completing a BA in Mathematics must take an upper level sequence chosen from the following list.

MATH 311 AND MATH 411, OR
MATH 327 AND MATH 427, OR
MATH 361 AND MATH 362, OR
MATH 366 AND MATH 466, OR
MATH 476 AND MATH 477

Each of these courses is also either a Core Requirement or is included in the required 15 credits of upper level MATH electives.

**Related Requirements (3 credits)**
CSIS 152 Introduction to Computers and Programming I-a (3)

**Restricted Electives (15 credits)**
Students must take 15 credits of electives in mathematics. All electives must be at the 300 level or higher. Math 302, 303, 304, 316, 386, 402, 406, 416, and 486 may not be counted among the 15 required electives.

## BS Degree in Mathematics

A B.S. Degree in Mathematics with the Computational emphasis includes courses from several areas of mathematics, including mathematical analysis, statistics, and computer modeling and simulation. Many of the courses will involve heavy use of computers. Computational mathematics is focused on the skills needed to solve real-world problems.

The program includes 41 credits of required Math courses, starting with the Calculus sequence, as well as two other Math courses chosen from specific lists. At least one of those two additional Math courses must be chosen to complete a two-semester upper level sequence. Typical choices for that upper level sequence for Computational majors would be Math 335/435, Math 311/411 or Math 366/466, although other options are available. Students should see their advisor for additional discussion. In addition, 15 credits of CSIS courses are required for this program.
Students pursuing this degree have enough free electives to pursue a minor or to explore other academic interests.
To receive the B.S. Degree in Mathematics, the student must meet the minimum university requirements and specific requirements for the program. Completion of 120 credits is required for this degree which includes the Liberal Arts and Sciences Curriculum.

Student Learning Outcomes

- Demonstrate an understanding of the theory and applications of Calculus.
- Apply technology to solving problems.
- Demonstrate the ability to write and analyze proof and/or use models to make real world predictions.
- Demonstrate an ability to precisely communicate ideas orally and in writing.
- Demonstrate an understanding of the breadth of mathematics and its deep interconnecting principles.
- Apply critical thinking skills to solve multi-step problems and perform complex tasks.
- Demonstrate the mathematical skills and knowledge to facilitate a life of ongoing and independent learning.

**Program Delivery Mode**
Land plus: face-to-face where some online courses may be available or required

**Designated Writing Intensive Course for Major**
MATH 491 Mathematical Writing

**Core Requirements (23 credits)**
All majors must complete the ETS Major Field Test in Mathematics.

MATH 260 Computer Calculus (1)
MATH 261 Calculus I (4)
MATH 262 Calculus II (4)
MATH 311 Introduction to Proof and Abstract Mathematics (3)
MATH 323 Multi-Variable and Vector Calculus (4)
MATH 327 Introduction to Linear Algebra (3)
MATH 335 Intermediate Probability and Statistics I (4)

**Computational Math Emphasis (36 credits)**

Program Requirements (18 credits)
MATH 291 LaTex (1)
MATH 355 Mathematical Modeling (3)
MATH 361 Intermediate Analysis I (4) **or**
MATH 435 Mathematical Statistics I (4)
MATH 366 Differential Equations (3)
MATH 450 Numerical Analysis I (4)
MATH 491 Mathematical Writing (3)

Students completing a BS in Mathematics with a Computational emphasis must take an upper level sequence chosen from the following list.

MATH 335 AND MATH 435, OR
MATH 366 AND MATH 466, OR
MATH 311 AND MATH 411, OR
MATH 327 AND MATH 427

The first course in each of these sequences is a required course for the emphasis, and the second course is an allowed option or upper level Math elective in the program.

Related Requirements (15 credits)
Students must take fifteen credits of approved Computer Science and Information Systems courses. These must include the following courses:

CSIS 152 Introduction to Computers and Programming Ia (3) **and**
CSIS 153 Introduction to Computers and Programming Ib (3) **and**

CSIS 252 Introduction to Computers and Programming II (3)

plus any two of the following CSIS courses:

CSIS 304 Databases (3)
CSIS 335 Graphical User Interface Programming (3)
CSIS 336 C#.Net Programming (3)
CSIS 349 Networks and Data Communications (3)
CSIS 352 Advanced Concepts in Programming (3)
CSIS 360 Linux Programming and Development Tools (3)
CSIS 446 Decision Support Systems (3)
CSIS 450 Programming Languages (3)

Restricted Electives (3 credits)
Students must take three credits in mathematics at the level of Math 300 or higher and may not include Math 302, 303, 304, 316, 386, 402, 406, 416, or 486.

## BS Degree in Mathematics: Actuarial Science

The B.S. Degree in Mathematics: Actuarial Science will prepare students for a career as an Actuary. The field requires knowledge of probability, statistics, finance, and economics. Actuaries often work in the financial services sector, including working for insurance companies, commercial banks, and investment banks. The program includes 43 credits of Mathematics courses, starting with the Calculus sequence. These courses include the two-semester upper level sequence of Math 435/436. In addition, the program requires 24 credits of related requirements from the fields of Economics, Computer Science, Finance, and Accounting. Students will be prepared to pass the P, FM, SRM, and FAM Actuarial Science Exams before graduating. Students pursuing this degree have enough free electives to pursue a minor or to explore other academic interests. To receive the B.S. Degree in Mathematics: Actuarial Science, the student must meet the minimum university requirements and specific requirements for the program. Completion of 120 credits is required for this degree which includes the Liberal Arts and Sciences Curriculum.

Student Learning Outcomes

- Demonstrate an understanding of the theory and applications of Calculus.
- Apply technology to solving problems.
- Demonstrate the ability to write and analyze proof and/or use models to make real world predictions.
- Demonstrate an ability to precisely communicate ideas orally and in writing.
- Demonstrate an understanding of the breadth of mathematics and its deep interconnecting principles.
- Apply critical thinking skills to solve multi-step problems and perform complex tasks.
- Demonstrate the mathematical skills and knowledge to facilitate a life of ongoing and independent learning.

**Program Delivery Mode**
Land plus: face-to-face where some online courses may be available or required

**Designated Writing Intensive Course for Major**
MATH 491 Mathematical Writing

**Core Requirements (19 credits)**
All majors must complete the ETS Major Field Test in Mathematics.

MATH 260 Computer Calculus (1)
MATH 261 Calculus I (4)
MATH 262 Calculus II (4)
MATH 311 Introduction to Proof and Abstract Mathematics (3)
MATH 323 Multi-Variable and Vector Calculus (4)
MATH 327 Introduction to Linear Algebra (3)

**Program Requirements (24 credits)**
MATH 291 LaTeX (1)
MATH 321 Financial Mathematics (3)
MATH 336 Intermediate Probability and Statistics II (3)
MATH 435 Mathematical Statistics I (4)
MATH 436 Mathematical Statistics II (3)
MATH 438 Fundamentals of Actuarial Mathematics (3)
MATH 491 Mathematical Writing (3)
MATH 361 Intermediate Analysis I (4) **or**
MATH 450 Numerical Analysis I (4)

**Related Requirements (24 credits)**
ACCT 230 Principles of Accounting I (3)
ACCT 231 Principles of Accounting II (3)
CSIS 152 Intro to Computers and Programming I-a (3)
ECON 202 Principles of Economics I: Micro (3)
ECON 204 Principles of Economics II: Macro (3)
FINC 340 Financial Management (3)
FINC 360 Principles of Investment (3)
FINC 463 Futures and Options (3)

## BS Degree in Mathematics Education

The B.S. Degree in Mathematics Education will prepare students for a career as a secondary education teacher in Mathematics. The program includes 46 credits in Mathematics, starting with the Calculus sequence. These courses include ones that are core to any Mathematics major as well as ones that are specific to Mathematics Education. Additionally, 36 credits of courses that are core to any Secondary Education major are required. Every Mathematics major at Minnesota State University Moorhead requires a sequence of upper level courses. In the case of the Mathematics Education major, that sequence is Math 416 and the capstone experience of student teaching. To receive the B.S. Degree in Mathematics Education, the student must meet the minimum university requirements and specific requirements for the program. Completion of 120 credits and a 2.5 GPA or higher is required to graduate with this degree which includes the Liberal Arts and Sciences Curriculum and Secondary Teaching Licensure Education requirements. Teacher licensure requirements must be met in order to receive a secondary teaching license in the state of Minnesota.

Student Learning Outcomes

- Demonstrate an understanding of the theory and applications of Calculus.
- Apply technology to solving problems.
- Demonstrate the ability to write and analyze proof and/or use models to make real world predictions.
- Demonstrate an ability to precisely communicate ideas orally and in writing.
- Demonstrate an understanding of the breadth of mathematics and its deep interconnecting principles.
- Apply critical thinking skills to solve multi-step problems and perform complex tasks.
- Demonstrate the mathematical skills and knowledge to facilitate a life of ongoing and independent learning.

**Program Delivery Mode**
Land plus: face-to-face where some online courses may be available or required

**Designated Writing Intensive Course for Major**
MATH 416 Math in the Secondary School

**Core Requirements (76 credits)**
MATH 260 Computer Calculus (1)
MATH 261 Calculus I (4)
MATH 262 Calculus II (4)
MATH 311 Introduction to Proof and Abstract Mathematics (3)
MATH 316 Teaching Mathematics in the Middle Grades (3)
MATH 323 Multi-Variable and Vector Calculus (4)
MATH 327 Introduction to Linear Algebra (3)
MATH 335 Intermediate Probability and Statistics I (4)
MATH 361 Intermediate Analysis I (4)
MATH 416 Mathematics in the Secondary School (3)
MATH 476 Abstract Algebra I (4)
MATH 486 History of Mathematics (3) **or**
MATH 386 Eureka! A History of Mathematical Ideas (3)
MATH 487 Foundations of Geometry (3)
**Total: 43 credits**

Secondary Education Licensure Requirements
Students must earn at least a C- or higher in all licensure coursework.

COMM 100 Speech Communication (3)
ED 205 Introduction to Education (3)
ED 294 Educational Psychology (3)
ED 310 Social Foundations of Education (3)
ED 498 The Professional Teacher in the Classroom (3)

ED 448 Reading Study Skills in the Content Areas (3)
ED 461S Student Teaching: Secondary (12) **or**
ED 460S Student Teaching: Secondary (6) **and**
EECE 480E Student Teaching: Elementary (6) **or**
ED 461V Student Teaching: Secondary/K-12 (12)
SPED 413 Teaching in Inclusive Environments (3)
**Total: 33 credits**

Teacher licensure requirements must be met in order to receive a secondary teaching license in the state of Minnesota. The MN Professional Educator Licensing and Standards Board information can be found HERE.

Information on MSUM Teacher Licensure can be found HERE

**Restricted Electives (3 credits)**
Students must take three elective credits in mathematics. These electives must be at the 300 level or higher and may not include Math 302, 303, 304, or 406.

## University Studies

The Bachelor of Science in University Studies is intended for two groups of students: Those who wish to complete a generalist degree and those students whose goals have changed and no longer want to complete their original major. The program is housed in the Mathematics department. Completion of 120 credits is required for this degree which includes the Liberal Arts and Sciences Curriculum.

Student Learning Outcomes

- Acquire foundational knowledge of theories and perspectives in a variety of disciplines
- Compare and contrast the basic methodologies of multiple disciplinary areas.
- Effectively express ideas in writing

40 credits of LASC
15 credits (30 total) from two of the areas of emphasis listed below.

These 30 credits of the degree program must be at the 300-400 level.

- Minimum GPA in each emphasis 2.0
- One designated writing-intensive course at the 300-400 level in one area of emphasis
- Submission of portfolio or essay addressing SLO

Areas of Emphasis

- History and Social Sciences (History, Political Science, Criminal Justice, Sociology, Economics, Anthropology, Psychology)
- Arts, Humanities, and Communication (Humanities, Music, Film, Animation, Art, Communication, English, any Language courses, Graphic Interactive Design, Photography, Women Studies)
- Natural Sciences (Biology, Biochemistry & Biotechnology, Astronomy, Physics, Chemistry, Mathematics, Geosciences, Physical Science, Sustainability)
- Professional Studies (Accounting, Business, Computer Science & Information Systems, Construction Management, Education, Early Childhood Education, Entertainment Industries & Technology, Health, Entrepreneurship, Finance, Health Services Administration, Leadership Studies, Management, Marketing, Nursing, Operations Management, Project Management, Physical Education, School of Teaching and Learning, Social Work, Speech/Language/Hearing Sciences, Special Education)

The list of courses included after each emphasis is not meant to be exhaustive, but rather illustrative of which rubrics will belong to each emphasis. The intent of the program is to be inclusive of all the rubrics offered at the university.

## Minor in Mathematics

25 credits

This minor is a general Mathematics minor that consists of the calculus sequence, a course in discrete mathematics, and an additional nine credits of upper-level electives that can be chosen to match the interests of the student, for a total of 25 credits.

**Core Requirements (16 credits)**
MATH 210 Concepts in Discrete Mathematics (3)
**OR**
MATH 311 Introduction to Proof and Abstract Mathematics (3)
MATH 260 Computer Calculus (1)
MATH 261 Calculus I (4)
MATH 262 Calculus II (4)
MATH 323 Multi-Variable and Vector Calculus (4)

**Restricted Electives (9 credits)**
Students must take 9 credits of upper level Mathematics electives chosen from the following list.

MATH 311 Introduction to Proof and Abstract Mathematics (3)
MATH 321 Financial Mathematics (3)
MATH 327 Introduction to Linear Algebra (3)
MATH 335 Intermediate Probability and Statistics I (4)
MATH 336 Intermediate Probability and Statistics II (3)
MATH 355 Mathematics Modeling (3)
MATH 361 Intermediate Analysis I (4)
MATH 362 Intermediate Analysis II (3)
MATH 366 Differential Equations (3)
MATH 392 Sophomore Seminar (1)
MATH 411 Introduction to Combinatorics (3)
MATH 421 Actuarial Science I (3)
MATH 435 Mathematics Statistics I (4)
MATH 450 Numerical Analysis I (4)
MATH 476 Abstract Algebra I (4)
MATH 486 History of Mathematics (3) or
MATH 386 Eureka! A History of Mathematical Ideas (3)
MATH 487 Foundations of Geometry (3)
MATH 492 Senior Seminar (1)

## Minor in Mathematics: Elementary

## Inclusive Education Major

25-28 credits

This minor contains the Math courses that are expected of people who are applying for licensure to teach Mathematics for grades 5-8. Contact your advisor for current licensure information on whether the minor satisfies the State of Minnesota mathematics licensure requirements for grades 5-8 or the licensure requirements for other states. This minor is a concentration for Elementary Inclusive Education majors.

NOTE: Contact your advisor for current licensure information on whether the minor satisfies the State of Minnesota mathematics licensure requirements for grades 5-8 or the licensure requirements for other states. This minor is a concentration for Elementary Inclusive Education majors. Math 303, 304, and 406 are part of the elementary education major and, thus, these courses are not listed among the requirements for this minor. Additional requirements for licensure include STL 465, ED 294, and STL 495/ED 448. These requirements are also part of the elementary education major and are not listed among the requirements for this minor.

**Core Requirements (22-23 credits)**
MATH 234 Introduction to Probability and Statistics (3) **or**
MATH 335 Intermediate Probability and Statistics I (4)
MATH 261 Calculus I (4)
MATH 262 Calculus II (4)
MATH 210 Concepts in Discrete Mathematics (3)
MATH 316 Teaching Mathematics in the Middle Grades (3)
ED 460M Middle Level Student Teaching (4)
ED 350M Middle Level Field Experience (1)

**Restricted Electives (3-5 credits)**
Students must take one of the four courses listed. Students who choose MATH 323 must take MATH 260 as a co-requisite.

MATH 323 Multi-Variable and Vector Calculus (4) **and** MATH 260 Computer Calculus (1) **or**

MATH 327 Introduction to Linear Algebra (3) **or**
MATH 386 Eureka! A History of Mathematical Ideas **or**
MATH 487 Foundations of Geometry (3)

## Minor in Statistics

23-24 credits

This minor in Statistics includes one year of Calculus, Linear Algebra, and courses in the areas of Probability and Statistics.

**Core Requirements (20 credits)**

MATH 235 Introduction to R (1)
MATH 260 Computer Calculus (1)
MATH 261 Calculus I (4)
MATH 262 Calculus II (4)
MATH 327 Introduction to Linear Algebra (3)
MATH 335 Intermediate Probability & Statistics I (4)
MATH 336 Intermediate Probability & Statistics II (3)

**Restricted Electives (3-4 credits)**

Students must complete one of the following courses.

MATH 321 Financial Mathematics (3)
MATH 323 Multi-Variable and Vector Calculus (4)
MATH 435 Mathematical Statistics I (4)

## Paseka School of Business

**Center for Business 207A, (218) 477-4646**
**Co-Chairs:** HyunSang An and Eduardo Pablo
**Faculty:** HyunSang An, Mohamed Elbannon, Shelly Gompf, Wooyang Kim, Vinod Lall, Ralf Mehnert-Meland, Kim Mollberg, Atif Osmani, Eduardo Pablo, Gokce (Greg) Serdar, Mary Stone, Shawn Stumphf, Siwei Zhu

**Areas of Study**

The Paseka School of Business is accredited by AACSB. Majors in Accounting, Finance, Business Analytics and Business Administration are offered. Students majoring in Business Administration can choose from emphasis areas in international business, management, and marketing. The Paseka School of Business offers certificate programs in Business Analytics, Doing Business in China, Banking, Corporate Finance, Investments, and Human Resources. Non-business students can choose minors in Business Administration, Management, and Marketing. The Paseka School of Business also offers a general MBA and an MBA with Healthcare emphasis. All courses in both the MBA curriculum are available online.

**PASEKA SCHOOL OF BUSINESS ADMISSION AND COURSE ENROLLMENT POLICY**

Any MSUM student who has completed the course prerequisites can register for ACCT 280, MGMT 260 and MKTG 270 after completing 30 semester credits. Students may register for FINC 340 after completing 40 semester credits without any special permission. Students seeking to take any courses beyond these four courses must be either admitted to the Paseka School of Business or receive a "program override" from the business academic advisor.

**Obtaining Admission to the Paseka School of Business**

Admission to the Paseka School of Business enables students to register for other upper-level Paseka School of Business courses and to pursue any Paseka School of Business major.

Students who officially declare any Paseka School of Business major must apply for admission. A previously admitted student returning to complete a degree in the Paseka School of Business after a year or more of taking no courses must also formally reapply for admission and will be placed into an existing program and follow the curriculum in effect as of the returning date. The student-initiated application must be approved by the chair of the Paseka School of Business. The applicant must meet the following requirements at the time of application.

- An overall GPA of at least 2.50 (includes all MSUM courses and courses accepted in transfer).
- Completion of, or current enrollment in, the 60th semester credit.
- Must have signed the School of Business Integrity Oath Acknowledgement.

- Completion of, or current enrollment in, the following MSUM courses or equivalent courses: ACCT 230 & ACCT 231; CSIS 104; ECON 202 & ECON 204; ENGL 101; MATH 227 or MATH 229 & MATH 234; and COMM 100.

**Enrollment in Upper-Level School of Business Courses by Non-Business Majors with Business Course Requirements and Non-Business Majors Seeking Minors**

Programs outside the Paseka School of Business often identify upper-level accounting or business courses as required or elective courses within their own programs. In addition, students in other programs may decide to declare a minor in the Paseka School of Business. In both cases, students may need to take upper-level accounting or business courses beyond ACCT 280, FINC 340, MGMT 260, and/or MKTG 270. Such students need to obtain a "program override" from the business academic advisor. Students are also expected to have at least junior standing and meet course prerequisites when taking each course. A maximum of 21 upper-level Paseka School of Business credits may be taken without applying for admission to the Paseka School of Business.

**Enrollment in Upper-Level School of Business Courses by Non-Degree Seeking Undergraduate Degree Holders.**

A non-degree seeking student who has an undergraduate degree may take any course in the Paseka School of Business provided that their undergraduate GPA is at least 2.5 (includes all courses taken or courses accepted in transfer) and that they have satisfied all the prerequisites for that course as shown in the course catalog. When attempting to enroll in courses, the registration system will check for course prerequisite. If a student is found to lack required prerequisites but believe that they have in fact satisfied the requirement, they can seek a program override from the department chair that will allow them to enroll. In addition, after taking at least three courses under this condition, a minimum overall GPA of 2.5 for all such courses must be maintained.

**Course Prerequisites and Overrides**

When students cannot register because the system indicates that they have not satisfied course prerequisites and/or minimum GPA requirements, only department chairs and the Paseka School of Business Academic and Transfer Advisor are authorized to do overrides. As students are responsible for meeting the requirements for course prerequisites prior to attempting to enroll in a course, faculty are advised to inform students of their responsibilities and to only refer students to the co-chairs or the Academic and Transfer Advisor if one of the following two conditions are met:

- The student appears to have satisfied the prerequisite using a transferred course according to their DARS but the system is not recognizing the course as satisfying the prerequisite requirement when attempting to register.
- The student is graduating in the present semester and not being able to enroll in the course due to not having completed the prerequisites will delay their graduation.

MGMT 498 has a minimum GPA requirement as a prerequisite. An override for this requirement will be granted by the Academic Advisor upon receiving acknowledgement from the student in writing that they have been informed of the minimum GPA requirement necessary for graduation. This written acknowledgement will be placed in the faculty advisor's student folder.

**Graduation Policy for School of Business**

All Paseka School of Business majors must have a 2.50 overall GPA to graduate. This GPA is based solely on courses taken at MSUM. All School of Business minors must have a 2.00 GPA in courses comprising the minor.

**Baccalaureate Degree Programs**

Majors in Accounting, Business Administration, Business Analytics and Finance are offered. The following curricula are subject to change. See Program Worksheets for current degree requirements. At least 60 non-business semester credits are required. At least half of the minimum

credits required for degree completion must be earned from departments other than Economics and The Paseka School of Business.

Substitution and waivers of courses required for the B.S. degree in Accounting, Business Administration, Business Analytics and Finance must be approved in writing by the chair of the Paseka School of Business.

At least half of the course requirements for the major or minor must be earned on this campus.

Business majors require:

- completion of related requirements
- completion of core requirements
- completion of major requirements and restricted electives

Graduate Program information can be found at https://www.mnstate.edu/graduate.

## BS Degree in Accounting

Accounting is a field that provides and analyzes financial and other information for effective decision-making. Career opportunities include public, government, non-profit or management accounting, and public or private auditing. To receive the B.S. Degree in Accounting, the student must meet the minimum university requirements and specific requirements for the program. Completion of 120 credits with a 2.5 GPA or above is required to graduate with this degree which includes the Liberal Arts and Sciences Curriculum.

**Admission Requirements**

Students who officially declare any Paseka School of Business major must apply for admission. A previously admitted student returning to complete a degree in the Paseka School of Business after a year or more of taking no courses must also formally reapply for admission and will be placed into an existing program and follow the curriculum in effect as of the returning date. The student-initiated application must be approved by the chair of the Paseka School of Business. The applicant must meet the following requirements at the time of application.

- An overall GPA of at least 2.50 (includes all MSUM courses and courses accepted in transfer).
- Completion of, or current enrollment in, the 60th semester credit.
- Must have signed the School of Business Integrity Oath Acknowledgement.
- Completion of, or current enrollment in, the following MSUM courses or equivalent courses: ACCT 230 & ACCT 231; CSIS 104; ECON 202 & ECON 204; ENGL 101; MATH 227 or MATH 229 & MATH 234; and COMM 100.

Student Learning Outcomes

- Exhibit basic knowledge of business principles and processes.
- Write in a clear and professional manner.
- Prepare and deliver an effective business presentation.
- Identify and analyze ethical issues in a professional context.
- Demonstrate basic understanding of business from a global perspective.

**Program Delivery Mode**

Land plus: face-to-face where some online courses may be available or required

**Designated Writing Intensive Course for Major**

COMM 301 - Business and Professional Communication
OR ENGL 387 - Technical Report Writing

**Core Requirements (54 credits)**

MGMT 498 Strategic Management should be taken after all core requirements are completed.

ACCT 230 Principles of Accounting I (3)
ACCT 231 Principles of Accounting II (3)
ACCT 280 Legal Environment of Business (3)
FINC 340 Financial Management (3)
MKTG 270 Principles of Marketing (3)
MGMT 260 Principles of Management (3)
MGMT 371 Introduction to Business Analytics (3)
MGMT 380 Operations Management (3)
MGMT 498 Strategic Management (3)

ACCT 306 Contracts and Business Entities (2)
ACCT 325 Intermediate Accounting I (4)
ACCT 326 Intermediate Accounting II (4)
ACCT 375 Accounting Systems (3)
ACCT 430 Advanced Accounting (4)
ACCT 441 Tax Accounting I (4)
ACCT 455 Governmental, Not for Profit, Cost Accounting (3)
ACCT 460 Audit I (3)

**Program Requirements**
All Paseka School of Business majors must have a 2.50 overall GPA to graduate. This GPA is based solely on courses taken at MSUM.

Students must complete an experiential learning component in order to graduate. Examples include:

- Internship
- Executive mentorship
- Job shadowing
- Cooperatives
- Study abroad
- Faculty/student research projects
- Participation in academic competitions
- Dragon Fund
- Service learning
- Student academic conference presentations
- Significant class projects for external entities

**Related Requirements (33 credits)**
COMM 301 OR ENGL 387 is the writing-intensive course for this major. Students may substitute CSIS 103 and CSIS 104A for CSIS 104.

CSIS 104 Spreadsheet and Database Applications (3)
ECON 202 Principles of Economics I: Micro (3)
ECON 204 Principles of Economics II: Macro (3)
MATH 229 Topics in Calculus (3) **or** MATH 227 Survey of Differential Calculus with Algebra (4)
MATH 234 Introduction to Probability and Statistics (3)
ENGL 387 Technical Report Writing (3) **or** COMM 301 Business and Professional Communication (3)
PHIL 312 Business Ethics (3)
PSY 113 General Psychology (3) **or** SOC 110 Introduction to Sociology (3)

**Restricted Electives**
These courses are available as electives only and are not required as a part of the program.

ACCT 443 Tax Accounting II (3)
ACCT 461 Audit II (3)
ACCT 469 Internship (1-12)

## Minor Accounting: Business Major
15 credits

ACCT 375 Accounting Systems (3)
ACCT 325 Intermediate Accounting I (4)
ACCT 326 Intermediate Accounting II (4)
ACCT 441 Tax Accounting I (4)

## Minor Accounting: Non-Business Major
24 credits

ACCT 230 Principles of Accounting I (3)
ACCT 231 Principles of Accounting II (3)
ACCT 280 Legal Environment of Business (3)
ACCT 375 Accounting Systems (3)
ACCT 325 Intermediate Accounting I (4)
ACCT 326 Intermediate Accounting II (4)
ACCT 441 Tax Accounting I (4)

## BS Degree in Business Administration
The Business Administration degree provides excellent preparation for fields of business that require diverse thinking and a generalist orientation. Students can focus on emphasis areas in international business, management and marketing. To receive the B.S. Degree in Business Administration, the student must meet the minimum university requirements and specific requirements for the program. Completion of 120 credits with a 2.5 GPA or above is required to graduate with this degree which includes the Liberal Arts and Sciences Curriculum.

**Admission Requirements**
Students who officially declare any Paseka School of Business major must apply for admission. A previously admitted student returning to complete a degree in the Paseka School of Business after a

year or more of taking no courses must also formally reapply for admission and will be placed into an existing program and follow the curriculum in effect as of the returning date. The student-initiated application must be approved by the chair of the Paseka School of Business. The applicant must meet the following requirements at the time of application.

- An overall GPA of at least 2.50 (includes all MSUM courses and courses accepted in transfer).
- Completion of, or current enrollment in, the 60th semester credit.
- Must have signed the School of Business Integrity Oath Acknowledgement.
- Completion of, or current enrollment in, the following MSUM courses or equivalent courses: ACCT 230 & ACCT 231; CSIS 104; ECON 202 & ECON 204; ENGL 101; MATH 227 or MATH 229 & MATH 234; and COMM 100.

Student Learning Outcomes

- Exhibit basic knowledge of business principles and processes.
- Write in a clear and professional manner.
- Prepare and deliver an effective business presentation.
- Identify and analyze ethical issues in a professional context.
- Demonstrate basic understanding of business from a global perspective.

**Program Delivery Mode**
Online Plus: offered entirely online with face-to-face options available for some/all sections

**Designated Writing Intensive Course for Major**
COMM 301 - Business and Professional Communication
OR ENGL 387 - Technical Report Writing

**Core Requirements (42 credits)**
ACCT 230 Principles of Accounting I (3)
ACCT 231 Principles of Accounting II (3)
ACCT 280 Legal Environment of Business (3)
FINC 340 Financial Management (3)
MKTG 270 Principles of Marketing (3)
MGMT 260 Principles of Management (3)
MGMT 371 Introduction to Business Analytics (3)
MGMT 380 Operations Management (3)
MGMT 498 Strategic Management (3)

In addition to the core requirements above, students must choose one course from each area below.

Choose one finance course from list:
FINC 325 Financial Institutions and Markets (3)
FINC 360 Principles of Investment (3)

Choose one management course from list:
MGMT 433 Predictive Analytics (3)
MGMT 451 Organizational Behavior (3)
MGMT 465 Entrepreneurship (3)

Choose one marketing course from list:
MKTG 311 Marketing Management (3)
MKTG 421 Consumer Behavior (3)

Choose one quantitative course from list:
ECON 370 Introduction to Econometrics (3)
MGMT 419 or MKTG 419 Supply Chain Management (3)
MGMT 480 Prescriptive Analytics (3)
MKTG 451 Marketing Research I (3)

Choose one international course from list:
ECON 300 Global Economic Issues (3)
ECON 425 International Trade and Finance (3)
FINC 445 International Financial Management (3)
MGMT 458 International Management (3)
MKTG 444 International Marketing (3)

**Program Requirements**
All Paseka School of Business majors must have a 2.50 overall GPA to graduate. This GPA is based solely on courses taken at MSUM.

Students must complete an experiential learning component in order to graduate. Examples include:

- Internship
- Executive mentorship
- Job shadowing
- Cooperatives
- Study abroad
- Faculty/student research projects

- Participation in academic competitions
- Dragon Fund
- Service learning
- Student academic conference presentations
- Significant class projects for external entities

**Related Requirements (33 credits)**
ENGL 387 OR COMM 301 is the writing-intensive course for this major. Students may substitute CSIS 103 and CSIS 104A for CSIS 104.

CSIS 104 Spreadsheet and Database Applications (3)
ECON 202 Principles of Economics I: Micro (3)
ECON 204 Principles of Economics II: Macro (3)
MATH 229 Topics in Calculus (3) **or** MATH 227 Survey of Differential Calculus with Algebra (4)
MATH 234 Introduction to Probability and Statistics (3)
PHIL 312 Business Ethics (3)
PSY 113 General Psychology (3) **or** SOC 110 Introduction to Sociology (3)
ENGL 387 Technical Report Writing (3) **or** COMM 301 Business and Professional Communication (3)

**Restricted Electives (9 credits)**
Students must take nine credits numbered 300 or above from at least two of the following areas: Accounting, Business, Finance, Economics, Management, and Marketing. Students may use any combination of three credits of the following courses to count as one restricted business elective: Internship (469), Small Business Consulting (406) or Independent Study (497).

**Management Emphasis (24 credits)**

Program Requirements (18 credits)
Students must take both MGMT courses listed, and one FINC and one MKTG course from the list below. In addition, students must choose one quantitative course (Select from MGMT 419 or MGMT 480) and also must take one international course (MGMT 458).

FINC 325 Financial Institutions and Markets (3) **or**
FINC 360 Principles of Investment (3)
MGMT 433 Predictive Analytics (3)
MGMT 451 Organizational Behavior (3) **or**
MGMT 465 Entrepreneurship (3)
MKTG 311 Marketing Management (3) **or**
MKTG 421 Consumer Behavior (3)

Restricted Electives (6 credits)
Students must choose one course (3-credits) from the following list of MGMT electives and one 3 credit business elective course at the 300 or 400 level that is not MGMT. MGMT 419 or MGMT 480 may not be used if used for quantitative course.

MGMT 315 Government and Business (3)
MGMT 415 Industrial Organization and Public Policy (3)
MGMT 416 Labor Economics (3)
MGMT 419 Supply Chain Management (3)
MGMT 440 Human Resource Management (3)
MGMT 442 Compensation and Benefits (3)
MGMT 456 Project Management in Business (3)
MGMT 465 Entrepreneurship (3)
MGMT 469 Internship (1-12)
MGMT 480 Prescriptive Analytics (3)
MGMT 497 Independent Study (1-3)

**Marketing Emphasis (24 credits)**

Program Requirements (18 credits)
Students must take both MKTG courses listed and choose one FINC and one MGMT course from the list below. In addition, students must choose one quantitative course; select from (MKTG 419 or MKTG 451) and also must take one international course (MKTG 444).

FINC 325 Financial Institutions and Markets (3) **or**
FINC 360 Principles of Investment (3)
MGMT 433 Predictive Analytics (3) **or**
MGMT 451 Organizational Behavior (3) **or**
MGMT 465 Entrepreneurship (3)
MKTG 311 Marketing Management (3)
MKTG 421 Consumer Behavior (3)

Restricted Electives (6 credits)
Students must select one course from the list below. Students may not use more than three credits from MKTG 469 and MKTG 497 to satisfy

this section. Students must select one business elective that is not a MKTG course at the 300 or 400 level. Students may not use MKTG 419 or MKTG 451 if used as the quantitative course nor MKTG 433 or MKTG 465 if used for the Management requirement.

MKTG 317 Services Marketing (3)
MKTG 330 Personal Selling (3)
MKTG 325 Digital Marketing (3)
MKTG 419 Supply Chain Management (3)
MKTG 423 Marketing Communications (3)
MKTG 451 Marketing Research I (3)
MKTG 452 Marketing Research II (3)
MKTG 465 Entrepreneurship (3)
MKTG 469 Internship (1-12)
MKTG 497 Independent Study (1-3)

**International Business Emphasis (24 credits)**

Program Requirements (18 credits)
Students must choose one FINC, one MGMT, and one MKTG course from the list below. Students must complete the International courses MGMT 458 and MKTG 444 and select from either ECON 425 or FINC 445.

FINC 325 Financial Institutions and Markets (3) **or**
FINC 360 Principles of Investment (3)
MGMT 433 Predictive Analytics (3) **or**
MGMT 451 Organizational Behavior (3) **or**
MGMT 465 Entrepreneurship (3)
MKTG 311 Marketing Management (3) **or**
MKTG 421 Consumer Behavior (3)
MGMT 458 International Management (3)
MKTG 444 International Marketing (3)
ECON 425 International Trade and Finance (3) **or**
FINC 445 International Financial Management (3)

(2 years) All students must take two years of a second spoken language. All or part of this requirement may be waived due to demonstrated competency.

Restricted Electives (6 credits)
Students must take two courses totaling six credits from the following list, at least one must be numbered 300 or above. Continent/country specific courses will be allowed subject to advisor and chair approval. ECON 425 or FINC 445 cannot be used if already used for quantitative course.

ACCT 469 Internship (1-12) **or**
BUS 469 Internship (1-12) **or**
FINC 469 Internship (1-12) **or**
MGMT 469 Internship (1-12) **or**
MKTG 469 Internship (1-12)
ANTH 248 Ideas of Culture (3)
ECON 425 International Trade and Finance (3) or
FINC 445 International Financial Management (3)
COMM 324 International Communications (3)
POL 160 International Relations (3)
POL 360 American Foreign Policy (3)

## BS Degree in Business Analytics

The Business Analytics major will prepare students in the areas of data analysis and optimization to make data-driven or fact-based business decisions. Students will develop skills in the three broad categories of business analytics techniques – descriptive analytics, predictive analytics and prescriptive analytics. To receive the B.S. Degree in Business Analytics, the student must meet the minimum university requirements and specific requirements for the program. Completion of 120 credits with a 2.5 GPA or above is required to graduate with this degree which includes the Liberal Arts and Sciences Curriculum.

**Admission Requirements**
Students who officially declare any Paseka School of Business major must apply for admission. A previously admitted student returning to complete a degree in the Paseka School of Business after a year or more of taking no courses must also formally reapply for admission and will be placed into an existing program and follow the curriculum in effect as of the returning date. The student-initiated application must be approved by the chair of the Paseka School of Business. The applicant must meet the following requirements at the time of application.

- An overall GPA of at least 2.50 (includes all MSUM courses and courses accepted in transfer).

- Completion of, or current enrollment in, the 60th semester credit.
- Must have signed the School of Business Integrity Oath Acknowledgement.
- Completion of, or current enrollment in, the following MSUM courses or equivalent courses: ACCT 230 & ACCT 231; CSIS 104; ECON 202 & ECON 204; ENGL 101; MATH 227 or MATH 229 & MATH 234; and COMM 100.

Student Learning Outcomes

- Use statistical data analysis techniques for business decision making.
- Use data mining techniques to solve business problems.
- Use cutting edge techniques to develop optimal business solutions.
- Demonstrate proficiency in several business analytics techniques.
- Use business analytics techniques to develop business analytics solutions.

**Program Delivery Mode**
Land plus: face-to-face where some online courses may be available or required

**Designated Writing Intensive Course for Major**
ENGL 387 - Technical Report Writing OR COMM 301 - Business and Professional Communication

**Core Requirements (45 credits)**
ACCT 230 Principles of Accounting I (3)
ACCT 231 Principles of Accounting II (3)
ACCT 280 Legal Environment of Business (3)
FINC 340 Financial Management (3)
MKTG 270 Principles of Marketing (3)
MGMT 260 Principles of Management (3)
MGMT 371 Introduction to Business Analytics (3)
MGMT 380 Operations Management (3)
MGMT 498 Strategic Management (3)
MATH 210 Concepts from Discrete Mathematics (3)
CSIS 304 Databases (3)
MGMT 433 Predictive Analytics (3)
CSIS 446 Intelligent and Predictive Systems (3)
MGMT 480 Prescriptive Analytics (3)
MGMT 492 Business Analytics Capstone (3)

**Program Requirements**
All Paseka School of Business majors must have a 2.50 overall GPA to graduate. This GPA is based solely on courses taken at MSUM.

Students must complete an experiential learning component in order to graduate. Examples include:

- Internship
- Executive mentorship
- Job shadowing
- Cooperatives
- Study abroad
- Faculty/student research projects
- Participation in academic competitions
- Dragon Fund
- Service learning
- Student academic conference presentations
- Significant class projects for external entities

**Related Requirements (37 credits)**
COMM 301 OR ENGL 387 is the writing-intensive course for this major. Students may substitute CSIS 103 and CSIS 104A for CSIS 104.

CSIS 104 Spreadsheet and Database Applications (3)
CSIS 152 Introduction to Computers and Programming I-a (3)
ECON 202 Principles of Economics I: Micro (3)
ECON 204 Principles of Economics II: Macro (3)
MATH 229 Topics in Calculus (3) **or** MATH 227 Survey of Differential Calculus with Algebra (4)
MATH 234 Introduction to Probability and Statistics (3)
MATH 235 Introduction to R (1)
PHIL 312 Business Ethics (3)
PSY 113 General Psychology (3) **or** SOC 110 Introduction to Sociology (3)
ENGL 387 Technical Report Writing (4) **or** COMM 301 Business and Professional Communication (3)

**Restricted Electives (9 credits)**
Students may choose any three of the following courses. Students may not use more than three credits from BUS 469, BUS 490 and BUS 497 to

satisfy this section. The courses must be from at least two areas.

CSIS 153 Introduction to Computers and Programming I-b (3)
ECON 370 Introduction to Econometrics (3)
HSAD 403 Health Informatics (3)
GEOS 205 Thinking Spatially (3)
GEOS 207 GPS Field Techniques (3)
GEOS 210 Cartography (3)
GEOS 307 Introduction to GIS (3)
GEOS 407 Spatial Analysis (3)
COMM 354 Social Media Metrics (3)
PMGT 300 Project Management (3)
OM 380 Methods Improvement (3)
MATH 355 Mathematical Modeling (3)
MATH 336 Intermediate Probability and Statistics II (3)
PHIL 340 Symbolic Logic (3)
MKTG 451 Marketing Research 1 (3)
MKTG 452 Marketing Research 2 (3)
BUS 469 OR BUS 490 OR BUS 497

## Minor in Business Administration: Business Major

15 credits

Students must take fifteen credits in Business Administration courses above the major requirements in any of the business degree programs. Courses which satisfy major requirements cannot be used to satisfy minor requirements. The courses must be chosen from at least three of the following areas: Accounting, Business, Economics, Finance, Management, or Marketing.

## Minor in Business Administration: Non-Business Major

24 credits

Core Requirements (18 credits)
ACCT 230 Principles of Accounting I (3)
ECON 202 Principles of Economics I: Micro (3)
FINC 340 Financial Management (3)
MATH 234 Introduction to Probability and Statistics (3)
MGMT 260 Principles of Management (3)
MKTG 270 Principles of Marketing (3)

Restricted Electives (6 credits)
Students must choose one course from two of the following course groupings: MGMT 380, MGMT 433 or MGMT 451; MKTG 311, MKTG 421 or MKTG 451; FINC 360 or FINC 445.

## Certificate in Business Analytics

12 credits

The four-course Business Analytics Certificate Program introduces a broad category of skills, techniques, and applications that facilitate the use of data to generate business intelligence for effective and smart decision making that could be applied to various hierarchical levels and different functional units within any organization. Students of the program will be able to extract, explore, and analyze large amounts of data to develop predictive models, discover meaningful patterns, and generate rules for business decision making. Organizations are now-a-days collecting increasing amounts of data from their business processes, workforce, customers, etc. without knowing much about how this data could be utilized to provide them the needed competitive advantage and improve key outcome measures. It has become increasingly critical for organizations to understand and leverage the capabilities of BA and inform managers on how to use these techniques to make intelligent business decisions and smart choices that not only guide them in their operational activities but also their identifying scientifically strategic directions. This program is endorsed by SAS.

Student Learning Outcomes

- Use statistical data analysis techniques for business decision-making.
- Use data mining techniques to solve business problems.
- Use cutting edge techniques to develop optimal business solutions.
- Demonstrate proficiency in several business analytics techniques.
- Use business analytics techniques to develop business analytics solutions.

MATH 234 Introduction to Probability and Statistics (3)
MGMT 371 Introduction to Business Analytics (3)
CSIS 304 Databases (3)
MGMT 433 or MKTG 433 Predictive Analytics (3)

## Minor in Entrepreneurship: Non-Business Majors

15 credits

The Entrepreneurship Minor Program provides an introduction to the essential concepts of entrepreneurship mindsets. This program is ideal for students with non-business majors who have not had formal business education, small to medium-sized business owners, and managers responsible for innovation and new product or service development. Through hands-on experience, the program is designed to develop entrepreneurial skills that are in high demand in today's workforce.

Core Requirements (9 credits)
ENTR 229/MGMT 229 Start Your Own Business (3)
MKTG 270 Principles of Marketing (3)
MGMT 465 Entrepreneurship (3)

Restricted Electives (6 credits)
Choose 2 courses from list:
ACCT 230 Principles of Accounting I (3)
ACCT 280 Legal Environment of Business (3)
COMM 379 Ad Agency Practicum (3)
MKTG 325 Digital Marketing (3)
MKTG 421 Consumer Behavior (3)

## Minor in Social Innovation & Entrepreneurship: Non-Business Majors

15 credits

The minor in Social Innovation and Entrepreneurship is designed for non-business majors and provides the business savvy to start up and lead a not-for-profit organization.

Core Requirements (12 credits)
ENTR 229 Start Your Own Business (3)
ENTR 232 Entrepreneurial Marketing (3)
ENTR 233 Case Studies in Social Innovation (3)
ENTR 309 Building a Workable Business Plan (3)

Restricted Electives (3 credits)
Student will choose one course from the following:

ART 345 Art of Social & Environmental Justice (3)
ECON 305 The Economics of Poverty, Discrimination, and Inequality (3)
LEAD 301 Introduction to Leadership (3)
POL 265 International Protection of Human Rights (3)
SOC 210 Social Problems (3)
SOC 325 Social Movements (3)
SW 250 Introduction to Social Welfare and Social Work (3)

## Certificate in Entrepreneurship

15 credits

ENTR 229 Start Your Own Business (3)
ENTR 230 Entrepreneurial Finance (3)
ENTR 231 Entrepreneurial Leadership and Organization (3)
ENTR 232 Entrepreneurial Marketing (3)
ENTR 309 Building a Workable Business Plan (3)

## Minor in International Business: Non-Business Major

24 credits

Core Requirements (18 credits)
ACCT 230 Principles of Accounting I (3)
ECON 202 Principles of Economics I: Micro (3)
FINC 340 Financial Management (3)
MATH 234 Introduction to Probability and Statistics (3)
MGMT 260 Principles of Management (3)
MKTG 270 Principles of Marketing (3)

Restricted Electives (6 credits)
Students must take two of the following courses:

FINC 445 International Financial Management (3)
MGMT 458 International Management (3)
MKTG 444 International Marketing (3)

## Certificate Doing Business in China

16 credits

The Doing Business in China certificate program is designed for students interested in understanding

the complexities of doing business in the cultural and political environment of China and the impact of China's remarkable economic transformation on international business. No prior knowledge or experience with China's business environment is required.

CHIN 101 Beginning Chinese (4)
CHIN 132 Introduction to Chinese Culture (3)
BUS 145 Introduction to International Business (3)
BUS 245 Seminar on Doing Business in China (3)
BUS 345 Business Trip to China (3)

## Minor in Human Resources: Non-Business majors

15 credits

This minor is intended to enhance career opportunities for students pursuing a career in Human Resource Management. The cross-discipline nature of this Minor makes it ideal for students with majors outside of the Paseka School of Business to complete the program without adding an inordinate number of additional credits to their program. The combination of courses assures students will leave MSUM with Human Resource Management capabilities and knowledge that will enable them to successfully manage workers utilizing best practices whilst complying with the myriad of employment laws affecting these tasks.

**Core Requirements (6 credits)**
MGMT 440 Human Resource Management (3)
POL 321 Employment Law (3)

**Restricted Electives (9 credits)**
Choose 3 courses, one from each of these three areas:

Area 1 (People)
COMM 211 Group & Team Communication (3)
COMM 317 Training & Development (3)
COMM 401 Organizational Communication (3)

Area 2 (Org's)
ECON 416 Labor Economics (3)
MGMT 451 Organizational Behavior (3)
MGMT 469 HR-Related Internship (1-12)
PSY 323 Industrial/Organizational Psychology (3)

Area 3 (Finances)
MGMT 442 Compensation & Benefits (3)
MGMT 456 Project Management in Business (3)
OM 393 Occupational Safety & Health (3)
PMGT 300 Project Management & Scheduling (3)

## Minor in Human Resource Business Partner

15 credits

This minor enhances a student's comprehension and knowledge of the function of Human Resource Management within a business setting, assuring that this most instrumental resource (people!) is fully and effectively utilized, assuring both business and employee success. This minor acknowledges the multi-faceted business education that students receive through the Paseka School of Business and addresses the inter-relatedness of all business functions in the achievement of strategic business objectives through the utilization of human resources. This minor is only available to Paseka School of Business majors or graduates.

**Core Requirements (9 credits)**
MGMT 440 Human Resource Management (3)
MGMT 442 Compensation & Benefits (3)
POL 321 Employment Law (3)

**Restricted Electives (6 credits)**
Choose 2 courses from the list below:

COMM 317 Training & Development (3)
COMM 376 Crisis Communications (3)
MGMT 451 Organizational Behavior (3)
MGMT 456 Project Management in Business (3)
MGMT 469 HR-Related Internship (1-12)
OM 393 Occupational Safety & Health (3)

## Minor in Management: Non-Business Majors

24 credits

ACCT 230 Principles of Accounting I (3)
ECON 202 Principles of Economics I: Micro (3)
MATH 234 Introduction to Probability and Statistics (3)

MGMT 260 Principles of Management (3)
MGMT 380 Operations Management (3)
MGMT 440 Human Resource Management (3)
MGMT 433 Predictive Analytics (3) **or**
MGMT 451 Organizational Behavior (3)

Students must take one three credit Management elective.

## Human Resource Strategic Business Partner Certificate

15 credits

This certificate is intended to enhances comprehension and knowledge of the function of Human Resource Management within a business setting, assuring that this most instrumental resource (people!) is fully and effectively utilized, assuring both business and employee success. Participants will explore the inter-relatedness of all business functions in the achievement of strategic business objectives through the utilization of human resources. This certificate is only available to Paseka School of Business majors or graduates.

Student Learning Outcomes

- To provide students with an understanding of the basic human resource management functions including the strategic planning, acquisition, development and compensation of employees.
- To provide students with an understanding of the legal requirements, challenges and compliance issues involved in the management of human resources within an organization.
- Students will understand the role and inter-relatedness of the organization's human resources in the attainment of organizational objectives.
- To ensure students can appreciate and calculate human resource related metrics and to understand and communicate the impact of these metrics on organizational success to relevant stakeholders.
- To provide students with the opportunity to apply and/or explore various concepts and techniques utilized by human resource managers.
- To expose students to issues and ethical challenges associated with the management of people in a complex social setting that is under relentless change and competitive pressures.
- To prepare students to enter the job market better informed of their rights and responsibilities as managers and as employees.

**Core Requirements (9 credits)**
MGMT 440 Human Resource Management (3)
MGMT 442 Compensation & Benefits (3)
POL 321 Employment Law (3)

**Restricted Electives (6 credits)**
Choose 2 courses from this listing:

COMM 317 Training & Development (3)
COMM 376 Crisis Communications (3)
LEAD 301 Introduction to Leadership (3)
MGMT 416 Labor Economics
MGMT 451 Organizational Behavior (3)
MGMT 456 Project Management in Business (3)

## Human Resource Generalist Certificate

15 credits

The Human Resource Generalist Certificate is intended to enhance knowledge and opportunities for individuals pursuing career in Human Resource Management. The cross-discipline nature of this certificate makes it ideal for those with a non-business degrees who wish to enhance their HR knowledge.

**Core Requirements (6 credits)**
MGMT 440 Human Resource Management (3)
POL 321 Employment Law (3)

**Restricted Electives (9 credits)**
Choose 3 courses, one from each of these three areas:

Area 1
COMM 211 Group & Team Communication (3)
COMM 317 Training & Development (3)

Area 2
COMM 401 Organizational Development (3)
MGMT 451 Organizational Behavior (3)

Area 3
MGMT 442 Compensation & Benefits (3)
OM 393 Occupational Safety and Health (3)

## Minor in Marketing: Non-Business

24 credits

ECON 202 Principles of Economics I: Micro (3)
MATH 234 Introduction to Probability and Statistics (3)
MKTG 270 Principles of Marketing (3)
MKTG 311 Marketing Management (3)
MKTG 421 Consumer Behavior (3)
MKTG 451 Marketing Research I (3)

Students must take six credits of Marketing electives.

## BS Degree in Finance

Finance careers are found in banking, corporations, investment companies, insurance, real estate, non-profit institutions and government. To receive the B.S. Degree in Finance, the student must meet the minimum university requirements and specific requirements for the program. Completion of 120 credits with a 2.5 GPA or above is required to graduate with this degree which includes the Liberal Arts and Sciences Curriculum.

**Admission Requirements**

Students who officially declare any Paseka School of Business major must apply for admission. A previously admitted student returning to complete a degree in the Paseka School of Business after a year or more of taking no courses must also formally reapply for admission and will be placed into an existing program and follow the curriculum in effect as of the returning date. The student-initiated application must be approved by the chair of the Paseka School of Business. The applicant must meet the following requirements at the time of application.

- An overall GPA of at least 2.50 (includes all MSUM courses and courses accepted in transfer).
- Completion of, or current enrollment in, the 60th semester credit.
- Must have signed the School of Business Integrity Oath Acknowledgement.
- Completion of, or current enrollment in, the following MSUM courses or equivalent courses: ACCT 230 & ACCT 231; CSIS 104; ECON 202 & ECON 204; ENGL 101; MATH 227 or MATH 229 & MATH 234; and COMM 100.

Student Learning Outcomes

- Exhibit basic knowledge of business principles and processes.
- Write in a clear and professional manner.
- Prepare and deliver an effective business presentation.
- Identify and analyze ethical issues in a professional context.
- Demonstrate basic understanding of business from a global perspective.

**Program Delivery Mode**

Land plus: face-to-face where some online courses may be available or required

**Designated Writing Intensive Course for Major**

COMM 301 - Business and Professional Communication
OR ENGL 387 - Technical Report Writing

**Core Requirements (39 credits)**

ACCT 230 Principles of Accounting I (3)
ACCT 231 Principles of Accounting II (3)
ACCT 280 Legal Environment of Business (3)
FINC 340 Financial Management (3)
MGMT 260 Principles of Management (3)
MGMT 371 Introduction to Business Analytics (3)
MGMT 380 Operations Management (3)
MGMT 498 Strategic Management (3)
MKTG 270 Principles of Marketing (3)
FINC 360 Principles of Investment (3)
FINC 425 Bank Management I (3)
FINC 441 Advanced Financial Management (3)
FINC 445 International Financial Management (3)

**Program Requirements**
All Paseka School of Business majors must have a 2.50 overall GPA to graduate. This GPA is based solely on courses taken at MSUM.

Students must complete an experiential learning component in order to graduate. Examples include:

- Internship
- Executive mentorship
- Job shadowing
- Cooperatives
- Study abroad
- Faculty/student research projects
- Participation in academic competitions
- Dragon Fund
- Service learning
- Student academic conference presentations
- Significant class projects for external entities

**Related Requirements (33 credits)**
COMM 301 OR ENGL 387 is the writing-intensive course for this major. Students may substitute CSIS 103 and CSIS 104A for CSIS 104.

CSIS 104 Spreadsheet and Database Applications (3)
ECON 202 Principles of Economics I: Micro (3)
ECON 204 Principles of Economics II: Macro (3)
MATH 229 Topics in Calculus (3) **or** MATH 227 Survey of Differential Calculus with Algebra (4)
MATH 234 Introduction to Probability and Statistics (3)
PHIL 312 Business Ethics (3)
PSY 113 General Psychology (3) **or** SOC 110 Introduction to Sociology (3)
ENGL 387 Technical Report Writing (4) **or** COMM 301 Business and Professional Communication (3)

**Restricted Electives (12 credits)**
Students must complete 12 credits from the following courses. Students may not use more than three credits from FINC 469, FINC 490 and FINC 497 to satisfy this section.

ECON 320 Money and Banking (3)
ACCT 325 Intermediate Accounting I (4)
ACCT 326 Intermediate Accounting II (4)
FINC 325 Financial Institutions and Markets (3)
FINC 345 Personal Finance (3)
FINC 352 Principles of Insurance and Risk Management (3)
FINC 354 Real Estate Finance and Investments (3)
FINC 426 Bank Management II (3)
FINC 446 Financial Decision Making (3)
FINC 450 Entrepreneurial Finance (3)
FINC 460 Portfolio Analysis and Management (3)
FINC 462 Financial Analysis and Valuation (3)
FINC 463 Futures and Options (3)
FINC 465 Portfolio Management Practicum (1-3)
FINC 469 Internship (1-12)
FINC 490 Topics in Finance (1-3)
FINC 497 Independent Study (1-3)

## Minor in Finance: Business Majors
15 credits

Students must take fifteen credits in Finance courses above the major requirements for any of the business degree programs. Courses which satisfy major requirements cannot be used to satisfy minor requirements.

## Minor in Finance: Non-Business Majors
24 credits

ACCT 230 Principles of Accounting I (3)
ECON 202 Principles of Economics I: Micro (3)
FINC 340 Financial Management (3)
FINC 360 Principles of Investment (3)
FINC 445 International Financial Management (3)
MATH 234 Introduction to Probability and Statistics (3)

Students must earn six credits in Finance electives. Students may not use Accounting or Economics courses to fulfill this requirement.

## Bank Management Certificate
9 credits

The Bank Management Certificate Program utilizes courses that are part of the Finance Major program in the Paseka School of Business. The certificate program will help business students to better understand banking as a career choice. This

certificate program is available to professionals working in the banking field.

Student Learning Outcomes

- Understand why banks and the income statements and balance sheets of banks are unique.
- Apply advanced fixed income risk and financial concepts to the management of financial institutions.
- Employ the techniques used in the industry today to underwrite commercial and commercial real estate loan requests.
- Analyze and make decisions regarding strategies you would employ as the bank manager, learning the results and consequences. React to the market and financial implications of decisions and respond with dynamic strategies in managing a bank.
- Develop and implement strategies to maximize the value of the bank.
- Develop and understanding of the legal and regulatory structure of the banking industry, inclusive of historical milestones.
- Apply financial concepts to the management of financial institutions.
- Utilize available tools and technologies to analyze bank performance and risk positions for privately held and publicly traded banking organizations. Understand what makes entrepreneurial finance different from Corporate Finance.
- Consider the minimum financial aspects to incorporate in a business plan and understand that the financial plan is a dynamic tool to monitor the value and risk of the business.
- Understand how the timing of searching for external capital affects the potential ownership share of the entrepreneur.
- Consider the effects of the (1) high ownership concentration in the hands of the entrepreneur and (2) the difficult of forecasting expected financial performance, in the valuation process of the business or venture.
- Understand valuation from the entrepreneur's and investor's perspective and why these two values are going to be different.

FINC 425 Bank Management I (3)
FINC 426 Bank Management II (3)
FINC 450 Entrepreneurial Finance (3)

## Corporate Financial Management Certificate

9 credits

The Corporate Financial Management Certificate will help you better understand investment as a career choice. This certificate program is also available to professionals working in the corporate financial management field.

Student Learning Outcomes

- Apply Net Present Value and other investment criteria.
- Evaluate capital budgeting proposals by generating pro forma financial statements and cash flows.
- Apply the capital asset pricing model to estimate required return on investments.
- Estimate the cost of capital for a corporation.
- Evaluate effects of alternative capital structure proposals.
- Evaluate effects of alternative dividend policies.
- Evaluate corporate finance problems in value creation, financial modeling, cost of capital, capital budgeting, initial public offering, capital structure, risk management, financing alternatives and restructuring through cases.
- Identify the best course of action given constraints and defend the course chosen.
- Prepare case reports.
- Understand what makes entrepreneurial finance different from Corporate Finance.

- Consider the minimum financial aspects to incorporate in a business plan and understand that the financial plan is a dynamic tool to monitor the value and risk of the business.
- Understand how the timing of searching for external capital affects the potential ownership share of the entrepreneur.
- Consider the effects of the (1) high ownership concentration in the hands of the entrepreneur and (2) the difficult of forecasting expected financial performance, in the valuation process of the business or venture.
- Understand valuation from the entrepreneur's and investor's perspective and why these two values are going to be different.

FINC 441 Advanced Financial Management (3)
FINC 446 Financial Decision Making (3)
FINC 450 Entrepreneurial Finance (3)

## Investment Management Certificate

9 credits

The Investment Management Certificate uses courses that are part of the Finance major to help you better understand investment as a career choice. This certificate program will be made available to professionals working in the investment management field.

Student Learning Outcomes

- Distinguish among major assets that trade in money and capital markets.
- Discuss capital market theory and the use of CAPM in security selection.
- Describe the process of bond valuation and various measures of returns.
- Discuss bond features and sensitivity of its price to interest rates.
- Describe the top down approach to security analysis.
- Describe the portfolio management process.
- Prepare an Investment Policy Statement.
- Describe the process of managing individual investor portfolios and institutional investor portfolios.
- Evaluate equity and fixed-income portfolio management strategies.
- Evaluate performance of a portfolio.
- Examine the structure and characteristics of derivatives markets: options, forward, futures and swaps.
- Apply option pricing models: the Binomial Model and the Black-Scholes Model.
- Evaluate option price sensitivities.
- Evaluate pricing of forwards, futures and swaps.
- Evaluate alternative derivative strategies to manage risk.

FINC 360 Principles of Investment (3)
FINC 460 Portfolio Analysis and Management (3)
FINC 463 Futures and Options (3)

## Professional Management

**Center for Business 207, (218) 477-2104**
**Co-chairs: Rachel Axness and Kathy Cochran**
**Faculty:** Rachel Axness, Josh Behl, Kathy Cochran, Jay Cournia, John Green, Atif Osmani

The **Professional Management** department offers majors, minors, and certificates in applied management. Applied management is a blend of theory, practice, and emerging technologies. The department works closely with industry to develop students into graduates who have the current applicable skills based in solid theory that industry requires.

**Construction Management Mission Statement:**

- To maintain a nationally accredited construction management program, which will produce graduates who will have the technical, managerial and general knowledge necessary to enter and advance professionally in the construction industry.
- Provide an environment, which encourages students and faculty to engage in professional development, critical thinking, and creative endeavors.

- Promote continuous improvement of teaching, learning and program curriculum.

**Construction Management Career Information**
Construction Management (CM) is a professional program that specifically trains graduates to manage, coordinate, and supervise the construction process from conceptual development through final construction on a timely and economical basis. Throughout the program, students learn the responsibilities of coordinating and managing people, materials, processes, budgets, schedules, and contracts, as well as the safety of employees and the general public.

Construction managers hold a variety of job titles, such as project manager, field engineer, estimator, scheduler, or construction manager. On large projects construction managers may work for a general contractor – the firm with the overall responsibility of all construction activities on the job. They oversee the completion of all construction processes in accordance with the engineers or architect's drawings and specification. CM graduates experience excellent job placement and average starting salaries of $65,000+.

The construction management program has a laptop requirement. All CM majors who enroll in CM 230, Estimating I, are required to purchase and utilize a laptop computer in the subsequent CM coursework. CM 230 is the beginning of a sequence of courses where laptops will be integrated into the learning process. Freshman and sophomore level CM courses are exempt from this requirement unless students enroll in the estimating sequence their sophomore year.
****NOTE: Apple/MAC laptops cannot run the software required for the program.**

**Construction Management Program Assessment**
The Construction Management (CM) program at MSU Moorhead is accredited by the American Council of Construction Education (ACCE), which establishes standards and criteria for excellence in construction education.

Assessment of the construction management program must satisfy two entities. First and foremost, assessment is a requirement of ACCE and the CM program must meet or exceed those standards. ACCE requires a comprehensive assessment plan including program outcomes and student performance outcomes, which are outlined below. In addition, Minnesota State University Moorhead (MSUM) requires that all degree-granting programs have a student outcomes assessment plan. This assessment plan is designed to satisfy both entities.

**Operations Management and Project Management Program Mission Statement:**
To transform lives by providing rigorous and applied education to our students.

**Operations Management Program Overview**
The Operations Management (OM) degree is specifically designed for transfer students who have earned an Associate of Applied Science, Associate of Science, or a Diploma in a field from an accredited institution in a field of study related to Industrial Technology. The technical courses coupled with the upper division technical management courses provide the operations management graduate with a unique advantage in today's job market. This "Fast Track" BS degree is appropriate for recent technical college graduates as well as persons in the incumbent workforce seeking an applied educational experience to enhance their competitive advantage and promotional opportunities.

Students identifying operation management as their intended major at MSUM may transfer up to 48 technical credits. A minimum of 30 technical credits will be applied to the technical portion of the OM major. Any remaining technical area credits may be transferred and designated as "free electives" counting toward graduation requirements. The AAS degree transfer may not exceed 64 semester hours including 16 to 22 semester hours in liberal studies. All university graduation requirements apply for the 2+2 transfer degree. The program is structured so that a student may complete the degree with two additional years

of study. The Operations Management 2+2 BS program, the first approved by MN State for a block credit transfer, recognizes the technical courses as a cohesive set of courses with stated and verified educational outcomes.

**Operations Management Career Information**
Operations Management (OM) is a professional program that specifically educates graduates to manage, coordinate, and supervise the operations management process in a variety of industries. Throughout the program, students learn the responsibilities of management, general business, leadership, lean, safety, quality, risk, and production inventory management, allowing them to coordinate and manage people, processes, projects, materials, budgets, schedules, and logistics.

Operations managers hold a variety of job titles, such as operations manager, technical sales and marketing, quality assurance specialists, design expert, information management, production management, materials manager, supply chain manager, purchasing, logistics, process engineer, manufacturing engineer, continuous improvement manger, etc. The Operations Management program is offered fully online and on campus.

**Operations Management Program Assessment**
The Operations Management (OM) program at MSU Moorhead is accredited by the Association of Technical Management and Applied Engineering (ATMAE), which establishes standards and criteria for excellence in industrial technology.

Assessment of the operations management program must satisfy two entities. First and foremost, assessment is a requirement of the ATMAE and the OM program must meet or exceed those standards. ATMAE requires a comprehensive assessment plan including program outcomes and student performance outcomes, which are outlined below. In addition, Minnesota State University Moorhead (MSUM) requires that all degree-granting programs have a student outcomes assessment plan. This assessment plan is designed to satisfy both entities.

**Internship/On the Job Requirement**
Students will be required to fulfill an internship/on the job requirement as part of their graduation requirements. The student will participate in various activities with Career Services to ensure they have a proper resume, cover letter and job search strategy. The student is responsible for finding their own internship/on the job requirement. There are three types of internships/on the job training that qualify: 1) If the student is gainfully employed in an industrial technology job setting, they can work with their manager and take their internship at their current place of employment. The manager, faculty advisor and student will outline the specific objectives of the internship to ensure there is a proper amount of operations management related objectives. 2) The student may attend various job fairs, work with industries interested in operations management interns, and/or search companies of interest and find an internship position. Once the student has interviewed and been offered a position as intern, the University paperwork will coincide with the requirements of the employer. 3) The student may launch a full scale job search in the operations management field and treat their first operations management position as their internship. All types of internships must meet the program and university requirements.

**Project Management Program Overview**
The MSU Moorhead's Project Management major is designed for individuals who like to lead projects, get things done, and make an impact with their work. Project managers are needed in all industries and across all professions. It's a degree designed to be flexible and allows you take up to 30 credits in your area of interest and transfer in your 2 year AS or AAS degree. It is also a great fit for AA transfers. You have a lot of flexibility with the degree; you can pair it with an area of emphasis, a minor or even a double major. Project management is a particularly great fit for business, marketing, computer science, human resources, and medical professionals. Project managers are equipped to deal with a wide variety of different problems and provide solutions in most professional's fields, making their skillset highly demanded by

workforce. The degree was designed to guide students to become effective project managers, equipped with technical skills and leadership skills necessary to deliver successful projects in their area of passion. A project management education coordinates the Project Management Body of Knowledge (PMBOK) areas with a student's area of emphasis, minor, double major, or transfer degree. The degree was built on one fundamental principle—regardless of industry, regardless of discipline or job title, everyone needs to get things done. Students who successfully complete the required project management courses offered in this program are prepared to take the globally recognized CAPM certification through the Project Management Institute. We are one of the few Bachelor of Science in Project Management who are accredited by the Project Management Institute (PMI) and AACSB. For more information, see PMI's Accreditation Site.

**Project Management Career Information**
Job opportunities in project management include project analyst, risk manager, helpdesk manager, project consultant, project manager, business development, IT project manager, IT director, operations manager, project coordinator, software manager, and non-profit manager.

Job opportunities in project management include project analyst, risk manager, helpdesk manager, project consultant, project manager, business development, IT project manager, IT director, operations manager, project coordinator, software manager, and non-profit manager.

**Global Supply Chain Management Mission Statement:**
To transform lives by providing rigorous and applied education to our students.

**Global Supply Chain Management Program Overview**

Our AACSB accredited Global Supply Chain Management program provides education for those interested in planning and implementing successful supply chain strategies both domestically and internationally. The degree is intended to create globally minded citizens, who can manage the distribution of goods and services not only domestically, but also across the world. Students who graduate from global supply chain can travel the world or stay local. Supply chain is necessary for both local, national, and global movement of goods and services.

Global supply chain managers are in demand in a variety of fields ranging from manufacturing, distribution, business, healthcare, non-profit, and government. A "supply chain" refers to the process a company takes to transform raw material components into a final product that is delivered to customers. It also refers to the process of taking a service (like a help desk) and managing the steps the customer experiences while working with the service team. Typically, supply chain management has five stages: plan, make, source, deliver and return. Every stage of the process involves professional skills critical to success, from marketing and logistics to data management and warehousing.

Students who graduate from this program will find multiple rewarding career opportunities open to them in the areas of logistics, e-commerce, purchasing, manufacturing, and international business.

**Global Supply Chain Management Career Information**

Global Supply Chain Management, also known as the value chain or logistics network management, consists of a network of suppliers, manufacturers, warehouses, distribution centers, wholesalers and retailers. It also includes a variety of specialized facilitating systems, such as transportation and information systems. The Global Supply Chain Management option develops an understanding of the design, control and operation of supply chains.

**Careers**

- Strategic partners/vendor manager
- Supply chain manager
- Global sourcing manager
- Senior buyers

- Warehouse manager/buyer
- Director of operations
- Global supply chain analyst
- Analytics QA engineer
- International trade and border specialist

In today's complex global business world, an organization's overall success boils down to the efficiency and effectiveness of its supply chain. Competitive strength relies both on a firm's products and the processes that provide products to customers. Effective supply chain management enhances productivity and performance with the strategic combination of people, systems and technology to successfully compete in the global marketplace.

How can a $1.3 trillion industry, getting bigger every year, be hidden in plain sight? Easy. The vast U.S. logistics business, which delivers 48 million tons of freight (worth about $48 billion) daily and already employs roughly 6 million people, operates mostly behind the scenes. "When you order something from, say, Amazon, you know it arrives on your doorstep in two days, but most people don't think about how," observes George Prest, CEO of logistics trade group Material Handling Industry (MHI). He adds that the field gets overlooked by new grads in particular, who think of supply chain work - if they think of it at all - as a "guy driving a forklift in a dusty old factory." (Fortune, 2017)

## BS Degree in Global Supply Chain Management

The major in Global Supply Chain Management provides education for those interested in planning and implementing successful supply chain strategies both domestically and internationally. The degree is intended to create globally minded citizens who can manage the distribution of goods and services not only domestically, but also across the world. Students who graduate from this major can travel the world or stay local. Supply chain is necessary for both local, national, and global movement of goods and services. Completion of 120 credits is required for this degree which includes the Liberal Arts and Sciences Curriculum.

Student Learning Outcomes

- Identify the components of global supply chains (e.g., sourcing, manufacturing and production, distribution, sales and customer service) and issues related to the management of global supply chains.
- Compare and contrast the strengths and weaknesses, of different business operating models.
- Explain how organizations operate and adapt to cultural and regional norms, address border issues, and comply with local, regional, and international laws governing the conduct of business.
- Explain the connections between disciplines related to GSCM (e.g., Operations, Marketing, Sales, Information Systems, International Business, etc.).
- Identify and explain current and future career opportunities within GSCM.

**Program Delivery Mode**
Online Plus: offered entirely online with face-to-face options available for some/all sections

**Designated Writing Intensive Course for Major**
OM 380 Methods Improvement (3) or PMGT 385 Process Leadership (3)

**Core Requirements (39 credits)**
ACCT 230 Principles of Accounting I (3)
MGMT 260 Principles of Management (3)
MGMT 371 Introduction to Business Analytics (3)
MGMT 380 Operations Management (3)
MGMT 419 Supply Chain Management (3)
MKTG 270 Principles of Marketing (3)
OM 380 Methods Improvement (WI) (3)
OM 395 Computer Applications for Technologists (3)
OM 470 Purchasing and Sourcing Management (3)
OM 472 Logistics Management and Network Design (3)
OM 485 Production Inventory Management (3)
PMGT 300 Project Management and Scheduling (3)
PMGT 385 Process Leadership (WI) (3)

**Related Requirements (6 credits)**
MATH 234 Probability and Statistics (LASC 4) (3)
ECON 202 Microeconomics (LASC 5) (3)

**Restricted Electives (12 credits)**
FINC 340 Financial Management (3) **OR**
OM 483 Cost Analysis (3)
MKTG 444 International Marketing (3) **OR**
PMGT 301 Introduction to CRM (3)
MGMT 458 International Management (3) **OR**
PMGT 401 CRM Consulting (3)
BUS 480 Dragon Consulting (3) **OR**
OM 469 Internship (3)

## BS Degree in Construction Management

To receive the B.S. Degree in Construction Management, the student must meet the minimum university requirements and specific requirements for the program. Completion of 120 credits is required for this degree which includes the Liberal Arts and Sciences Curriculum, CM requirements (53 credits), Business (9 credits) as well as 40 upper division credits (300/400 level coursework). Students must earn a grade of C- or higher in all core courses required for the program.

Student Learning Outcomes

Upon graduation from an accredited ACCE 4-year program a graduate should be able to:

- Create written communications appropriate to the construction discipline.
- Create oral presentations appropriate to the construction discipline.
- Create a construction project safety plan.
- Create construction project cost estimates.
- Create construction project schedules.
- Analyze professional decisions based on ethical principles.
- Analyze methods, materials, and equipment used to construct projects.
- Apply electronic-based technology to manage the construction process.
- Apply basic surveying techniques for construction layout and control.
- Understand different methods of project delivery and the roles and responsibilities of all constituencies involved in the design and construction process.
- Understand construction accounting and cost control.
- Understand construction quality assurance and control.
- Understand construction project control processes.
- Understand the legal implications of contract, common, and regulatory law to manage a construction project.
- Understand the basic principles of sustainable construction.
- Understand the basic principles of structural behavior.
- Understand the basic principles of HVAC, electrical and plumbing systems.

**Program Delivery Mode**
Online Plus: offered entirely online with face-to-face options available for some/all sections

**Designated Writing Intensive Course for Major**
CM 327 Sustainability in the Built Environment

**Core Requirements (50 credits)**
All majors must earn three (3) credits from CM 469 Internship. Students must earn a grade of C- or higher in all required courses.

CM 200 Construction Surveying (1)
CM 200L Construction Surveying Lab (1)
CM 205 Professional Growth Seminar I (1)
CM 216 Construction Graphics (3)
CM 220 Commercial Building Methods and Materials (3)
CM 230 Estimating I: Quantity Survey (3)
CM 254 Mechanical/Electrical Systems (3)
CM 327 Sustainability in the Built Environment (3)
CM 335 Estimating II-Pricing and Productivity (3)
CM 340 Planning and Scheduling (3)
CM 350 Structural Analysis (3)
CM 365 Construction Safety (3)
CM 370 Construction Documents and Specifications (3)
CM 425 Equipment Productivity and Analysis (3)
CM 434 Construction Cost Analysis (3)

CM 460 Project Administration (3)
CM 469 Internship (3)
CM 470 Construction Law (2)
CM 492 Capstone Experience (3)

**Related Requirements (33 credits)**
ACCT 230 Principles of Accounting I (3)
ACCT 280 Legal Environment of Business (3)
COMM 100 Speech Communication (3)
ECON 202 Principles of Economics I: Micro (3) **OR**
ECON 204 Principles of Economics II: Macro (3)
ENGL 101 English Composition I (3)
ENGL 201 English Composition II (3) **OR**
ENGL 202 English Composition and Literature (3)
**OR**
ENGL 387 Technical Report Writing (3)
MATH 142 Pre-Calculus (5)
MGMT 260 Principles of Management (3)

Physical Science Elective I (3/4 credits - must include a lab experience)
AST 100 Introduction to a Universe of Astronomy (3)
CHEM 110 Fundamentals of Chemistry and Lab (4)
CHEM 150/CHEM 150L General Chemistry I and Lab (4)
GEOS 115 Physical Geology (4)
GEOS 116 Historical Geology (3)
PHYS 160 Physics I w/Algebra and Lab (4)

Physical Science Elective II (3/4 credits – may or may not include lab experience)
AST 100 Introduction to a Universe of Astronomy (3)
CHEM 102 – Environmental Chemistry (3)
CHEM 110 Fundamentals of Chemistry and Lab (4)
CHEM 150/CHEM 150L General Chemistry I and Lab (4)
GEOS 115 Physical Geology and Lab (4)
GEOS 116 Historical Geology (3)
PHYS 160 Physics I w/Algebra and Lab (4)

**Restricted Electives (3 credits)**
CM 445 Contractor Quality Management or CM 325 Soil Mechanics (3)

## BS Degree in Operations Management

This degree is intended for technical minds to learn how to lead projects, people or processes in a variety of industries and in a variety of roles. The degree teaches you lean fundamentals, quality management, production management, service flow management, six sigma principles, project management, and the fundamental leadership/supervision. It focuses on the flow of goods and services throughout the company whether it be making products, offering services, managing inventory, and many more. The degree is designed for people who are busy, need accelerated classes, flexible delivery options, and real world and industry based courses. Completion of 120 credits is required for this degree which includes the Liberal Arts and Sciences Curriculum.

Student Learning Outcomes

**Operations Management General Program Outcomes**

- Apply the fundamentals of leading and managing people, projects and self globally in technical manufacturing and service environments.
- Apply lean, quality, process, analytical, inventory management and technology in an operations management service, production, and other business and nonprofit environments.
- Earn an accredited two year degree in a technical field as defined by ATMAE.
- Utilize the operations management education to advance their education, expand their job opportunities, contribute positively to communities, and enhance their career path.

**Technical Management Emphasis Student Learning Outcomes**

- The graduate will be able to apply oral, written, graphic, and listening skills and be able to contribute and facilitate team efforts.
- The graduate will be able to demonstrate appropriate computer skills through the use of word processing, databases, and spreadsheets applications and electronic data searches.

- The graduate will be able to apply mathematical and physical principles to business and industrial applications and implement efficient scientific and technological solutions to industrial problems individually and in a team setting.
- The graduate will be assumed to have gained this competency at their transferring institution by graduating from an accredited institution in an articulated technical oriented program.
- The graduate will be able to demonstrate skills for determining the cost advantage of different processes and performing cost estimates. The student will also understand and be able to document the costs and benefits associated with production concepts such as Just-In-Time and Total Quality Management.
- The graduate will understand the implication of TQM on the local and national economy, methods and procedures for planning, organizing and controlling for quality, statistical methods for quality control, and the application of quality tools and techniques for designing products and services.
- The graduate will understand the varied needs for inventory, technology in different production environments, the effect of inventory on business techniques for scheduling materials, workers, machinery and space, and the Theory of Constraints and its usage for production scheduling.
- The graduate will be able to apply skills of organizing and managing resources to deliver the temporary or one-time endeavor project with a defined scope, time and cost constraints. The graduate will also understand the changing workplace structure and be a positive contributor.
- The graduate will be able to apply appropriate management skills, demonstrate ethical actions and conduct, be aware of the personal value for involvement and contribution to the community and knowledge of industry expectations.
- The graduate will exhibit an understanding and acceptance of human concern for ethical treatment of all persons. Additionally, graduates will have a realistic understanding of the internationalization of business and industry.

**Construction Technology Emphasis Student Learning Outcomes**

- The graduate will be able to create oral and written communications appropriate to the construction industry.
- The graduate will be able to create and utilize electronic-based technology to manage the construction process.
- The graduate will be able to create construction project cost estimates and schedules.
- The graduate will be able to create construction project specific safety plan.
- The graduate will be able to demonstrate skills for planning and management of construction processes.
- The graduate will understand construction quality assurance and quality control.
- The graduate will understand construction accounting and cost control.

**Program Delivery Mode**
Online Plus: offered entirely online with face-to-face options available for some/all sections

**Designated Writing Intensive Course for Major**
OM 380 Methods Improvement (3)

**<u>Core Requirements (24 credits)</u>**
**Students in this major will transfer in 30 technical credits along with a technical diploma, AAS, or AS degree and complete the core requirements. Students are required to choose an emphasis in either Technical Management or Construction Technology.**

OM 380 Methods Improvement (3)
OM 393 Occupational Safety and Health (3) **or**
CM 365 Construction Safety (3)
OM 395 Computer Applications for Technologists (3)
OM 469 Internship (3) **or**
CM 469 Internship (3)
ACCT 230 Principles of Accounting I (3)
ECON 202 Principles of Economics I: Micro (3)
MATH 127 College Algebra (3)
MATH 234 Introduction to Probability and Statistics (3)

**Technical Management Emphasis (21 credits)**
OM 470 Purchasing & Sourcing Management (3)
OM 482 Quality Management (3)
OM 483 Cost Analysis (3)
OM 485 Production Inventory Management (3)
PMGT 300 Project Management and Scheduling (3)
PMGT 385 Process Leadership (3)
MGMT 260 Principles of Management (3)

**Construction Technology Emphasis (21 credits)**
CM 230 Estimating I: Quantity Survey (3)
CM 370 Construction Documents & Specifications (3)
CM 335 Estimating II: Pricing & Productivity (3)
CM 340 Planning and Scheduling (3)
CM 434 Construction Cost Analysis (3)
CM 445 Contractor Quality Management (3)
CM 460 Project Administration (3)

## BS Degree in Project Management

This major is designed for individuals who like to lead projects, get things done, and make an impact with their work. Project managers are needed in all industries and across all professions. It is a degree designed to be flexible and allows you to take up to 30 credits in your area of interest and transfer in your 2-year AS or AAS degree. It is also a great fit for AA transfers and incoming freshmen. The degree can be paired with an area of emphasis, a minor or even a double major. Project management is a particularly great fit for business, marketing, computer science, human resources, and medical professionals. Project managers are equipped to deal with a wide variety of different problems and provide solutions in most professional's fields, making their skill set highly demanded by workforce. The degree is designed to guide students to become effective project managers, equipped with technical skills and leadership skills necessary to deliver successful projects in their area of passion. A project management education coordinates the Project Management Body of Knowledge (PMBOK) areas with a student's area of emphasis, minor, double major, or transfer degree. The degree was built on one fundamental principle - regardless of industry, regardless of discipline or job title, everyone needs to get things done. Students who successfully complete the required project management courses offered in this program are prepared to take the globally recognized CAPM certification through the Project Management Institute (PMI). Completion of 120 credits is required for this degree which includes the Liberal Arts and Sciences Curriculum.

Student Learning Outcomes

**Project Management General Learning Outcomes**

Technical Expertise

- Understand the fundamentals of the PMBOK knowledge areas, process groups and tools in predictive and agile projects to meet the competitive needs of global, regional and local businesses.
- Examine and define process improvement theories and applications in a project context.

Behavior Expertise

- Assess and create positive personal and ethical leadership, communication and team management skills, and apply to stakeholder engagement and project teams globally.

Strategic Awareness

- Assess the strategic, business, cultural and operational drivers required to inform decisions and deliver sustained

competitive advantage in the project management context.
- Apply the fundamentals of the project management interdisciplinary degree to enhance job opportunities and career advancement.

**Project Management Student Learning Outcomes**

Technical Expertise

- Create project management plans using appropriate techniques and tools per the PMBOK Guide.
- Examine the five project development process groups and knowledge areas within the PMBOK Guide.
- Prioritize project needs with regard to scope, resources, cost, schedules, procurement, and risks.
- Identify tools, principles, and techniques of continuous process improvement.
- Create a proactive risk management and quality plan and develop contingency plans.

Behavioral Behavior

- Examine the fundamentals of effective communication, team management, and leadership skills with a project team and stakeholders.
- Assess ethical and personal leadership style and apply to the needs of the project team and stakeholders.

Strategic Behavior

- Discover how project managers align organizational strategy, culture and operational drivers to inform decisions to satisfy project requirements.
- Apply fundamental business, lean and quality processes to the multidisciplinary, industry and global project environment.
- Explain management and integration of organizational programs and project portfolios.

**Program Delivery Mode**
Online Plus: offered entirely online with face-to-face options available for some/all sections

**Designated Writing Intensive Course for Major**
OM 380 Methods Improvements (3) or PMGT 385 Process Leadership (3)

**Core Requirements (48 credits)**
ACCT 230 Principles of Accounting I (3)
MGMT 260 Principles of Management (3)
MKTG 270 Principles of Marketing (3)
OM 380 Methods Improvements (3)
OM 395 Computer Applications for Technologists (3)
OM 470 Purchasing & Sourcing Management (3)
OM 482 Quality Management (3)
OM 483 Cost Analysis (3)
PMGT 300 Project Management and Scheduling (3)
PMGT 301 Introduction to CRM (3) **OR** PMGT 433 Dale Carnegie Skills for Success (3)
PMGT 385 Process Leadership (3)
PMGT 400 Agile Project Management (3)
PMGT 401 CRM Consulting (3) **OR** OM 472 Logistics Management and Network Design (3)
PMGT 456/MGMT 456 Project Management in Business (3)
PMGT 492 Project Management Capstone (3)
OM 469 Internship (3) **OR** BUS 480 Dragon Consulting (3)

**Related Requirement (3 credits)**
ECON 202 Microeconomics (3)

## Minor in Construction Management

21 credits

A Minor in Construction Management allows to students to gain fundamental knowledge of commercial building cost estimating, critical path method scheduling, and construction project management. Students can pursue a career in construction management by earning a CM minor either face-to-face or online. The CM Degree is nationally accredited by the American Council for Construction Education (ACCE) which is globally recognized.

In addition to the listed courses, students must

earn at least three credits in a Construction Management elective course. Students must choose their electives in consultation with their faculty advisor.

CM 220 Commercial Building Methods and Materials (3)
CM 230 Estimating I: Quantity Survey (3)
CM 335 Estimating II: Pricing and Productivity (3)
CM 340 Planning and Scheduling (3)
CM 460 Project Administration (3)
ACCT 230 Principles of Accounting I **or**
MGMT 260 Principles of Management (3)
CM Elective (3)

## Minor in Global Supply Chain Management

21 credits

The interdisciplinary minor (collaboration between Professional Management Dept. and Paseka School of Business) in Global Supply Chain Management program provides students with an understanding of the important role of supply chain management in domestic and international business. It is a good choice for project management, business, and IT majors.

MATH 234 Introduction to Probability and Statistics (3)
MGMT 260 Principles of Management (3)
MGMT 380 Operations Management (3)
MGMT 419 Supply Chain Management (3)
OM 470 Purchasing and Sourcing Management (3)
OM 472 Logistics Management and Network Design (3)
OM 485 Production Inventory Management (3)

## Minor in Operations Management

The Operations Management minor will provide students the opportunity to enhance their major with knowledge in operational design and control, including forecasting, planning and quality assurance. The Operations Management minor can position graduates for positions in areas such as logistics, quality assurance, process improvement, inventory, project management, and more. The minor is a cross-disciplinary and fits with majors from business, project management, computer science, management, marketing, accounting, finance, and many more.

**Core Requirements (15 credits)**
OM 380 Methods Improvement (3)
OM 393 Occupational Safety and Health (3)
OM 482 Quality Management (3)
OM 483 Cost Analysis (3)
OM 485 Production Inventory Management (3)

**Restricted Electives (3 credits)**
Must choose one elective course for 3 credits
MGMT 260 Principles of Management (3)
MGMT 371 Introduction to Business Analytics (3)
MGMT 380 Operations Management (3)
PMGT 300 Project Management and Scheduling (3)
PMGT 385 Process Leadership (3)
OM 395 Computer Applications for Technologists (3)

## Minor in Project Management

21 credits

A minor in project management compliments just about any degree and the students learn valuable skills in meeting deadlines, managing stakeholders, understanding risk, and creating business cases and scope documents. Gain a competitive edge over someone in your discipline who has a degree and show your employer you can create results. Students who successfully complete the required project management courses offered in this program are prepared to take the globally recognized CAPM certification through the Project Management Institute (PMI).

PMGT 300 Project Management and Scheduling (3)
PMGT 385 Process Leadership (3)
MGMT 260 Principles of Management (3)
OM 395 Computer Applications for Technologists (3)
PMGT 400 Agile Project Management (3)
MGMT 456/PMGT 456 Project Management in Business (3)
PMGT 492 Project Management Capstone (3)

## Minor in Professional Selling

18 credits

The purpose of the Professional Selling Minor is to foster a productive and collaborative learning environment to develop knowledge and skills in the management of customer relationships, equip students with the skills, ethics, and attitudes necessary to be an effective customer relationship professional in a variety of arenas, and to provide opportunities for students to exercise and develop the knowledge and skills necessary to function effectively and efficiently through their ability to apply customer relationship skills.

**Admission Requirements**
Must have 30 earned credits - the level of the coursework is appropriate for sophomores and above.

**Core Requirements (12 credits)**
COMM 201 Interpersonal Communication (3)
MKTG 270 Principles of Marketing (3) **OR**
ENTR 232 Entrepreneurial Marketing (3)
OM 201 Introduction to Professional Selling (1)
OM 401 Professional Selling Practicum (2)
PMGT 301 Introduction to CRM (3)

**Restricted Electives (6 credits)**
COMM 285 Intercultural Communication (3)
COMM 301 Business and Professional Communication (3)
COMM 352 Social Media Campaigns (3)
COMM 366 Personal Selling (3) **OR**
MKTG 330 Personal Selling (3)
OM 395 Computer Applications for Technologists (3)
PMGT 401 CRM Consulting (3)

## Certificate in Customer Relationship Management

9 credits

This certificate will provide students with a broad range of perspectives and background related to a career in CRM software consulting, CRM strategy consulting, CRM project management, or managing internal CRM initiatives in an organization. The certificate consists of three courses: Project Management, CRM Consulting, and Introduction to CRM Software.

Student Learning Outcomes

- Apply a project management methodology: define, plan, execute and close.
- Assess project contributions to business strategy, purpose and plans.
- Build the project team selection processes.
- Create a preliminary business case for project.
- Define and analyze project constraints and assumptions.
- Define the fundamentals of a basic PM methodology.
- Develop and assess a project plan in software that has baseline, resources, constraints, and budgets, including WBS and Gantt charts.
- Develop plans to manage various stakeholders.
- Explain the role of a PM in different industries.
- Name the different career professions for PM's.
- Recall basic project terminology.
- Identify and explain the core, strategic areas of customer relationship management.
- Demonstrate how to leverage CRM software tools to manage and analyze identified CRM strategies within a business or organization.
- Explain how different types of customers impact an overall CRM strategy.
- Utilize and demonstrate their ability to use the Sales, Marketing, and Customer Care modules within Microsoft Dynamics CRM.
- Be prepared to take the Microsoft Dynamics CRM Application Exam if they choose.
- Identify traits of an effective consultant
- Identify and articulate customer and client needs
- Identify, plan, and communicate solutions based upon customer and client needs

- Define and explain the customer life-cycle
- Demonstrate understanding of how customer engagement factors into the consulting process
- Identify the traits of an engaged customer
- Plan and execute upon customer engagement strategies
- Synthesize real-life case studies of customer requirements and identify potential solutions.

Successful completion of the following courses:

PMGT 300 Project Management and Scheduling (3)
PMGT 401 Customer Relationship Management Consulting (3)
PMGT 301 Introduction to CRM (3)

## Certificate in Lean - Quality Management

9 credits

The Lean Certificate will provide students the opportunity to enhance their knowledge in the following aspects of lean methodology; 1- Methods Improvement 2- Quality Issues 3- Process Leadership.
This certificate can position professionals for positions in areas such as quality assurance, process improvement, project management, and more. The certificate is cross-disciplinary and fits with majors from business, project management, computer science, management, marketing, accounting, finance, and many more. This lean certificate is intended for NON operations management majors.

OM 380 Methods Improvement (3)
OM 482 Quality Management (3)
PMGT 385 Process Leadership (3)

## Certificate in Project Management

9 credits

Businesses, non-profit, education, and organizations are all recognizing the value of project management beyond its traditional use in information technology. This certificate is designed for business and non-business employees who would like to add the project management skill to their respective discipline. The certificate will focus on the methodology, software, stakeholder management, risk, liability, project leadership, and change management—all vital parts of being a successful project manager in your area of expertise. Regardless of industry, institution or degree specialization, Project Management is a core competency that will teach employees how to manage projects within their discipline with a solid methodology to ensure their projects are on time, within budget, and of high quality. The series of courses in the certificate (if employee is interested) will prepare them to take CAPM exam from PMI.org.
This certificate is intended for non-project management majors and pairs well with business, computer science, and non-business degrees. All industries and roles need employees to be able to manage products.

Student Learning Outcomes

- Apply a fundamental project management methodology.
- Construct a project plan in Microsoft Project.
- Analyze the risk, liability and cost for projects.
- Explain the fundamentals of people leadership on a project.
- Prepare for the CAPM or PMI certification.

PMGT 300 Introduction to Project Management and Scheduling (3)
PMGT 400 Agile Project Management (3) **OR**
MGMT 456 Project Management in Business (3)
PMGT 492 Project Management Capstone (3)

## School of Communication and Journalism

**MacLean Hall 260, (218) 477-2983**
**Chair:** Denise Gorsline
**Faculty:** Jason Anderson, Kay Beckermann, Rebecca Gardner, Denise Gorsline, Theresa Hest, Anthony Ocana, Aaron Quanbeck, Chris Walker

*The **School of Communication and Journalism** offers majors in Integrated Advertising & Public Relations, Broadcast Journalism, Communication Studies, English & Mass Communications,*

*Multimedia Journalism, Photojournalism, and Digital Media Management. Minors are offered in Broadcast Journalism, Communication Studies, Integrated Advertising & Public Relations, Mass Communications, Media Analysis, Photojournalism, and Sports Communications.*

Leaders in the world today have clear visions for the future, and they know how to transform those visions into reality. Communication is at the heart of that transformation. Effective leaders interpret and evaluate messages, and then create clear and intentional messages to initiate and facilitate change. A leader's communication contributes to collaborative relationships and the achievement of common goals.

Each of the majors offered in the School of Communication and Journalism balances the breadth of the liberal arts and sciences curriculum with the depth of a program specific curriculum to provide a student with a well-rounded education. Graduates complete a total of 120 credits with a minimum of 40 credits in coursework at the 300 to 400 levels. Distribution of the total credits needed to complete the baccalaureate degree include 42 credits in the liberal arts and sciences curriculum; 39 to 69 credits in a selected major; and the remaining credits earned through internship credits, restricted and/or unrestricted elective credits.

Each of the professional majors include coursework designed to enhance a student's verbal and visual storytelling skills, as well as the technical skills needed to effectively share a message(s) using multimedia platforms. Additionally, each of the professional majors includes theory-based coursework that addresses contemporary issues involving rhetorical theories of communication, principles of effective communication, communication ethics, and communication law. The goal of each major is to prepare the graduate for a professional communication career.

Additionally, the major in Communication Studies is a professional major whose goal is to provide career preparation designed to be applicable in numerous industries as well as providing the research background needed for advanced degree work. Within the Communication Studies major, students may choose one of the following emphases: 1) Event Planning and Promotion or 2) Communication Training and Development.

Similarly, with its liberal arts base, the dual major in English and Mass Communication provides career preparation applicable in numerous industries, and the publishing industry in particular, as well as providing the research background needed for advanced degree work.

**Mission Statement**
The primary mission of the School of Communication and Journalism is to empower students to become effective communicators in the modern era. Through experiential learning activities, we prepare storytellers who can create, refine, evaluate, and distribute messages that have an impact on the world around them.

**Vision Statement**
The School of Communication and Journalism aspires to be a leader in preparing communicators to influence their communities and the world. We strive to become the top choice for students wanting to apply classroom knowledge and emerging technologies to current professional practices. Toward this end, we will further develop our network of professional communicators, regionally and nationally, in order to best prepare students to contribute immediately when they graduate.

**Overarching Learning Outcomes**
Overarching learning outcomes for the programs involved in the School of Communication and Journalism are, by the very nature of the discipline, rhetorical in their roots. While each program major identifies learning outcomes based upon its own professional standards, practices, and evolving trends in the industries and careers served by the program major, all still find their roots in classical rhetorical communication theory. Each of the School's program majors is inclusive of the following learning outcomes:

- To develop an ability to critically analyze a communication situation to discover its salient issues for purposes of developing an appropriate response.
- To develop an ability to identify and evidence responsive talking points that provide a critical response for the public(s) involved in the communication situation.
- To develop an ability to effectively partition the response as a means of maximizing the impact of the messaging on those involved in the communication situation.
- To develop an ability to strategically select the media platform(s) to be employed as the communication vehicle(s) to engage the public(s) involved in the communication situation.
- To develop an ability to effectively employ the use of visual and verbal symbols, motion and sound as a means of adding an appropriate level of clarity and emphasis to one's messaging.
- To develop the skill set(s) needed to effectively deliver one's message to those involved in the communication situation.
- To develop an understanding and commitment to upholding the ethical standards of communication that is a part of the situation being addressed.
- To demonstrate an ability to work collaboratively as a member of a group or team.
- To demonstrate the ability to create publication documents/productions that meet industry-based standards.

## BS Degree in Broadcast Journalism

The major in Broadcast Journalism balances the breadth of the liberal arts and sciences curriculum with the depth of a professional curriculum in broadcast journalism, along with a choice of unrestricted electives to provide a well-rounded educational experience. Majors must complete 120 credits with a minimum of 40 credits at the 300-400 levels. Majors will complete LASC, 45 credits in the broadcast journalism program, and the remaining credits will be available as unrestricted electives. Internships, while not formally required, are strongly encouraged to gain additional insight into the journalism profession.

In addition to the overarching learning outcomes, nuanced learning outcomes of the broadcast journalism major are:

- Demonstrate an awareness and understanding of the principles of broadcast journalism.
- Demonstrate an awareness and understanding of the ethical standards of the journalism profession.
- Investigate, write, report, photograph, edit and produce news for television.
- Demonstrate an ability to work collaboratively as a member of a team.
- Develop and produce a television documentary (traditionally in fall semester) that meets professional industry standards.
- Develop and produce a weekly television news program (traditionally in spring semester), *Campus News*, that meets professional industry standards.
- Demonstrate an entry-level professional competency through the successful completion of an internship or other professional field experience.

**Program Delivery Mode**
Land plus: face-to-face where some online courses may be available or required

**Designated Writing Intensive Course for Major**
COMM 309 Reporting (3)

**Core Requirements (45 credits)**
Students are required to enroll in COMM 344 twice, concurrently with COMM 342 and with COMM 343. COMM 342 and COMM 343 may not be taken together.

COMM 101 Introduction to Mass Media (3)
COMM 210 Media Writing (3)
COMM 220 Layout and Typography I (3)
COMM 230 Photography (3)
COMM 285 Intercultural Communication (3)

COMM 308 Broadcast Journalism (3)
COMM 309 Reporting (3)
COMM 341 TV News Writing (3)
COMM 342 TV News Reporting (3)
COMM 343 TV News Photography (3)
COMM 344 TV News Video Editing (3) *must be taken twice for 6 credits
COMM 400 Media Ethics and Issues (3)
COMM 403 Communications Law (3)
COMM 440 Broadcast Documentary (3)

## BA Degree in Communication Studies

Communication is at the core of one's work, community, and personal relationships. Our graduates are prepared for successful careers in a variety of industries including: health care, business, nonprofits, helping professions, sales, technology, and media. Communication Studies has roots in both the humanities and social sciences. The field began with Aristotle's examination of the art of logic, argument, and persuasion. Over time, the discipline has evolved to examine human interaction and behavior using social scientific approaches. Today, researchers study human communication with the goal of improving it. They focus on message production, message processing, and message effects in a variety of contexts, including interpersonal, group, intercultural, family, health, and social media, to name just a few. Students may complete the major as designed, or they may select a career-focused emphasis in 1) Event Planning and Promotion or 2) Communication Training and Development. The major includes 51 credits (core and elective) in addition to completion of LASC, leaving 27 elective credits required for graduation. Many students use those credits to complete a related minor, such as in Human Resources, Project Management, or Integrated Advertising and Public Relations. Completion of 120 credits is required for this degree which includes the Liberal Arts and Sciences Curriculum.

Student Learning Outcomes

- Develop an ability to critically analyze a communication to discover its salient issues for purposes of developing an appropriate response.
- Develop an ability to identify and evidence responsive talking points that provide a critical response for the public (s) involved in the communication situation.
- Develop an ability to effectively partition the response as a means of maximizing the impact of the messaging on those involved in the communication situation.
- Develop an ability to strategically select the media platform(s) to be employed as a communication vehicle(s) to engage the public(s) involved in the communication situation.
- Develop an ability to effectively employ the use of visual and verbal symbols, motion and sound as a means of adding an appropriate level of clarity and emphasis to one's messaging.
- Develop the skill set(s) needed to effectively deliver one's message to those involved in the communication situation.
- Develop an understanding and commitment to upholding the ethical standards of communication that is a part of the situation being addressed.

Inherent to the above stated objectives are demonstrating a foundational knowledge of communication research methods and the role of research in the creation of knowledge; recognizing, diagnosing, and responding to communication situations using appropriate communication theories and concepts; effectively presenting communication messages in a variety of contexts and situations; to analyzing communication messages in a variety of cultures, contexts and situations; and to demonstrating the knowledge to successfully manage group environments and / or interpersonal relationships.

**Program Delivery Mode**
Land plus: face-to-face where some online courses may be available or required

**Designated Writing Intensive Course for Major**
COMM 301 Business and Professional Communication (3) OR COMM 310 Rhetorical Theory and Criticism (3)

**Core Requirements (30 credits)**
COMM 110 Introduction to Communication Studies (3)
COMM 201 Interpersonal Communication (3)
COMM 211 Group and Team Communication (3)
COMM 285 Intercultural Communication (3)
COMM 301 Business and Professional Communication (3)
COMM 310 Rhetorical Theory and Criticism (3) **OR**
COMM 410 Rhetoric of Popular Culture (3)
COMM 311 Principles of Persuasion (3)
COMM 315 Communication Theory (3)
COMM 319 Communication Research Methods (3)
COMM 496 Communication Studies Senior Seminar (3) *Must earn grade of C- or above.

**Restricted Electives (21 credits)**
21 credits of unrestricted electives drawn from any COMM or LEAD rubric courses, and may include COMM 100.

**Event Planning and Promotion Emphasis (21 credits)**
Required core of 30 credits, plus 12 credits of unrestricted electives drawn from courses carrying a COMM or LEAD rubric, as well as the following 9 credits of restricted credits: COMM 383 Event Planning, LEAD 301 Introduction to Leadership, and either COMM 210 Media Writing or COMM 307 Writing for Public Relations.

**Communication Training and Development (21 credits)**
Required core of 30 credits, plus 12 credits of unrestricted electives drawn from courses carrying a COMM or LEAD rubric, as well as the following 9 credits of restricted credits: COMM 317 Training and Development, COMM 401 Organizational Communication, and PMGT 385 Process Leadership.

## BS Degree in Digital Media Management

The Bachelor of Science degree in Digital Media Management covers not only technical expertise, but strategic planning and a firm foundation in operations, marketing, public relations, communication, data analysis, business, and project management. Having a background in all of these key areas of an organization puts students in a position to pursue a variety of professional roles. Professional roles that a student with this major could fill would include digital or social media coordinator/specialist, social media strategist/consultant, communication director/manager/specialist, or marketing assistant/ manager/coordinator. Obtaining a four-year B.S. degree will help you increase your earning potential, expand your career options, and allow you to utilize your technical background while becoming a leader in an industry that impacts how consumers make buying decisions, how businesses manage their customers, and how we relate to one another online. Completion of 120 credits and the Liberal Science and Arts Curriculum required for graduation.

Student Learning Outcomes
Upon successful completion of this degree, graduates will be able to lead:

- Strategy: Formulate and defend key digital strategies that align with organizational performance such as brand values, mission, and business goals to adapt to industry and market needs and wants.
- Tool Adoption and Implementation: Compare, contrast, and select appropriate digital media and marketing platforms, automation tools and applications in varied business or organizational contexts.
- Operation Management: Adopt operational management concepts (such as process development and change management, quality management, and risk management) to build effective digital engagement and communication strategies.
- Project Management: Develop and manage processes for effective collaboration, tool implementation,

usage, and analysis as well as process, strategy, or tool changes.

- Analysis and Assessment: Quantitatively and qualitatively formulate and evaluate key performance indicators and trends related to an organization's digital footprint. Apply relevant practices for integrated marketing communications and analytics to transform data into actionable information that supports optimum organizational performance.

**Program Delivery Mode**
Online Plus: offered entirely online with face-to-face options available for some/all sections

**Designated Writing Intensive Course for Major**
PMGT 385 Process Leadership (3)

**Core Requirements (47 credits)**
COMM 423/MKTG 423 Marketing Communications (3)
COMM 283 Advertising and Public Relations Principles (3)
COMM 352 Social Media Campaigns (3)
COMM 354 Social Media Metrics (3)
COMM 400 Mass Media Ethics and Issues (3) **or**
COMM 403 Communications Law (3)
GID 250 Introduction to Interactive Media (4)
GID 230 Introduction to Digital Design (4)
MGMT 260 Principles of Management (3)
MKTG 270 Principles of Marketing (3)
MKTG 421 Consumer Behavior (3)
MKTG 325 Digital Marketing (3)
PMGT 385 Process Leadership (3)
PMGT 401 CRM Consulting (3)
PMGT 301 Introduction to CRM (3)
PMGT 300 Project Management and Scheduling (3)

**Graphics Emphasis (12 credits)**
GID 350 Intermediate Interactive Media (4)
GID 330 Intermediate Digital Design (4)
GID 210 Introduction to Graphic Design (4)

**Marketing Emphasis (15 credits)**
MKTG 311 Marketing Management (3)
MKTG 444 International Marketing (3)
MKTG 451 Marketing Research I (3) **OR**
MKTG 433 Predictive Analytics (3)
MATH 127 College Algebra (3)
MATH 234 Introduction to Probability & Statistics (3)

**Project Management Emphasis (9 credits)**
PMGT 400 Agile Project Management (3)
PMGT 492 Project Management Capstone (3)
PMGT 456 Project Management in Business (3)

**Advertising & Public Relations Emphasis (9 credits)**
COMM 306 Advertising and Public Relations Copywriting (3)
COMM 365 Media Planning (3)
COMM 400 Mass Media Ethics and Issues (3)

## BA Degree in English & Mass Communication

A student's B.A. degree will include 33 credits earned in the Department of English and 33 credits earned in the School of Communication and Journalism. The dual major is available for those wishing to concentrate on writing. A student may choose to focus the writing experience to coincide with an interest in advertising, broadcast journalism, communication studies, documentary journalism, integrated advertising and public relations, photojournalism, multimedia journalism, or public relations. A student may select his/her major advisor from either the Department of English or the School of Communication and Journalism. Students are encouraged to get advising from faculty in both program units. Completion of 120 credits is required for this degree which includes the Liberal Arts and Sciences Curriculum.

**Program Delivery Mode**
Land plus: face-to-face where some online courses may be available or required

**Designated Writing Intensive Course for Major**
COMM 309 Reporting COMM 306 AD/PR Copywriting

**Core Requirements (36 credits)**
ENGL 300 Introduction to Literary Studies (3)
ENGL 311 Major British Writers I (3)
ENGL 314 Topics in Shakespeare (3)
ENGL 371 Survey of American Literature I (3)

ENGL 380 World Literature (3)
COMM 101 Introduction to Mass Media (3)
COMM 210 Media Writing (3)
COMM 220 Layout and Typography I (3)
COMM 230 Photography (3)
COMM 324 International Communications (3)
COMM 400 Mass Media Ethics and Issues (3)
COMM 403 Communications Law (3)

**Restricted Electives (12 credits)**
Students must choose nine credits from the listed English courses and must also choose a three credit communications course from those listed.

ENGL 285 Scriptwriting (3)
ENGL 288 Introduction to Creative Writing (3)
ENGL 372 Survey of American Literature II (3)
ENGL 387 Technical Report Writing (3)
ENGL 388 Creative Writing (3)
COMM 306 Advertising & Public Relations Copywriting (3) **or**
COMM 309 Reporting (3)

**Electives (18 credits)**
Students must take 9 elective credits in English courses and 9 elective credits in communications courses. The English elective credits must be at the 300 level or above and at least one course must be at the 400 level. Further, at least one course must be in American literature and at least one course must be in British literature. The English electives should be chosen in close consultation with an advisor from the English Department. The communications electives must also be chosen in close consultation with a faculty advisor in the School of Communication and Journalism department and may be drawn from any COMM or LEAD rubric.

## BS Degree in Integrated Advertising & Public Relations

The major in Integrated Advertising and Public Relations balances the breadth of the liberal arts and sciences curriculum with the depth of a professional curriculum in both advertising and public relations, along with a choice of unrestricted electives to provide a well-rounded educational experience. Majors must complete 120 credits with a minimum of 40 credits at the 300-400 levels. Majors will complete LASC, 54 credits in the advertising and public relations program, and the remaining credits will be available as unrestricted electives. Internships, while not formally required, are strongly encouraged to gain additional insight into the journalism profession.

Student Learning Outcomes

In addition to the overarching learning outcomes, the nuanced learning outcomes of the integrated advertising and public relations major are:

- Demonstrate an awareness and understanding of the principles of both advertising and public relations.
- Demonstrate an awareness and understanding of the ethical standards of both the advertising and public relations professions.
- Demonstrate an awareness and understanding of the information sharing process, the relationship building process and the centrality of the process of persuasion to advertising and public relations.
- Demonstrate entry-level competency to research, create, write, design and produce both advertising and public relations visual and verbal messaging, campaigns, and special events.
- Develop an awareness and understanding of the process of buying and selling media.
- Demonstrate an ability to work collaboratively as a member of a team.
- Demonstrate a competency to produce an advertising or public relations document that meets entry-level, industry standards.
- Demonstrate entry-level professional competence through the successful completion of an internship or other professional field experience.

**Program Delivery Mode**
Land plus: face-to-face where some online courses may be available or required

**Designated Writing Intensive Course for Major**
COMM 306 Advertising and Public Relations Copywriting (3)

**Core Requirements (54 credits)**
COMM 101 Introduction to Mass Media (3)
COMM 210 Media Writing (3)
COMM 220 Layout and Typography I (3)
COMM 230 Photography (3)
COMM 251 Video Production for Advertising, News, and Public Relations (3)
COMM 283 Advertising and Public Relations Principles (3)
COMM 285 Intercultural Communications (3)
COMM 305 Imaging and Photo Illustration (3)
COMM 306 Advertising and Public Relations Copywriting (3)
COMM 351 Messaging for Mobile Media (3)
COMM 352 Social Media Campaigns (3)
COMM 354 Social Media Metrics (3)
COMM 365 Media Planning (3)
COMM 383 Event Planning (3)
COMM 400 Media Ethics and Issues (3)
COMM 403 Communications Law (3)
COMM 459 Advertising and Public Relations Campaign Research (3)
COMM 460 Advertising and Public Relations Campaign Execution (3)

## BS Degree in Multimedia Journalism

The major in Multimedia Journalism balances the breadth of the liberal arts and sciences curriculum with the depth of a professional curriculum in multimedia journalism, along with a choice of unrestricted electives to provide a well-rounded educational experience. Majors must complete 120 credits with a minimum of 40 credits at the 300-400 levels. Majors will complete LASC, 45 credits in the multimedia journalism program, and the remaining credits will be available as unrestricted electives. Internships, while not formally required, are strongly encouraged to gain additional insight into the journalism profession.

Student Learning Outcomes

In addition to the overarching learning outcomes stated, the nuanced learning outcomes of the multimedia journalism major are:

- Demonstrate an awareness and understanding of the principles of journalism.
- Demonstrate an awareness and understanding of the ethical standards of the journalism profession.
- Investigate, write, report, digitally photograph and digitally edit video and still photographs, copy-edit, design and produce content that incorporates formatting for both online and off-line publications.
- Demonstrate an ability to work collaboratively as a member of a team.
- Develop and publish an online publication that meets entry-level, industry standards.
- Demonstrate entry-level professional competency through the successful completion of an internship or other professional field experience.

**Program Delivery Mode**
Land plus: face-to-face where some online courses may be available or required

**Designated Writing Intensive Course for Major**
COMM 309 Reporting (3)

**Core Requirements (45 credits)**
Students must take COMM 344 concurrently with either COMM 342 or COMM 343.

COMM 101 Introduction to Mass Media (3)
COMM 210 Media Writing (3)
COMM 220 Layout and Typography I (3)
COMM 230 Photography (3)
COMM 251 Video Production for Advertising, News, and Public Relations (3)
COMM 285 Intercultural Communication (3)
COMM 309 Reporting (3)
COMM 330 Photojournalism (3)
COMM 342 TV News Reporting (3) **or**
COMM 343 TV News Photography (3)
COMM 344 TV News Video Editing (3)
COMM 352 Social Media Campaigns (3)
COMM 400 Mass Media Ethics and Issues (3)
COMM 403 Communications Law (3)

COMM 406 Feature Writing (3)
COMM 420 Digital Storytelling (3)

## BS Degree in Photojournalism

The major in Photojournalism balances the breadth of the liberal arts and sciences curriculum with the depth of a professional curriculum in photojournalism, along with a choice of unrestricted electives to provide a well-rounded educational experience. Majors must complete 120 credits with a minimum of 40 credits at the 300-400 levels. Majors will complete LASC, 45 credits in the photojournalism program, and the remaining credits will be available as unrestricted electives. Internships, while not formally required, are strongly encouraged to gain additional insight into the journalism profession.

Student Learning Outcomes

In addition to the overarching learning outcomes, the nuanced learning outcomes of the photojournalism major are:

- Demonstrate an awareness and understanding of the principles of photojournalism.
- Demonstrate an awareness and understanding of the ethical standards and legal requirements of the journalism profession.
- Demonstrate the ability to digitally photograph and edit photos and video for newspapers, television, multimedia publications and social media.
- Demonstrate the ability to work collaboratively as a member of a team.
- Photograph and edit stories for Campus News, a weekly program broadcast on Prairie Public Television (traditionally in the spring semester).
- Shoot and edit still photography for a documentary photography project.
- Shoot video and record audio for a television documentary (traditionally in the fall semester).
- Demonstrate an entry-level professional competency through the successful completion of an internship or other professional field experience.

**Program Delivery Mode**
Land plus: face-to-face where some online courses may be available or required

**Designated Writing Intensive Course for Major**
COMM 309 Reporting (3)

**Core Requirements (45 credits)**
Students must take COMM 343 and COMM 344 concurrently.

COMM 101 Introduction to Mass Media (3)
COMM 210 Media Writing (3)
COMM 220 Layout and Typography I (3)
COMM 230 Photography (3)
COMM 285 Intercultural Communication (3)
COMM 305 Imaging & Photo Illustration (3)
COMM 309 Reporting (3)
COMM 330 Photojournalism (3)
COMM 343 TV News Photography (3)
COMM 344 TV News Video Editing (3)
COMM 400 Media Ethics and Issues (3)
COMM 403 Communications Law (3)
COMM 430 Documentary Photography (3)
COMM 431 Photo Story (3)
COMM 440 Broadcast Documentary (3)

## Minor in Broadcast Journalism

18 credits

The minor in Broadcast Journalism is designed to introduce students to broadcast journalism and develop one's skills in verbal and visual storytelling.

COMM 210 Media Writing (3)
COMM 251 Video Production of Ads, News, & PR (3)
COMM 308 Broadcast Journalism (3)
COMM 341 TV News Writing (3)
COMM 342 TV News Reporting (3)
COMM 344 TV News Editing (3)

## Minor in Communication Studies

15 credits

The goal of the minor in Communication Studies is to introduce students to both the theory and

practice of human communication in a variety of contexts and interactive settings.

COMM 110 Introduction to Communication Studies (3)
COMM 211 Group and Team Communication (3)
COMM 301 Business and Professional Communication (3)
COMM 315 Communication Theory (3)
COMM 310 Rhetorical Theory and Criticism (3) **or**
COMM 410 The Rhetoric of Popular Culture (3)

## Minor in Integrated Advertising & Public Relations

18 credits

The minor in Integrated Advertising and Public Relations is designed to introduce students to advertising and public relations and develop one's skills in verbal and visual storytelling.

COMM 210 Media Writing (3)
COMM 220 Layout and Typography I (3)
COMM 230 Photography (3)
COMM 283 Advertising and Public Relations Principles (3)
COMM 306 Advertising and Public Relations Copywriting (3)
COMM 352 Social Media Campaigns (3)

## Minor in Mass Communications

27 credits

The goals of the minor in Mass Communications are to introduce students to the profession of mass communications and develop one's skills in verbal and visual storytelling. Students can concentrate electives in a particular area of interest or may choose to take a broad range of electives from the communication majors in integrated advertising and public relations, broadcast journalism, multimedia journalism, and photojournalism.

**Core Requirements (12 credits)**
COMM 101 Introduction to Mass Media (3)
COMM 210 Media Writing (3)
COMM 220 Layout and Typography I (3)
COMM 230 Photography (3)

**Restricted Electives (6 credits)**
Students must choose two courses from the following list.

COMM 285 Intercultural Communication (3)
COMM 400 Mass Media Ethics and Issues (3)
COMM 403 Communications Law (3)

**Electives (9 credits)**
Students must choose nine credits of electives in COMM, topically linked to one or more of the majors in Broadcast Journalism, Integrated Advertising and Public Relations, Multimedia Journalism, or Photojournalism.

## Minor in Media Analysis

18 credits

The minor in Media Analysis is designed to introduce students to the strategic use of media.

COMM 101 Introduction to Mass Media (3)
COMM 210 Media Writing (3)
COMM 220 Layout and Typography I (3)
COMM 352 Social Media Campaigns (3)
COMM 354 Social Media Metrics (3)
COMM 365 Media Planning (3)

## Minor in Photojournalism

15 credits

The minor in Photojournalism is designed to introduce students to photojournalism and develop one's skills in visual storytelling.

COMM 343 and COMM 344 must be taken concurrently.

COMM 220 Layout and Typography I (3)
COMM 330 Photojournalism (3)
COMM 343 TV News Photography (3)
COMM 344 TV News Editing (3)
COMM 431 Photo Story (3)

## Minor in Sports Communication

18 credits

The minor in Sports Communications is designed to introduce students to Sports Communications and develop one's skills in verbal and visual storytelling.

COMM 210 Media Writing (3)
COMM 220 Layout and Typography I (3)
COMM 353 Audio and Video Production Online (3)
COMM 380 Foundations of Sports Communication (3)
COMM 381 Sports Information and the Media (3)
COMM 382 Sports Promotions (3)

# *College of Education and Human Services*

*The College of Education and Human Services is comprised of collaborative, community-minded professionals who provide rigorous, best practices education to prepare students to meet the social, education, leadership, health and human service needs of our world. The College includes Speech-Language-Hearing Sciences, the School of Teaching and Learning, and the School of Social Work. What they share is a set of core principles that combine service to others and to the community with a high standard of professional excellence.*

*Just as hands-on "real world" work is inherent to the human services professions, authentic hands-on experience is an integral part of the education and human services curricula. Throughout their programs of study, students are immersed in many hours of service learning, volunteer work, internships, student teaching or field experiences to provide the practical skills and knowledge needed to excel.*

## School of Teaching and Learning

**Lommen Hall 216, (218) 477-2216**
**Chair:** Erin Gillett
Interim Director of Field Experience and SARTE: Lisa Staiger
SARTE Coordinator: Keri DeSutter
**Faculty:** Victoria Anderson, Keri DeSutter, Dawnita Gallo, Erin Gillett, Marci Glessner, Shirley Johnson, Scott Klimek, David Kupferman, Barry Olson, Sung Ok Park, Julia Poplin, Peggy Rittenhouse

Additional information about education policies and degree requirements can be found under *Teacher Education*.

**Areas of Study**
Early Childhood Education, Non-Licensure Early Childhood Education, and Elementary Inclusive Education with the option of Special Education Licensure.

**Elementary Inclusive and Early Childhood Admissions Requirements**
Student wishing to complete a major in Elementary Inclusive Education or Early Childhood Education must meet all the SARTE (Selective Admission and Retention in Teacher Education) requirements.

A minimum cumulative GPA of 2.75 is required. In addition to the GPA requirement, students must meet minimum competencies on the following:

- Grade earned in ED 205 (at least a C- required)
- Grade earned in ED 294 (at least a C- required)
- Any Dispositions concern by course instructor are addressed
- ED 205 Cooperating Teacher Disposition Assessment
- Additional Disposition Assessment
- Disposition Self-Assessment and Essay

Please refer to the SARTE information and instructions, under *Teacher Education*, in this ***Bulletin*** for details.

Full admittance to Teacher Education through SARTE requirements is required before students can enroll in 300 and 400 level courses in ED, EECE, SPED or STL. Students must also take the appropriate MTLE licensure exams in both content and pedagogy before they may apply for Minnesota licensure. Students should consult with their advisor regarding current licensure requirements.

**Non-Licensure Early Childhood Education Admission Requirements**
Students wishing to complete a major in Early Childhood Education Non-Licensure must meet the following requirements:

- Complete 45 semester credits
- GPA of 2.25 in LASC
- Overall GPA of 2.5
- Verification from supervisor of experience with groups of children in a teaching/learning setting.

**Major in Elementary Inclusive Education**
This program prepares teachers to teach the wide range of diverse learners found in today's K-6 classrooms. The course of study emphasizes academic content knowledge, assessment of student needs, differentiated instruction, collaborative decision making, and an intentional emphasis on learning in field-based placements. Because the program prepares teachers for inclusive classrooms, with 30 additional credits it is possible to also pursue licensure in Special Education. The Elementary Inclusive Education degree prepares candidates to apply for a Minnesota teaching license in Elementary Education.

Continued adherence to the SARTE requirements, including a cumulative GPA of 2.75, is required for enrollment in any 300/400 level education course. Grades of C- or higher must be earned in all courses that are required for licensure.

**Major in Early Childhood Education**
The Early Childhood Education major prepares students to teach in inclusive programs serving children from birth through third grade. These programs include licensed childcare, preschool, Head Start, Early Childhood Family Education, public school kindergarten and first, second, and third grade classrooms. The Early Childhood

Education major emphasizes collaboration with families and other professional agencies that serve families with young children. This major prepares candidates to apply for a Minnesota teaching license in Early Childhood Education.

Continued adherence to the SARTE requirements, including a cumulative GPA of 2.75, is required for enrollment in any 300/400 level education course. Grades of C- or higher must be earned in all courses that are required for licensure.

**Major in Non-Licensure Early Childhood Education**
The Early Childhood Education--Non-Licensure major prepares students to teach in inclusive education and care programs serving infants, toddlers, and preschool children and their families. Graduates are qualified to teach in licensed childcare and pre-school programs, Head Start, and Early Head Start. The Early Childhood Education non-licensure major is designed to provide a strong foundation in understanding child development, developmentally appropriate practices, early literacy development, young children's learning, and current best practices in supporting young children and their families in a variety of settings.

## Teacher Education

Minnesota State University Moorhead's education programs are accredited by the Council for the Accreditation of Educator Preparation (CAEP) and meet the standards set by the Minnesota Professional Educator Licensing and Standards Board.

**MSUM's Education Programs**
Elementary Inclusive Education
Early Childhood Education
Early Childhood Education Non-Licensure
Special Education
Secondary Teaching in Social Studies, Communication Arts & Literature, Sciences, Mathematics, and Health
K-12 Teaching in Physical Education, Art, and Music.

**Teacher Education Requirements**
To be eligible for graduation in any MSUM teacher education major, students must fulfill the following requirements:

- Admission to teacher education (SARTE) and retention in good standing.
- Completion of an education sequence of courses as established by the chosen program.
- Successful completion of all field experiences and student teaching.

Students are also strongly encouraged to take the Minnesota content and pedagogy exams before graduation. Testing information can be found at mtle.nesinc.com. Students should also meet regularly with their advisors in order to maintain awareness of basic skills requirements for tiered licensure.

**Selective Admission and Retention in Teacher Education (SARTE)**
Formal admittance to Teacher Education (SARTE) is required before enrolling in 300 and 400 level courses with the prefixes ED, EECE, SPED, and STL.

To be admitted to Teacher Education, certain requirements must be met.

Students must earn a minimum GPA of 2.75 (Elementary Inclusive and Early Childhood, and Special Education) or GPA of 2.5 (Secondary/K-12 Education) in order to be admitted into Teacher Education. All students must take ED 205 and ED 294, earning at least a grade of C- in each course. There are also dispositions and assessment requirements. For more information, please see the SARTE page.

**Retention in Teacher Education**
Once a student has been admitted to Teacher Education, there are 3 points at which a student's progress is reviewed.

**Retention Point I**

*Early Childhood Education and Elementary Inclusive Education*

At the time of advising, the student and advisor will review GPA, course grades in the major, and

dispositions concerns. If a student does not meet SARTE requirements, a SARTE appeal form will need to be completed and reviewed by the Teacher Education Retention Team.

*Secondary/K-12*

Semester after taking ED 310: During advising, the student and advisor will review GPA, course grades in major, and dispositions concerns. If a student does not meet SARTE requirements, a SARTE appeal form will need to be completed and reviewed by the Teacher Education Retention Team.

**Retention Point II**

*All Majors*

Application for Student Teaching: During advising, the student and advisor will review GPA, course grades in the major, dispositions concerns, MTLE scores, and that all courses in the major have been or will be completed before student teaching begins. If a student does not meet SARTE requirements, a SARTE appeal form will need to be completed and reviewed by the Teacher Education Retention Team.

**Retention Point III**

Completion of Student Teaching: Students must meet all of the requirements for student teaching to be eligible for graduation.

**Dismissal from Teacher Education**
A student may be dismissed from Teacher Education if remediation of knowledge, skills, and/or dispositions has been unsuccessful. A student may also be dismissed for a violation of The Code of Teacher Ethics as put forth by the Minnesota Board of Teaching. The Code of Ethics can be found in the MSUM Student Teaching Handbook and on the Minnesota Professional Educator Licensing and Standards Board website.

**Student Teaching**
Student teaching is the culminating experience for all education majors. Required courses in the major must be completed before student teaching. The Field Experiences Website gives a detailed description of the requirements and expectations for student teaching.

The online Student Teaching Application can be found in TK20.

Student Teaching Application Deadlines: For spring, applications are due September 15; for fall, applications are due February 15.

**Minnesota Teacher Licensure Requirements**
MSUM will recommend you for licensure to the state of Minnesota when you have completed all requirements. Licensure information can be found mn.gov/pelsb.

Minnesota State University Moorhead prepares students for Minnesota teacher licensure. A student interested in licensure from other states (including North Dakota) should contact departments of teacher licensure in those states for specific information, as it is the student's responsibility to meet individual states' requirements for licensure.

These are the requirements for secondary/K-12 education licensure.

Secondary Education Licensure Requirements
Students must earn at least a C- or higher in all licensure coursework.

COMM 100 Speech Communication (3)
ED 205 Introduction to Education (3)
ED 294 Educational Psychology (3)
ED 310 Social Foundations of Education (3)
ED 498 The Professional Teacher in the Classroom (3)
ED 448 Reading Study Skills in the Content Areas (3)
ED 461S Student Teaching: Secondary (12) **or**
ED 460S Student Teaching: Secondary (6) **and**
EECE 480E Student Teaching: Elementary (6) **or**
ED 461V Student Teaching: Secondary/K-12 (12)
SPED 413 Teaching in Inclusive Environments (3)
**Total: 33 credits**

Teacher licensure requirements must be met in order to receive a secondary teaching license in the state of Minnesota. The MN Professional Educator

Licensing and Standards Board information can be found HERE.

Information on MSUM Teacher Licensure can be found HERE.

## BS Degree in Early Childhood Education

The Early Childhood major prepares students to teach in inclusionary programs serving children from birth through third grade. These programs include childcare, licensed preschools, Head Start, Early Childhood Family Education, and kindergarten through third grade in elementary schools. The Early Childhood major emphasizes collaboration with families and other professional agencies serving families with young children. To receive the B.S. Degree in Early Childhood Education, the student must meet the minimum university requirements and specific requirements for the program. Completion of 120 credits with a 2.75 GPA or above is required for this degree which includes the Liberal Arts and Sciences Curriculum and Early Childhood Education requirements. All coursework for this degree requires a grade of C- or higher.

**Admission Requirements**

Teacher Education information can be found HERE.

Student Learning Outcomes

The following performance outcomes are based on the Minnesota State Professional Educator Licensing Standards Board (PELSB) Standards and are aligned with the conceptual framework for the education unit. MSUM teacher candidates are becoming professionals who are knowledgeable, reflective, humanistic and creative who will:

- Demonstrate knowledge of content.
- Designs organized, effective, and appropriate lessons.
- Uses appropriate informal and/or formal assessment methods to evaluate.
- Demonstrate knowledge of human development through appropriate interaction activities and demeanor.
- Demonstrate competence in employing appropriate technology.
- Express ideas articulately in written and oral communication.
- Recognize individual differences and gives opportunities for diverse learners to learn.
- Foster a safe, compassionate and respectful educational environment that promotes learning.
- Guide student behavior effectively and appropriately.
- Solicit suggestions and feedback from others and is receptive to them.
- Analyze own performance and seeks sources of improvement.
- Plan creative lessons and units.
- Employ diverse teaching strategies.
- Maintain professional conduct as evidenced by punctuality, interaction with others, preparedness and initiative.

**Program Delivery Mode**

Land plus: face-to-face where some online courses may be available or required

**Designated Writing Intensive Course for Major**

STL 482 Behavior, Trauma, and Mental Health

**Core Requirements**

ED 205 Introduction to Education (3)
ED 294 Educational Psychology (3)
ED 310 Social Foundations of Education (3)
SPED 225 Individuals with Exceptionalities (3)
STL 295 Foundations of Language & Literacy (3)

EECE 220 Foundations of Early Childhood & Early Childhood Special Education (3)
STL 230 Child Development & Learning for Teachers (3)
EECE 275 Effective Methods & Materials in Early Childhood (3)
STL 325 Principles of Inclusive & Responsive Teaching: Technology Emphasis (2)
STL 365 Responsive Teaching I: Learning Environments & Differentiation (3)
STL 380 Models of Teaching & Assessment (3)
STL 395 Literacy Methods I (3)
STL 441 Children's Literature: Content and Methods (3)
EECE 420 Kindergarten Methods (3)

EECE 426 Primary Methods: Math, Science, Social Studies (3)
EECE 430 Infant/Toddler Programs and Practices (3)
EECE 433 Preschool Curriculum (3)
EECE 437 Leadership and Administration in Early Childhood Education (3)
EECE 438 Guidance and Play (3)
EECE 428 Building Partnerships (2)
STL 482 Behavior, Trauma, and Mental Health in the classroom (WI) (3)
EECE 481C Student Teaching: Early Childhood (2)
EECE 481E Student Teaching: Kindergarten/Elementary (12-16)

**Total: 63 credits + at least 12 student teaching credits = 75**

*NOTE: Students must earn 12 credits in EECE 481E or Students must earn at least 12 credits in a combination of EECE 481E & EECE 481V*

**Related Requirements (6 credits)**
COMM 100 Speech Communication (3)
MATH 302 Mathematics for Early Childhood (3)

**Restricted Electives (6 credits)**
Students must complete two science courses.

BIOL 370 Exploring Biology (3)
GEOS 170 Earth Science Today (3)
PSCI 170 Physical Science I (3)

## BA Degree in Early Childhood Education Non-Licensure

The Early Childhood Education Non-Licensure major prepares students to teach in inclusive education and care programs serving infants, toddlers, and preschool children and their families. Graduates are qualified to teach in Head Start, Early Head Start, and licensed childcare and preschool programs. The Early Childhood Education Non-Licensure major is designed to provide a strong foundation in understanding child development, developmentally appropriate practices, early literacy development, young children's learning, and current best practices in supporting young children and their families in a variety of settings. To receive the B.A. Degree in Early Childhood Education Non-Licensure, the student must meet the minimum university requirements and specific requirements for the program. Completion of 120 credits with a 2.5 GPA or above is required for this degree which includes the Liberal Arts and Sciences Curriculum.

Student Learning Outcomes

The following performance outcomes are based on standards from the Minnesota Professional Educator Licensing and Standards Board (PELSB) and are aligned with the conceptual framework for the education unit. MSUM teacher candidates are becoming professionals who are knowledgeable, reflective, humanistic and creative who will:

- Demonstrate knowledge of content.
- Designs organized, effective, and appropriate lessons.
- Uses appropriate informal and/or formal assessment methods to evaluate.
- Demonstrate knowledge of human development through appropriate interaction activities and demeanor.
- Demonstrate competence in employing appropriate technology.
- Express ideas articulately in written and oral communication.
- Recognize individual differences and gives opportunities for diverse learners to learn.
- Foster a safe, compassionate and respectful educational environment that promotes learning.
- Guide student behavior effectively and appropriately.
- Solicit suggestions and feedback from others and is receptive to them.
- Analyze own performance and seeks sources of improvement.
- Plan creative lessons and units.
- Employ diverse teaching strategies.
- Maintain professional conduct as evidenced by punctuality, interaction with others, preparedness and initiative.

**Program Delivery Mode**
Online Plus: offered entirely online with face-to-face options available for some/all sections

**Designated Writing Intensive Course for Major**
STL 482 Behavior, Trauma, and Mental Health in the Classroom

**Core Requirements (38 credits)**
EECE 220 Foundations of Early Childhood/Early Childhood Special Education (3)
STL 230 Child Development and Learning for Teachers (3)
STL 295 Foundations of Language & Literacy (3)
SPED 225 Individuals with Exceptionalities (3)
EECE 275 Effective Methods and Materials in ECE (3)
EECE 430 Infant/Toddler Programs and Practices (3)
EECE 437 Leadership and Administration in EC (3)
EECE 438 Guidance and Play (3)
EECE 428 Building Partnerships (2)
EECE 433 Preschool Curriculum (3)
STL 482 Behavior, Trauma, and Mental Health in the Classroom - WI (3)
EECE 469 Early Childhood Internship (6-12)

**Restricted Electives (9 credits)**
Students must earn nine credits by taking courses from the following list:

SPED 419 Biomedical Aspects of Physical and Health Disabilities (3)
SPED 431 Survey of Autism Spectrum Disorders (3)
SPED 471 Behavior and Environmental Management (3)
STL 365 Responsive Teaching I: Learning Environments and Differentiation (3)
STL 380 Models of Teaching and Assessment (3)
STL 395 Literacy Methods I (3)
STL 441 Children's Literature (3)

## BS Degree in Elementary Inclusive Education

To receive the B.S. Degree in Elementary Inclusive Education, the student must meet the minimum university requirements and specific requirements for the program. Completion of 120 credits with a 2.75 GPA or higher is required to graduate with this degree which includes the Liberal Arts and Sciences Curriculum. Admission to SARTE is required to enroll in upper-division ED, STL, and SPED courses. A student may choose to pursue special education through the Special Education Academic and Behavior Strategist option for this degree. A grade of C- or higher is required in all core requirements, related requirements, and emphasis requirements.

**Admission Requirements**
Teacher Education information can be found HERE

Student Learning Outcomes

The following performance outcomes are based on the Minnesota Professional Educator Licensing and Standards Board (PELSB) Standards and are aligned with the conceptual framework for the education unit. MSUM teacher candidates are becoming professionals who are knowledgeable, reflective, humanistic and creative who will:

- Demonstrate knowledge of content.
- Designs organized, effective, and appropriate lessons.
- Uses appropriate informal and/or formal assessment methods to evaluate.
- Demonstrate knowledge of human development through appropriate interaction activities and demeanor.
- Demonstrate competence in employing appropriate technology.
- Express ideas articulately in written and oral communication.
- Recognize individual differences and gives opportunities for diverse learners to learn.
- Foster a safe, compassionate and respectful educational environment that promotes learning.
- Guide student behavior effectively and appropriately.
- Solicit suggestions and feedback from others and is receptive to them.
- Analyze own performance and seeks sources of improvement.
- Plan creative lessons and units.
- Employ diverse teaching strategies.

- Maintain professional conduct as evidenced by punctuality, interaction with others, preparedness and initiative.

**Program Delivery Mode**
Online Plus: offered entirely online with face-to-face options available for some/all sections

**Designated Writing Intensive Course for Major**
STL 482 Behavior, Trauma, and Mental Health in the Classroom

**Core Requirements**
ED 205 Introduction to Education (3)
ED 294 Educational Psychology (3)
ED 310 Social Foundations of Education (3)
SPED 225 Individuals with Exceptionalities (3)
STL 325 Principles of Inclusive and Responsive Teaching: Technology Emphasis (2)
ART 219 Elementary Methods and Materials for Visual and Performing Arts Education (3)
MATH 406 Mathematics in the Elementary School (3)
STL 226 Social Studies Content for Elementary Teachers (2)
STL 230 Child Development & Learning for Teachers (3)
STL 295 Foundations of Language & Literacy (3)
STL 365 Responsive Teaching I: Learning Environments & Differentiation (3)
STL 380 Models of Teaching & Assessment (3)
STL 395 Literacy Methods I (3)
STL 441 Children's Literature (3)
STL 465 Responsive Teaching II: Collaboration & Team Decision Making (3)
STL 474 Methods in Teaching Elementary Science & Environmental Education (3)
STL 476 Methods for Teaching Elementary Social Studies (3)
STL 480 Advanced Models of Teaching & Assessment (3)
STL 482 Behavior, Trauma, and Mental Health in the Classroom (3)
STL 495 Literacy Methods II (3)
STL 452E/SPED 452E Senior Level Field Experience (2)
STL 481E Student Teaching: Elementary (8-16)

Students who choose not to add Special Education Licensure must complete at least 12 credits of STL 481E Student Teaching: Elementary.

**Total: 60 credits + student teaching credits (8-16) = 68-76 credits**

**Related Requirements (21 credits)**
BIOL 370 Exploring Biology (3)
COMM 100 Speech Communication (3)
GEOS 170 Earth Science Today (3)
MATH 110 Introduction to Mathematics (3)
MATH 303 Foundations of Number Systems (3)
MATH 304 Informal Geometry (3)
PSCI 170 Physical Science I (3)

**Special Education Academic and Behavioral Strategist Option**
SPED 402 Characteristics of Students with Mild Disabilities (3)
SPED 403 Methods: Mild Disabilities (4)
SPED 410 Methods and Strategies of Special Education Assessment (3)
SPED 410L Special Education Lab (2)
SPED 414 IEP Policies and Methods (2)
SPED 468M ABS Middle/Secondary Competency Based Field Experience (6)
SPED 470 Secondary Services and Transitional Planning (4)
SPED 471 Behavioral and Environmental Management (3)
SPED 480 Legal/Social Foundations of Special Education (3)

## Minor in Educational Studies

The Educational Studies Minor offers more educational preparation for students pursing teaching licensure in secondary or K-12 content areas. Additionally the Educational Studies Minor may be attractive to students pursuing interests in fields such as law, medicine, social or behavioral sciences, criminal and social justice, youth services, and domestic and global issues. The Educational Studies Minor does not lead to a teaching certificate or license. To fulfill the minor requirements, at least 12 credits must be completed outside of the student's major requirements. This minor is available to students in

any major except Elementary Inclusive Education or Early Childhood Education (licensure or non-licensure).

**Core Requirements (9-18 credits)**
At least 9 credits must be completed from this list:

ED 205 Introduction to Education (3)
ED 294 Educational Psychology (3)
ED 310 Social Foundations of Education (3)
EECE 220 Foundations of Early Childhood and Early Childhood Special Education (3)
STL 230 Child Development (3)
STL 295 Foundations of Language and Literacy (3)
STL 325 Principles of Inclusive and Responsive Teaching: Technology Emphasis (2)
STL 441 Children's Literature Content and Methods (3)
STL 482 Behavior, Trauma, and Mental Health in the Classroom (3) (WI)
SPED 225 Individuals with Exceptionalities (3)
SPED 402 Characteristics of Students with Mild Disabilities (3)
SPED 404 Best Practices in Teaching I (3)
SPED 413 Teaching in Inclusive Environments (3)

At least 12 credits must be from outside the student's major requirements.

**Electives (0-9 credits)**
Students can choose from courses below to complete the minor. No more than 6 credits within the list of electives from the same rubric (SW or PSY) can be completed to fulfill minor requirements. At least 12 credits must be outside the student's major requirements.

CJ 201 Introduction to Juvenile Justice (3)
SLHS 101 Survey of SLHS (3)
SLHS 204 Language Development (3)
SW 250 Introduction to Social Welfare and Social Work (3)
SW 405 Human Behavior and the Social Environment (3)
SW 402 Child Welfare Services (3)
PSY 275 Behavior Modification (3)
PSY 342 Learning and Memory (3)
PSY 402 Child/Adolescent Psychology (3)

## Minor in Special Education
18 credits

**Core Requirements (9 credits)**
SPED 225 Individuals with Exceptionalities (3)
SPED 471 Behavior and Environment Management (3)
SPED 480 Legal/Social Foundations of Special Education (3)

**Restricted Electives (9 credits)**
Choose nine credits of electives from the following list:

EECE 220 Foundations of Early Childhood & Early Childhood Special Education (3)
SPED 402 Characteristics of Students with Mild Disabilities (3)
SPED 404 Best Practices in Teaching I (3)
SPED 413 Teaching in Inclusive Environments (3)
SPED 414 IEP Policies and Methods (2)
SPED 419 Biomedical Aspects of Physical and Health Disabilities (3)
SPED 431 Survey of Autism Spectrum Disorders (3)
SPED 455 Characteristics of Students with Learning and Behavior Problems (4)

## Special Education Optional Licensure
This course sequence will qualify students to apply for a special education Academic Behavior Strategist K-12 Minnesota teaching license when completed in conjunction with another Secondary or K-12 education major (i.e., Communication Arts/Literature Education, Math Education, Art Education, etc.)
Students taking upper level education courses are required to meet Selective Admission and Retention Teacher Education (SARTE) requirements. Students will need to fulfill SARTE requirements and check point requirements as defined within their major program.

- Students will demonstrate skills related to special education teaching at the elementary, middle, and high school level.

- Students will demonstrate mastery of legal and due process requirements for evaluation, instructing, and serving students with identified special educational needs.
- Students will develop collaboration and communication skills necessary for working with parents of children with special needs and other professionals serving students with special needs.
- Students will demonstrate proficiency related to core special education licensure standards developed by the Minnesota Board of Teaching.
- Students will demonstrate proficiency related to the Academic Behavior Strategist (ABS) licensure standards developed by the Minnesota Board of Teaching.

SPED 225 Individuals with Exceptionalities (3)
SPED 402 Characteristics of Students with Mild Disabilities (3)
SPED 403 Methods: Mild Disabilities (4)
SPED 410 Methods and Strategies of Special Education Assessment (3)
SPED 410L Special Education Lab (2)
SPED 413 Teaching in Inclusive Environments (3)
SPED 414 IEP Policies and Methods (2)
SPED 430 Foundations of Reading and Writing Methods (3)
SPED 445 Methods of Reading Intervention (3)
SPED 470 Secondary Services and Transitional Planning (4)
SPED 471 Behavior and Environment Management (3)
SPED 480 Legal and Social Foundations of Special Education (3)
SPED 468M ABS Competency Based Field Experience/Student Teaching (6)
ED 498 The Professional Teacher in the Classroom (2)
MATH 110 Introduction to Mathematics (3)
MATH 407 Add+VantageMR 1: Math Recovery Strategies for the Classroom (2)

## School of Social Work

**Lommen 114, (218) 477-2632**

**Chair:** Tracy Neusser
**Faculty:** Nandita Bezbaruah, Jeremy Carney, Tracy Neusser, Janelle Miedema

The Minnesota State University Moorhead Social Work Program is accredited by the Council on Social Work Education. The principle educational objective of the social work major is to prepare students for beginning professional generalist social work practice. This course of study also prepares students for graduate education. The Bachelor of Social Work (BSW) degree is awarded upon completion of all university and social work major requirements both within the department and in related areas.

Transfer students with an AA or BA degree from another college or university are exempt from Minnesota State University Moorhead's Liberal Arts and Sciences Curriculum requirement. However, social work majors who are transfer students entering under the Liberal Arts and Sciences Curriculum requirements must have the equivalent of one course from Area 7, Human Diversity and one course from Area 8, Global Perspective.

**Admission to the Major**
Students who wish to major in social work must join TK20/Watermark and then complete a formal application. Details are located in the School of Social Work Student Handbook.

**Criteria for Admission to Social Work**

- The applicant must document official admission to MSUM to be eligible to submit a School of Social Work application.
- The applicant must be enrolled in a class at MSUM the term the application is completed.
- The applicant must have a Tk20 membership.
- The applicant must document a grade of "C" or higher in all social work courses and a passing grade in all related requirements.

- The applicant must document a MSUM GPA of 2.5 or higher and a coursework in major GPA of 2.5 or higher at the time of application for admission.
- The applicant must document completion or current enrollment in SW 250 Introduction to Social Work and Social Welfare and SW 330 Human Behavior in the Social Environment.
- Transfer applicants must document in Tk20 completion of a minimum of 15 hours of supervised human service experience.
- In the event the admissions committee feels additional information is required, the committee may ask for additional documentation and/or personal interview with the applicant.

Current major requirements are available on the school webpage and in the student handbook. A MSUM GPA of 2.5 must be in place prior to internship and at the time of graduation. Students are encouraged to contact the department chair for further information or clarification.

## BSW Degree in Social Work

To receive the BSW Degree in Social Work, the student must meet the minimum university requirements and specific requirements for the program. Completion of 120 credits with a 2.5 MSUM GPA or higher and a 2.5 GPA or higher in coursework for major are required to graduate with this degree which includes the Liberal Arts and Sciences Curriculum.

Student Learning Outcomes

- Identify as a professional social worker and conduct oneself accordingly.
- Apply social work ethical principles to guide professional practice.
- Apply critical thinking to inform and communicate professional judgments.
- Engage diversity and differences in practice.
- Advance human rights and social and economic justice.
- Apply knowledge of human behavior and the social environment.
- Engage in policy practice to advance social and economic well-being and to deliver effective social work services.
- Respond to contexts that shape practice.
- Engage, assess, intervene and evaluate with individuals, families, groups, organizations, and communities.

**Program Delivery Mode**
Land plus: face-to-face where some online courses may be available or required

**Designated Writing Intensive Course for Major**
SW 415 - Research Methods in Social Work SW 460 - Social Policy and Policy Practice

**Core Requirements (40 credits)**
Students must obtain a grade of C- or higher in all courses listed and earn a 2.5 GPA in all core coursework.

SW 250 Introduction to Social Welfare and Social Work (3)
SW 405 Human Behavior and the Social Environment (3) **was SW 330*
SW 415 Research Methods in Social Work (3) **was SW 400*
SW 420 Generalist Practice: Individuals (3)
SW 432 Generalist Practice: Families (3)
SW 442 Generalist Practice: Groups (3)
SW 450 Generalist Practice: Communities and Organizations (3)
SW 460 Social Policy and Policy Practice (3)
SW 468 Orientation to Internship (1)
SW 469 Internship (12)
SW 492 Field Supervision and Integrative Seminar (3)

**Related Requirements (25 credits)**
Students must obtain a passing grade in all related requirements.

BIOL 104 Human Biology (3)
ECON 100 The American Economy (3)
POL 470 Government Benefits (3)
POL 120 American National Government and Politics (3)

PSY 113 General Psychology (3)
PSY 202 Developmental Psychology (3)
SOC 110 Introduction to Sociology (3)
SOC 350 Methods and Statistics for Social Research (4)

**Restricted Electives (3 credits)**
Students must take one elective. Students may take a course chosen from the list below, or a different elective approved by the student's advisor. Students must obtain a grade of C- or higher in their elective.

SW 308 Social Gerontology (3)
SW 402 Child Welfare Services (3)
SW 410 Gerontology: Policy and Practice (4)
SW 411 Chemical Dependency (3)
SW 431 Readings in Social Welfare (2-3)
SW 490 Topics in Social Work (1-3)
SW 497 Independent Study (1-3)
AMCS 372 Dynamics of Prejudice and Oppression (3)
BIOL 300 Biology of Women (3)
ECON 305 The Economics of Poverty, Discrimination, and Inequality (3)
POL 340 Public Administration (3)
POL 341 Public Policy (3)
PSY 463 Abnormal Psychology (3)
SOC 219 Sociology of Sexual Behavior (3)
SOC 310 Dominant-Subordinate Group Relations (3)
SOC 333 Sociology of Gender (3)
SPED 225 Individuals with Exceptionalities (3)

## Sociology and Criminal Justice

**Lommen Hall 212 (218) 477-2045**
**Chair:** Geraldine Hendrix-Sloan
**Faculty:** Karen Branden, Geraldine Hendrix-Sloan, Joel Powell-Dahlquist, Katie Richardson-Jens, Lee Vigilant, Deborah White

**Criminal Justice**
Criminal Justice majors examine the criminal justice system and its components within a multidisciplinary framework. The major provides a broad analysis of the criminal justice system and its historical and contemporary social contexts.

**Sociology**
The sociology major focuses on the study of society, social inequality, organization, social problems, social institutions, and social interaction. As sociology majors, students investigate a wide range of topics such as minorities, family, crime, class, healthcare and religion. Students are encouraged to develop writing and social research skills, as well as a broad understanding of society and organization.

## BA Degree in Criminal Justice

Criminal Justice majors examine the criminal justice system and its components within a multidisciplinary framework. The major provides a broad analysis of the criminal justice system and its historical and contemporary social contexts. To receive the B.A. Degree in Criminal Justice, the student must meet the minimum university requirements and specific requirements for the program. Completion of 120 credits is required for this degree which includes the Liberal Arts and Sciences Curriculum.

Student Learning Outcomes

- Demonstrate an understanding of the social mechanisms, processes, and institutional arrangements that create and reproduce systems of power and inequality, such as race, gender, sexuality, and class.
- Demonstrate an understanding of the significant connections between individuals and social processes.
- Demonstrate knowledge of important theoretical perspectives in their discipline.
- Demonstrate an understanding of scholarly sources of information (i.e. research published in peer-reviewed journals).
- Critique methods, theory, and the work of other scholars.
- Conduct, interpret, present, and write reports about social scientific research using qualitative and/or quantitative methodologies.

- Explain current social phenomena as they relate to major theoretical traditions.

**Program Delivery Mode**
Land plus: face-to-face where some online courses may be available or required

**Designated Writing Intensive Course for Major**
Effective Fall 2022: SOC 451 or SOC 452 Qualitative or Quantitative Methods (was SOC 351 or 352 previously)

**Core Requirements (20 credits)**
CJ 200 Introduction to Criminal Justice (4)
CJ 300 Criminology (3)
CJ 335 Criminal Law (3)
CJ 337 Criminal Procedure (3)
CJ 400 Seminar in Criminal Justice (4)
SOC 310 Dominant-Subordinate Group Relations (3)

**Program Requirements**
Students must choose a nine credit concentration from the following (Gerontology, Political Science, Psychology, Social Work, OR Sociology)

**Gerontology**
SOC 110 Introduction to Sociology (3)
SOC 308 Social Gerontology (3)
POL 416 Elder Law (3)

**Political Science**
POL 120 American National Government and Politics (3)
POL 230 Introduction to the Law (3)
POL 332 Constitutional Law I: Institutional Powers and Constraints (3) **or**
POL 333 Constitutional Law II: Civil Rights and Liberties (3)

**Psychology**
PSY 113 General Psychology (3)
PSY 220 Social Behavior (3)
PSY 261 Personality (3)

**Social Work**
SW 250 Introduction to Social Welfare and Social Work (3)
SW 405 Human Behavior and the Social Environment (3)
SW 402 Child Welfare Services (3) **or**
SW 411 Chemical Dependency (3)

**Sociology**
SOC 110 Introduction to Sociology (3)
SOC 120 Social Psychology (3)
SOC 302 Social Theory (3) **or**
SOC 210 Social Problems (3)

**Law Enforcement Track**
Our Criminal Justice Program provides the opportunity for students to complete the Peace Officer Standards and Training (POST) certification through completion of specific coursework. Please contact Dr. Joel Powell for more information on the licensure and certification process: powell@mnstate.edu.

**Related Requirements (6 credits)**
Students are required to complete at least six credits in research methods courses: SOC 350 Methods and Statistics for Social Research (4), and one of the following: SOC 451 Quantitative Methods (3), or SOC 452 Qualitative Research Methods (3). Students must take SOC 451 or SOC 452 as the required Writing Intensive course for the major.

*Note: SOC 451 and SOC 452 are effective fall 2022. The courses were previously numbered SOC 351 and 352.

**Restricted Electives (12 credits)**
Students must complete a minimum of 12 credits of restricted electives selected from the list below or any Criminal Justice course EXCEPT CJ 111 and CJ 469. 9 of those 12 credits must come from 300 or 400 level courses.

CJ 201 Introduction to Juvenile Justice (3)
CJ 301 Delinquent Behavior (3) **or**
SOC 301 Delinquent Behavior (3)
CJ 303 Punishment and Prisons (3) **or**
SOC 303 Punishment and Prisons (3)
CJ 304 Community Corrections (3) **or**
SOC 304 Community Corrections (3)
CJ 306 Gangs (3)
CJ 309 Law and Society (4) (WI) **or** SOC 309 Law and Society (4) (WI)

CJ 312 Criminal Investigation (3)
CJ 313 Law Enforcement (3)
CJ 380 Global Criminal Justice (3)
CJ 385 Crime, Justice, and Media (3)
CJ 390 Topics in Criminal Justice (1-3)
CJ 430 MN Criminal Law and Procedure (4)
CJ 497 Readings in Criminal Justice (1-3)
POL 230 Introduction to the Law (3)
POL 332 Constitutional Law I: Institutional Powers and Constraints (3) **and**
POL 333 Constitutional Law II: Civil Rights and Liberties (3)
PSY 261 Personality (3)
PSY 317 Alcoholism and Drug Abuse (3)
PSY 463 Abnormal Psychology (3)
SOC 220 Social Deviance (3)
SOC 390 Topics in Sociology (1-3)
SOC 497 Readings in Sociology (1-3)
SW 402 Child Welfare Services (3)
SW 411 Chemical Dependency (3)
SW 490 Topics in Social Work (1-3)

**Internships**

An internship is not required for the major. Internships are important as networking opportunities for those seeking employment. These are usually completed in the Junior or Senior year and may be taken in any academic term. Most students intern during the summer. Internship credits do not apply toward the Criminal Justice major requirement total of 47 credits.

Internship Contact Information
Dr. Geraldine Hendrix-Sloan
sloan@mnstate.edu
218-477-2037
Lommen 212L

## BA Degree in Sociology

The sociology major focuses on the study of society, social inequality, organization, social problems, social institutions, and social interaction. As sociology majors, students investigate a wide range of topics such as minorities, family, crime, class, healthcare and religion. Students are encouraged to develop writing and social research skills, as well as a broad understanding of society and organization. To receive the B.A. Degree in Sociology, the student must meet the minimum university requirements and specific requirements for the program. Completion of 120 credits is required for this degree which includes the Liberal Arts and Sciences Curriculum.

Student Learning Outcomes

- Demonstrate knowledge of important theoretical perspectives in Sociology.
- Demonstrate an understanding of scholarly sources of information (i.e., research published in peer-reviewed journals)
- Critique methods, theory, and the work of other scholars
- Conduct, interpret, present and write reports about social scientific research using qualitative and/or quantitative methodologies.
- Explain current social phenomena as they relate to major theoretical traditions.
- Demonstrate an understanding of the social mechanisms, processes, and institutional arrangements that create and reproduce systems of power and inequality, such as race, gender, sexuality, and class.
- Demonstrate an understanding of the significant connections between individuals and social processes.

**Program Delivery Mode**
Land plus: face-to-face where some online courses may be available or required

**Designated Writing Intensive Course for Major**
SOC 451 Quantitative Methods (3) or SOC 452 Qualitative Methods (3)

**Core Requirements (25 credits)**
SOC 110 Introduction to Sociology (3)
SOC 120 Social Psychology (3)
SOC 210 Social Problems (3)
SOC 302 Social Theory (3)
SOC 310 Dominant-Subordinate Group Relations (3)
SOC 350 Methods and Statistics for Social Research (4)

SOC 451 Quantitative Methods (3) **or**
SOC 452 Qualitative Methods (3)
SOC 450 Senior Seminar in Sociology (3)

**Electives (18 credits)**
Students must complete 18 credits of elective courses. Students may apply up to three credits of Cultural Anthropology or Criminal Justice courses toward the Sociology major with departmental approval. Students may apply up to three credits from readings courses (SOC 497) toward the major. Up to three internship (SOC 469) credits may be taken by Sociology majors, but these credits cannot be applied to the 43 credits required in the major.

## Minor in Juvenile Justice
22 credits

The Juvenile Justice minor serves as one of the only juvenile justice minor programs in the United States. Students interested in working with juveniles through the courts, probation, and correctional facilities will benefit from this minor, as they will explore the juvenile justice system and delinquency through a cross-disciplinary approach. Although the minor is open to all MSUM students, sociology, criminal justice, education and social work majors may find the minor particularly useful in working with adolescents, as they will learn prevention and intervention strategies for dealing with at-risk youth and juvenile delinquents. 22 credits.

**Core Requirements (10 credits)**
CJ 201 Introduction to Juvenile Justice (3)
CJ 301/SOC 301 Delinquent Behavior (3)
CJ 200 Introduction to Criminal Justice (4)

**Restricted Electives (12 credits)**
Twelve credits of electives from the following list.

CJ 306 Gangs (3)
SW 402 Child Welfare (3)
SW 411 Chemical Dependency (3)
SW 499 Grant Writing (3)
PSY 202 Developmental Psychology (3)
PSY 235 Introduction to Neuroscience (3)
PSY 275 Behavior Modification (3)
PSY 317 Alcoholism and Drug Abuse (3)
PSY 342 Learning and Memory (3)
PSY 402 Child/Adolescent Psychology (3)
PSY 417 Child Psychopathology (3)
PSY 475 Applied Behavior Analysis (3)

## Minor in Sociology
24 credits

**Core Requirements (6 credits)**
SOC 110 Introduction to Sociology (3)
SOC 210 Social Problems (3)

**Electives (18 credits)**
Students must take eighteen credits of Sociology electives.

## Speech, Language, Hearing Sciences
**Murray Hall (218) 477-2417**
**Chair:** Elaine Pyle
**Faculty and Clinical Staff:** Jill Bueckens, Lowell Buysse, Mary Drake, Joni Mehrhoff, Nancy Paul, Elizabeth Plankers, Elaine Pyle, Sarah Ring, Rachel Stotts

The academic programs offered in Speech/Language/Hearing Sciences at Minnesota State University Moorhead are designed for students who are interested in the normal and disordered processes of human communication. A major in this area is part of the preparation for clinical, teaching, research or service careers in speech-language pathology, audiology, and communication science.

To practice as a speech-language pathologist the master's degree is the requirement for state licensure and national certification. A professional doctorate is required to practice as an audiologist. The title of the undergraduate major, Speech/Language/Hearing Sciences, suggests that it is a pre-professional degree designed to qualify students for admission to professional study at the graduate level at this or other universities.

The department has established clinical experience eligibility requirements. All students must meet these requirements before they provide assessment or treatment to individuals with

communication disorders. The requirements are as follow:

- C- grade or better in all completed SLHS courses
- a cumulative grade point average of 3.25 or above
- no outstanding grades of incomplete
- supervised clinical observations

If a student does not meet the stated requirements they may initiate an appeal through the department's committee.

Although the undergraduate program at other universities is usually the same for future speech-language pathologists and audiologists, the Speech/Language/Hearing Sciences Department at Minnesota State University Moorhead offers a pre-audiology emphasis. The purpose of the pre-audiology concentration is to allow students interested in a career in audiology to follow a program of studies better tailored to their interest.

The graduate (M.S.) major is the professional degree. Its title, Speech-Language Pathology, suggests that it is the clinical degree in this field. Students completing the graduate program are qualified for clinical positions in communication disorders throughout the nation. Minnesota State University Moorhead's program is accredited by the Council on Academic Accreditation in Audiology and Speech Language Pathology (CAA) of the American Speech Language Hearing Association (ASHA).

Admission to any graduate program at Minnesota State University Moorhead is limited to those who qualify by virtue of their undergraduate grade point average, oral and written communication skills, Graduate Records Examination score (optional), and recommendations. Additional details about graduate study may be found in the *Graduate Bulletin*.

MSUM also offers the Speech-Language Pathology Post-Baccalaureate Program for students who have already earned an undergraduate degree but are now interested in the speech-language-hearing sciences. Please see program webpage for details.

## BS Degree in Speech, Language, Hearing Sciences

To receive the B.S. Degree in Speech-Language-Hearing Sciences, the student must meet the minimum university requirements and specific requirements for the program. Completion of 120 credits is required for this degree which includes the Liberal Arts and Sciences Curriculum.

Student Learning Outcomes

- Students will demonstrate knowledge of basic human communication and swallowing processes pertaining to normal and abnormal human development and acquired disorders and differences across the life span sufficient for entry into graduate programs.
- Students will demonstrate knowledge of cultural competence/sensitivity.
- Students will demonstrate evidence of knowledge of standards of ethical conduct.
- Students will demonstrate knowledge of processes used in research and of the integration of research principles into evidence-based clinical practice.
- Students will demonstrate skills in oral or other forms of communication sufficient for entry into graduate programs.
- Students will demonstrate skills in written or other forms of communication sufficient for entry into graduate programs.

**Program Delivery Mode**
Land plus: face-to-face where some online courses may be available or required

**Designated Writing Intensive Course for Major**
ENGL 387 - Technical Report Writing

**Core Requirements (43 credits)**
SLHS 101 Survey of Speech-Language-Hearing Disorders (3)
SLHS 150 Observation of the Practice in Speech

Language Hearing Sciences (2)
SLHS 201 Linguistic Phonetics (3)
SLHS 202 Anatomy and Physiology of Normal Speech and Hearing (3)
SLHS 204 Language Development (3)
SLHS 320 Hearing/Vestibular Disorders & Assessment (4)
SLHS 321 Speech Sound Disorders in Children (3)
SLHS 322 Language Disorders in Children (3)
SLHS 343 Clinical Procedures (3)
SLHS 427 Augmentative and Alternative Communication and Literacy Acquisition (3)
SLHS 402 Neuroanatomy/Physiology of Communication and Swallowing (3)
SLHS 421 Speech and Voice Science (3)
SLHS 473 Rehabilitation Audiology (4)
SLHS 491 Research Applications in SLHS (3)

**Related Requirements (6 credits)**
ENGL 387 Technical Report Writing (3)
MATH 234 Intro to Probability and Statistics (3)

**Electives (6 credits)**
Students must earn six elective credits from the following list of courses. These electives should be chosen in close consultation with a faculty advisor.

SLHS 301 Sign Language and Deaf Culture I (3)
SLHS 424 Childhood Stuttering and Related Disorders (3)
SLHS 446 Clinical Experience (3)
SLHS 482 Medical SLP (3)
SLHS 490 Topical Seminar in SLP (1-3)
SLHS 497 Individual Study (1-3)

**Pre-Audiology Emphasis (58 credits)**

Core Requirements (46 credits)
SLHS 101 Survey of Speech-Language-Hearing Disorders (3)
SLHS 150 Observation in the Practice of Speech Language Hearing Sciences (2)
SLHS 201 Linguistic Phonetics (3)
SLHS 202 Anatomy and Physiology Normal Speech and Hearing (3)
SLHS 204 Language Development (3)
SLHS 301 American Sign Language and Deaf Culture I (3)
SLHS 320 Hearing/Vestibular Disorders and Assessment (4)
SLHS 321 Speech Sound Disorders in Children (3)
SLHS 322 Language Disorders in Children (3)
SLHS 343 Clinical Procedures (3)
SLHS 402 Neuroanatomy/Physiology of Communication and Swallowing (3)
SLHS 421 Speech and Voice Science (3)
SLHS 446 Clinical Experience (3)
SLHS 473 Rehabilitation Audiology (4)
SLHS 491 Research Applications in SLHS (3)

Related Requirements (6 credits)
ENGL 387 Technical Report Writing (3)
MATH 234 Intro to Probability & Statistics (3) OR Math 134 Applied Statistics (3)

Restricted Electives (6 credits)
Six credits of elective courses from list below.

ACCT 230 Principles of Accounting I (3)
AT 210 Medical Terminology (1)
COMM 201 Interpersonal Communication (3)
COMM 211 Group and Team Communication (3)
COMM 285 Intercultural Communication (3)
ECON 202 Principles of Economics (3)
HLTH 125 First Aid and CPR (2)
MGMT 229 Start Your Own Business (3)
MGMT 260 Principles of Management (3)
PSY 310 Psychology of Women (3)
PSY 320 Social Psychology (3)
PSY 342 Learning and Memory (3)
PSY 345 Brain and Behavior (3)
PSY 348 Cognitive Psychology (3)
PSY 360 Sensation and Perception (3)
PSY 402 Child/Adolescent Psychology (3)
PSY 403 Adulthood and Aging (3)
SLHS 302 American Sign Language II (3)
SLHS 424 Childhood Stuttering and Related Disorders (3)
SLHS 427 Augmentative and Alternative Communication & Literacy Acquisition (3)
SLHS 482 Medical SLP (3)
SLHS 490 Topics in SLHS (3)
SPED 225 Individuals with Exceptionalities (3)

## Minor in Speech, Language, Hearing Sciences

24 credits

SLHS 101 Survey of Speech-Language-Hearing Disorders (3)
SLHS 201 Linguistic Phonetics (3)
SLHS 202 Anatomy and Physiology of Normal Speech and Hearing (3)
SLHS 204 Language Development (3)
SLHS 320 Hearing/Vestibular Disorders & Assessment (4)

Students must earn at least eight elective credits in SLHS courses. These courses are to be chosen in close consultation with a faculty advisor.

# *College of Science, Health & the Environment*

*The College of Science, Health, and the Environment provides a strong liberal studies foundation for all undergraduate programs that prepare students for fulfilling and productive careers in science, health and the environment. The College includes seven academic departments with award-winning faculty, state-of-the-art technology and resources, and outstanding programs that provide a solid foundation for advanced study or job-ready careers.*

*MSUM's College of Science, Health and the Environment courses are taught by highly educated faculty with advanced expertise in their fields, who provide innovative theory and application throughout their course delivery. Students and faculty have access to state-of-the-art facilities and technology for creative investigation, advanced research and overall academic excellence. The College is committed to developing and supporting comprehensive majors and programs that are of the highest quality and that meet regional workforce needs.*

## Anthropology & Earth Science

**King Hall 103, (218) 477-4217**
**Chair:** Karl Leonard
**Faculty:** Amanda Butler, Bruce Roberts, Erik Gooding, Karl Leonard, Paul Sando

### Anthropology

The Anthropology major provides students with an opportunity to understand people in different cultures, places, and times. Students are introduced to the vast range of human cultures, and to the relationship between human beings, their culture, and their environment. At Minnesota State University Moorhead, the major includes an introduction to the four sub-fields of anthropology - cultural anthropology, archaeology, biological anthropology, and linguistics, along with a menu of specialized courses in cultural anthropology and archaeology. The major includes two emphases, or tracks. One is in archaeology, for students wishing to focus on the study of ancient cultures; and the other is in cultural anthropology, for those students interested in the study of contemporary cultures from a cross-cultural and global perspective.

A minor in anthropology is also offered. The minor is comprised of the three introductory courses - Anthropology 110, 115, and 120 - one upper-level archaeology course, one upper-level cultural anthropology course, and two upper-level anthropology electives.

There are specialized learning experiences in the form of field and laboratory courses in archaeology, specialized training in geophysical prospection, cultural tours and field schools in ethnography. The field experiences are offered in summer sessions.

### Geosciences

The Geosciences major provides students with an opportunity to understand the earth, including processes that have shaped its past and those that will shape its future, and the relationships among place, landscape, climate, culture, economy, and people. Students can choose the Geosciences degree with the geoarchaeology emphasis; Environmental Geology; or Environmental Geography.

Geology is for those students interested in understanding how the earth works presently and what has happened in earth's ancient past. Students who choose this track will focus on our environment and its processes, stories of earth's past, and the formation and extraction of natural resources of the earth.

Geoarchaeology is for those students interested in understanding what geological evidence and reasoning reveal about past human cultures and activities on earth. Students who choose this track will focus on the geological, chemical, biological, and physical methods for interpreting artifacts, sediments, and environments important in understanding our human past.

Geographical Science is for those students interested in understanding the relationships among place, people, and environment. Specifically, this emphasis focuses on understanding why things occur where they do. Students who choose this track will focus on understanding the distribution of climate, cultures, and landscapes on earth, the reason for those distributions, and the way these interact with and affect humans and our economies. In addition, students will have the opportunity to gain knowledge in the application of Geographic Information Science (GIS) to solve spatial problems related to the real world.

There are several minor options: cultural ecology, environmental geography, environmental geology, and geosciences.

The Certificate in Geographic Information Sciences provides a focused area of study and basic competency in the theory, technology, and application of Geographic Information Science. Upon completion of the GIS certificate, students will have a broad understanding of the foundations of GIS and spatial analysis, and know how to apply that knowledge to solve spatial problems. In addition to serving our current student population, the certificate program is also intended to serve recent or returning graduates who wish to acquire specialized training to meet current market demands for GIS professionals.

The Certificate in Water Quality Science provides foundational science concepts and practical experience for addressing problems and solutions in a wide variety of water-related fields of work, including work with drinking water, wastewater, aquatic waters, ground water, surface hydrology, landfills, mining, and other environmental work. Note: This program addresses interdisciplinary science concepts important in a wide range of water-related jobs and should not be confused with government or industry-specific "water quality certifications" that address particular techniques and technologies within a narrower part of the water industry.

The ***Earth Science Education*** major is for those students interested in teaching earth science in grades 9-12, and meets the requirements for licensure in science (grades 5-8). Our Earth Science Education program is particularly strong in providing in-depth coverage of the wide range of earth Science subjects needed for Minnesota licensure, including physical geology, historical geology, meteorology, astronomy and planetary science, oceanography and interaction of people with the land.

## BA Degree in Anthropology

Anthropology is the study of humankind. It is comprised of four subfields – archaeology, biological/physical anthropology, cultural anthropology, and linguistic anthropology. At Minnesota State University Moorhead, anthropology majors begin acquiring exposure to the subfields of the discipline through introductory-level courses. Students then select an emphasis either in archaeology – the study of past societies and cultures – or cultural anthropology – the study of contemporary cultures and societies.
The archaeology emphasis provides students with learning opportunities in classroom and lab settings as well as through fieldwork. In summer field schools students learn standard excavation methods and applied geoarchaeological and geophysical methods. The archaeology emphasis prepares students to further their education in graduate school or to embark on careers in cultural resource management or interpretation.
Students in the cultural anthropology emphasis develop a broad perspective on what it means to be human through courses dealing with diverse contemporary global issues. A Midwest ethnographic field school and East African cultural study tour offer real world learning experiences. Those interested in teaching at the college/university level go on to graduate school while others find employment in international and domestic businesses, NGOs, and human service agencies.
To receive the B.A. Degree in Anthropology, the student must meet the minimum university requirements and specific requirements for the program. Completion of 120 credits is required for this degree, which includes the Liberal Arts and Sciences Curriculum.

Student Learning Outcomes

- Understand the content of the discipline.
- Apply the concepts of anthropology.
- Understand research methods.
- Ability to use resources effectively.

**Program Delivery Mode**
Land plus: face-to-face where some online courses may be available or required

**Designated Writing Intensive Course for Major**
ANTH 492 - Seminar in Anthropology

**Core Requirements (15 credits)**
This core is required of all students who major in Anthropology, including both emphases in Cultural Anthropology and Archaeology. Students must declare an emphasis for this program.

ANTH 110 Introduction to Cultural Anthropology (3)
ANTH 115 Introduction to Archaeology (3)
ANTH 120 Introduction to Physical Anthropology (3)
ANTH 248 Ideas of Culture (3)
ANTH 492 Seminar in Anthropology (3)

**Archaeology Emphasis (30 credits)**

Program Requirements (21 credits)

Students in the Archaeology emphasis must take:

ANTH 217 Rise of Civilization (3)
ANTH 300 Contemporary Archaeology (3)
ANTH 350 Geoarchaeology (3)

Additionally, students in the Archaeology emphasis must also take:

- One archaeology area course, selecting from:
  ANTH 315 North American Archaeology (3) **or**
  ANTH 337 The Maya (3)

- At least six credits in applied archaeology courses, selecting from:
  ANTH 301 Archaeological Prospection (3)
  ANTH 450 Field Work in Anthropology (6)
  ANTH 451 Archaeology Lab (3)
  ANTH 455 Field Methods in Geoarchaeology (4)

- One upper level cultural anthropology course at the 300+ level, selecting from:
  ANTH 306 Medical Anthropology (3)
  ANTH 307 Ecological Anthropology (3)
  ANTH 308 Migration and Human Adaptation (3)
  ANTH 311 American Indians and the Environment (3)
  ANTH 312 Anthropology of Tourism (3)
  ANTH 313 Understanding Contemporary Africa (3)
  ANTH 314 American Indian World Views (3)
  ANTH 316 Magic, Witchcraft and Belief (3)
  ANTH 333 Anthropology of Music (3)
  ANTH 360 Applied Ethnographic Methods (3)
  ANTH 380 Traditional Cultures (3)

Restricted Electives (9 credits)
Students in the Archaeology Emphasis must select **at least 9 credits of electives in the ANTH rubric at the 200 level or above**. These courses may not be selected from those already used to fulfill requirements of the major or emphasis.

**Cultural Anthropology (30 credits)**

Program Requirements (21 credits)
Students in the Cultural Anthropology emphasis must take:

ANTH 265 Language and Culture (3)
ANTH 360 Applied Ethnographic Methods (3)
ANTH 380 Traditional Cultures (3)

Additionally, students in the Cultural Anthropology emphasis must also take:

- One cultural anthropology area course, selecting from:
  ANTH 202 American Indian Cultures (3)
  ANTH 313 Understanding Contemporary Africa (3)

- Two upper level applied cultural anthropology courses, selecting from:
  ANTH 306 Medical Anthropology (3)
  ANTH 307 Ecological Anthropology (3)
  ANTH 308 Migration and Human Adaptation (3)
  ANTH 311 American Indians and the Environment (3)
  ANTH 312 Anthropology of Tourism (3)

- One upper level archaeology course at the 300+ level, selecting from:
  ANTH 300 Contemporary Archaeology (3)
  ANTH 301 Archaeological Prospection (3)
  ANTH 315 North American Archaeology (3)
  ANTH 337 The Maya (3)
  ANTH 350 Geoarchaeology (3)
  ANTH 450 Field Work in Anthropology (6)
  ANTH 451 Archaeology Lab (3)
  ANTH 455 Field Methods in Geoarchaeology (4)

Restricted Electives (9 credits)
Students in the Cultural Anthropology Emphasis **must select at least 9 credits of electives in the ANTH rubric at the 200 level or above.** These courses may not be selected from those already used to fulfill requirements of the major or emphasis.

## BS Degree in Earth Science Education

Earth Science Education provides students with understanding of concepts and practices within the broad fields of earth science, including physical geology, historical geology, environmental geology, weather and climate, oceanography, planetary science, and astronomy. Students engage in science as a practice, not merely a body of factual knowledge as is appropriate for preparation for teaching science in Minnesota. The degree includes science and education courses needed for licensure in the state of Minnesota for Middle School Science and High School Earth Science. Completion of 120 credits with a 2.5 GPA or higher is required for graduation with this degree which includes the Liberal Arts and Sciences Curriculum and Secondary Teaching Licensure Education requirements. Teacher licensure requirements must be met in order to receive a secondary teaching license in the state of Minnesota.

Student Learning Outcomes

- Ability to apply concepts and principles of geosciences in understanding earth processes and how human activities and earth processes interact.
- Competency in laboratory and field skills and ability to conduct a scientific investigation.
- Ability to use and respond to literature and research in geosciences, including: use of library and research data, ability to interpret results of a research investigation, comprehension of key ideas and evidence, understanding of arguments, and ability to communicate arguments and ideas in written and oral form.

Note: Due to the small number of students in this program, in practice we assess these students in the same cohort as our Environmental Geology majors who take many of the same core courses, and with the other majors in science education, using the assessment methods applied in those cases.

**Program Delivery Mode**
Land plus: face-to-face where some online courses may be available or required

**Designated Writing Intensive Course for Major**
GEOS 492 Senior Seminar and Research Capstone

**Core Requirements (68 credits)**

GEOS 109 Processes and History of a Dynamic Planet (3)
GEOS 109L Introductory Geology Lab (1)
GEOS 110 Water, Land, and People: An Introduction to Physical Geography (3)
GEOS 110L Water, Land, and People: An Introduction to Physical Geography Lab (1)
GEOS 209L Problems in Introductory Geology (2)
GEOS 303/303L Mineralogy and Petrology (3)
GEOS 305 Oceanography (3)
GEOS 315 Sedimentology and Stratigraphy (3)
GEOS 330 Elementary Meteorology (3)
GEOS 340 Economic and Environmental Geology (3)
GEOS 360 Planetary Science (3)
GEOS 361L Problems in Planetary Science (1)
GEOS 492 Senior Seminar and Research Capstone (3) (WI for major)
BIOL 440 Middle School/Secondary Science Teaching Methods (3) **or**
CHEM 440 Secondary Science Teaching Methods (3)
**Total: 35 credits**

Secondary Education Licensure Requirements
Students must earn at least a C- or higher in all licensure coursework.

COMM 100 Speech Communication (3)
ED 205 Introduction to Education (3)
ED 294 Educational Psychology (3)
ED 310 Social Foundations of Education (3)
ED 498 The Professional Teacher in the Classroom (3)
ED 448 Reading Study Skills in the Content Areas (3)
ED 461S Student Teaching: Secondary (12) **or**
ED 460S Student Teaching: Secondary (6) **and**
EECE 480E Student Teaching: Elementary (6) **or**
ED 461V Student Teaching: Secondary/K-12 (12)

SPED 413 Teaching in Inclusive Environments (3)
**Total: 33 credits**

Completion of this major meets curricular requirements for Minnesota licensure in Science (Grades 5-8) and Earth Science (Grades 9-12). Teacher licensure requirements must be met in order to receive a secondary teaching license in the state of Minnesota. The MN Professional Educator Licensing and Standards Board information can be found HERE.

Information on MSUM Teacher Licensure can be found HERE

**Related Requirements (28 credits)**
BIOL 111 Cell Biology (4)
BIOL 115 Organismal Biology (4)
CHEM 150/CHEM 150L General Chemistry I and Lab (4)
CHEM 210/CHEM 210 General Chemistry II and Lab (4)
MATH 261 Calculus I (4)
PHYS 160 Physics I with Algebra & Lab (4)
PHYS 161 Physics II with Algebra & Lab (4)

## BA Degree in Environmental Geography

Environmental geography provides students with an opportunity to understand the relationships among place, people, and environment through spatial correlations and mapping. It considers the distribution of climate, cultures, landscapes, water, minerals, hazards, economic activity and other features of the Earth, the reason for these distributions, and the way they affect and are affected by humans and our cultures.

Student Learning Outcomes

- Ability to apply spatial interpretive tools and principles to understanding the nature and distribution of features, cultures, and economies of the Earth.
- Ability to engage in modern map construction and interpretation, including GIS.
- Ability to analyze and interpret complex data involving human interactions with various factors of the Earth, including physical and environmental factors, cultural factors, and economic factors.
- Ability to use and interpret library and research data, including graphs and written text.
- Ability to interpret results of an investigation, including comprehension of key ideas and evidence, and understanding of arguments.
- Ability to communicate arguments and ideas in written and oral form to a variety of audiences with varied backgrounds and perspectives.

**Program Delivery Mode**
Land plus: face-to-face where some online courses may be available or required

**Designated Writing Intensive Course for Major**
GEOS 492 Senior Seminar and research capstone (includes 3 hours/week research (designated WI course) (3)

**Core Requirements (44 credits)**

Cultural, Economic, and Regional Geography (15 credits)
GEOS 111 Cultures and Regions (3)
GEOS 310 United States and Canada (3)
GEOS 320 Economic Geography (3)
GEOS 321 Sustainable Transportation (3)
GEOS 335 Environmental Geography and Conservation (3)

Physical Geography (12 credits)
GEOS 110 Water Land and People: An Introduction to Physical Geography (3)
GEOS 110L Water, Land, and People: An Introduction to Physical Geography Lab (1)
GEOS 211L Problems in Water, Land and People (2)
GEOS 305 Oceanography (3)
GEOS 330 Elementary Meteorology (3)

Geospatial Studies (14 credits)
GEOS 205 Thinking Spatially (3)
GEOS 207 GPS Field Techniques (3)
GEOS 210 Cartography (3)
GEOS 307 Introduction to GIS (3)
CM 200 Construction Surveying (1)
CM 200L Construction Surveying Lab (1)

Capstone (3 credits)
GEOS 492 Senior Seminar and Research Capstone (includes 3 hours/week research (3)

**Restricted Electives (12 credits )**
Select 4 courses from list:
GEOS 235 Geography of MN and ND (3)
GEOS 325/ANTH 325 Reading Landscape: Ways of Seeing (3)
GEOS 410 Eastern Europe and Russia (3)
ANTH 115 Introduction to Archaeology (3)
ANTH 217 The Rise of Civilization (3)
ANTH 300 Contemporary Archaeology (3)
ANTH 307 Ecological Anthropology (3)
ANTH 308 Migration and Human Adaptation (3)
ANTH 311 American Indians and the Environment (3)
ANTH 313 Understanding Contemporary Africa (3)
ANTH 314 American Indian World Views (3)
ANTH 317 Collapse (3)
CM 327 Sustainability in the Built Environment (3)

## BA Degree in Environmental Geology

Environmental Geology provides students with an opportunity to understand the physical systems and processes of the earth, including processes that have shaped its past and those that will shape its future, with a particular emphasis on those aspects of rock, water, air, soil, and life where humans and the earth interact. This degree provides a broad and general preparation in geology, focused especially on areas of environmental geology such as hydrology, geochemistry, paleoecology, and earth systems science. Completion of 120 credits is required for graduation with this degree which includes the Liberal Arts and Sciences Curriculum.
Student Learning Outcomes

- Understanding of concepts and principles of geosciences as they apply to interpreting Earth processes past and present.
- Ability to apply concepts and principles of geosciences to interpreting, predicting, or mitigating problems or challenges related to human activities and the earth.
- Competency in laboratory and field skills, including the ability to conduct a scientific investigation.
- Ability to communicate arguments and ideas in written and oral form to a variety of audiences with varied science backgrounds.

**Program Delivery Mode**
Land plus: face-to-face where some online courses may be available or required

**Designated Writing Intensive Course for Major**
GEOS 492 Senior Seminar and research capstone (includes 3 hours/week research (designated WI course) (3)

**Core Requirements (40 credits)**
GEOS 109 Processes & History of a Dynamic Planet (3)
GEOS 109L Introductory Geology Lab (1)
GEOS 110 Water, Land, and People: An Introduction to Physical Geography (3)
GEOS 110L Water, Land, and People: An Introduction to Physical Geography Lab (1)
GEOS 209L Problems in Introductory Geology (2)
GEOS 211L Problems in Water, Land, and People (2)
GEOS 303/GEOS 303L Mineralogy and Petrology w/Lab (3)
GEOS 304L Problems in Mineralogy and Petrology (2)
GEOS 315 Sedimentology and Stratigraphy (3)
GEOS 340 Economic and Environmental Geology (3)
GEOS 345 Principles of Geomorphology and Hydrology (3)
GEOS 370 Structural Geology and Mapping (3)
GEOS 415 Reading Geochemical Fingerprints (3)
GEOS 416 Paleontology (3)
GEOS 417L Problems in Geochemistry (2)
GEOS 492 Senior Seminar and Research Capstone (3) WI for major

**Program Requirements**
In addition to course requirements, students are expected to participate in the interdisciplinary seminar series related to environment and society and/or the Anthropology and Earth Science

seminar series, and to complete a research or internship experience.

**Related Requirements (12 credits)**
MATH 261 Calculus (4)
CHEM 150 General Chemistry I (3)
CHEM 150L General Chemistry I Lab (1)
BIOL 115/115L Organismal Biology w/Lab (4)

**Restricted Electives (12 credits)**
Students must choose one of the environmental breadth-and-depth course-package options listed below for 12 credits.

Water Science Option
CHEM 210 General Chemistry II (3)
CHEM 210L General Chemistry II Lab (1)
CHEM 380 Analytical Chemistry I (4)
BIOL 372 Aquatic Biology (4)

Sustainability Option
PSCI 378 Energy and the Environment (3)
SUST 200 Nature of Sustainability (3)
SUST 421 Systems Thinking (3)
SUST 432 Environmental Dilemmas (3)

Cultural Ecology Option
ANTH 307 Ecological Anthropology (3)
ANTH 311 American Indians and the Environment (3)
ANTH 317 Collapse (3)
GEOS 111 Cultures and Regions (3)

Environmental Geography Option
GEOS 305 Oceanography (3)
GEOS 330 Elementary Meteorology (3)
GEOS 320 Economic Geography (3)
GEOS 335 Environmental Geography and Conservation (3)

Archaeological Resource Option
ANTH 115 Introduction to Archaeology (3)
ANTH 300 Contemporary Archaeology (3)
ANTH 301 Archaeological Prospection (3)
ANTH 329 The Uses of the Past (3)

Geographic Information Science option (GIS Certificate courses)
GEOS 205 Thinking Spatially (3)
GEOS 207 GPS Field Techniques (3)
GEOS 210 Cartography (3)
GEOS 307 Introduction to GIS (3)

The following are strongly recommended:

CHEM 210 General Chemistry II (3)
CHEM 210L General Chemistry II Lab (1)
PHYS 200 Physics I with Calculus & Lab (4)
PHYS 201 Physics II with Calculus & Lab (4)
GEOS 307 Introduction to GIS (3)
GEOS 301 Archaeological Prospection (3) (or other applied geophysics course)
MATH 262 Calculus II (4)

6-8 credits of summer field camp (from a school as recommended through advising)

## BS Degree in Geosciences

To receive the B.S. Degree in Geosciences, the student must meet the minimum university requirements and specific requirements for the program. Completion of 120 credits is required for this degree which includes the Liberal Arts and Sciences Curriculum.

Student Learning Outcomes

- Ability to apply concepts and principles of geosciences in understanding Earth processes or relationships of people to the Earth.
- Competency in laboratory and field skills and ability to conduct a scientific investigation.
- Ability to use and respond to literature and research in geosciences, including: use of library and research data, ability to interpret results of an investigation in science or social science research, comprehension of key ideas and evidence, understanding of arguments, and ability to communicate arguments and ideas in written and oral form.

**Program Delivery Mode**
Land plus: face-to-face where some online courses may be available or required

**Designated Writing Intensive Course for Major**
GEOS 315 - Sedimentology and Stratigraphy

Students in this major must complete a minimum of 120 credits for the B.S. degree and select coursework from the Geoarchaeology emphasis.

**Geoarchaeology Emphasis (61 credits)**

Program Requirements
ANTH 115 Introduction to Archaeology (3)
ANTH 300 Archaeology (3)
GEOS 115/GEOS 115L Physical Geology and Lab (4)
GEOS 117/GEOS 117L Water, Land, and People and Lab (4)
GEOS 301 Archaeological Prospection (3)
GEOS 302 Mineralogy (3)
GEOS 303 Petrology (3)
GEOS 307 Introduction to GIS (3)
GEOS 315 Sedimentology and Stratigraphy (3)
GEOS 350 Geoarchaeology (3)
GEOS 415 Reading Geochemical Fingerprints (3)
GEOS 492 Senior Seminar (1)
GEOS 455 Field Methods in Geoarchaeology (4) **or** ANTH 450 Field Work in Anthropology (6)

Related Requirements (12 credits)
Students must take 12 credits from those listed below. Students may select from SOIL 210 Intro Soil Science (NDSU) or SOIL 444 Soil Genesis/Survey (NDSU).

BIOL 115/BIOL 115L Organismal Biology (4)
BIOL 275 Biostatistics (4)
BIOL 305 General Botany (4)
BIOL 345 Principles of Ecology (4)
CHEM 150/CHEM 150L General Chemistry I and Lab (4)
CHEM 210/CHEM 210L General Chemistry II and Lab (4)
GEOS 207 GPS Field Techniques (3)
GEOS 407 Spatial Analysis (4)
MATH 234 Introduction to Probability and Statistics (3)
MATH 261 Calculus I (4)
MATH 262 Calculus II (4)
PHYS 160 Physics I with Algebra & Lab (4) **or** PHYS 200 Physics I with Calculus & Lab (4)
PHYS 161 Physics II with Algebra & Lab (4) **or** PHYS 201 Physics II with Calculus & Lab (4)

Restricted Electives (9 credits)
Students must select at least nine credits form the listed courses.

Students should consult with their advisor in the department to determine which elective courses are most appropriate for their interests and plans.

ANTH 120 Introduction to Physical Anthropology (3)
ANTH 217 The Rise of Civilization (3)
ANTH 315 North American Archaeology (3)
ANTH 390 Topics in Anthropology (1-3)

GEOS 116 Historical Geology (3)
GEOS 205 Thinking Spatially (3)
GEOS 210 Cartography
GEOS 325 Reading Landscape: Ways of Seeing (3)
GEOS 340 Economic and Environmental Geology (3)
GEOS 370 Structural Geology and Mapping (3)
GEOS 390 Topics in Geosciences (1-3)
GEOS 394 Research in Geosciences (1-3)
GEOS 416 Paleontology (3)

## Minor in Anthropology

21 credits

**Core Requirements (9 credits)**
ANTH 110 Introduction to Cultural Anthropology (3)
ANTH 115 Introduction to Archaeology (3)
ANTH 120 Introduction to Physical Anthropology (3)

**Restricted Electives**
Students, in consultation with a faculty advisor, must take one upper level archaeology course, one upper level cultural anthropology course, and two upper level anthropology electives.

## Minor in Cultural Ecology

21 credits

Cultural ecology examines the interplay between culture and natural environment and provides a cultural perspective in understanding and addressing environmental issues.

**Core Requirements (15 credits)**
ANTH 307 Ecological Anthropology (3)
ANTH 311 American Indians and the Environment (3)
ANTH 317 Collapse (3)
GEOS 111 Cultures and Regions (3)
GEOS 335 Environmental Geography and Conservation (3)

**Restricted Electives (6 credits)**
Six credits must be taken from the following:

ANTH 202 American Indian Cultures (3)
ANTH 313 Contemporary Africa (3)
ANTH 325 Reading Landscape (3)
GEOS 235 Geography of MN and ND (3)
PSY 324 Environmental Psychology (3)

## Minor in Environmental Geography
18 credits

Environmental geography provides students with an opportunity to understand the relationships among place, people, and environment through spatial correlations and mapping, with a particular focus on those aspect of the physical and cultural landscape that address the environment, including water quality, climate, sustainability, cultural perspectives, and economics.

**Core Requirements (12 credits)**
GEOS 110 Water, Land, and People: An Introduction to Physical Geography (3)
GEOS 110L Water, Land, and People: An Introduction to Physical Geography Lab (1)
GEOS 211L Problems in Water, Land, and People (2)
GEOS 320 Economic Geography (3)
GEOS 335 Environmental Geography and Conservation (3)

**Restricted Electives (9 credits)**
Students must take 3 additional credits in physical geography from either:
GEOS 305 Oceanography (3) **OR** GEOS 330 Elementary Meteorology (3)

Plus 6 credits from the following:

GEOS 321 Sustainable Transportation (3)
ANTH 307 Ecological Anthropology (3)
ANTH 308 Migration and Human Adaptation (3)
ANTH 311 American Indians and the Environment (3)
ANTH 317 Collapse (3)

## Minor in Environmental Geology
18 credits

A minor in Environmental Geology prepares students to address problems and find solutions in surface and ground water issues, natural resources, landscape evolution, geochemistry, and other aspects of geological work.

**Core Requirements (12 credits)**
GEOS 109 Processes and History of a Dynamic Planet (3)
GEOS 109L Introductory Geology Lab (1)
GEOS 110 Water, Land, and People: An Introduction to Physical Geography (3)
GEOS 110L Water, Land, and People: An Introduction to Physics Geography Lab (1)
GEOS 209L Problems in Introductory Geology (2)
GEOS 211L Problems in Water, Land, and People (2)

**Restricted Electives (9 credits)**
Nine credits must be taken from the following:

GEOS 301 Archaeological Prospection (3)
GEOS 303 Mineralogy and Petrology (3)
GEOS 304L Problems in Mineralogy and Petrology (2)
GEOS 305 Oceanography (3)
GEOS 315 Sedimentology and Stratigraphy (3)
GEOS 330 Elementary Meteorology (3)
GEOS 340 Economic and Environmental Geology (3)
GEOS 345 Principles of Geomorphology and Hydrology (3)
GEOS 360 Planetary Science (3)
GEOS 361L Problems in Planetary Science (1)
GEOS 415 Reading Geochemical Fingerprints (3)
GEOS 416 Paleontology (3)
GEOS 417L Problems in Geochemistry (2)
GEOS 370 Structural Geology and Mapping (3)

## Minor in Geosciences

18 credits

A minimum of 18 credits must be taken from among Geosciences courses. At least 6 credits must be taken from Geosciences courses at the 100 level, and 9 credits must be at the 300 level or above. Students interested in geology, geoarchaeology, or geographical science should consult with a department faculty member.

## Certificate in Geographic Information Science

12 credits

Certificate provides a focused area of study and basic competency in the theory, technology, and application of Geographic Information Science.

Student Learning Outcomes

- Use computer software to manage, manipulate, analyze, and display spatial data.
- Operate GPS devices to record field data and import into a computer environment.
- Make professional maps in digital and hardcopy formats.
- Access spatial data online and convert hardcopy data to digital format.
- Address practical problems with critical spatial thinking abilities and provide GIS-based solutions.

GEOS 205 Thinking Spatially (3)
GEOS 207 GPS Field Techniques (3)
GEOS 210 Cartography (3)
GEOS 307 Introduction to GIS (3)

## Certificate in Water Quality Science

28 credits

The water quality certificate provides foundational science concepts and practical experience for addressing problems and solutions in a wide variety of water-related fields of work, including work with drinking water, wastewater, aquatic waters, ground water, surface hydrology, landfills, mining, and other environmental work. Note: This program addresses interdisciplinary science concepts important in a wide range of water-related jobs and should not be confused with government or industry-specific "water quality certifications" that address particular techniques and technologies within a narrower part of the water industry.

Student Learning Outcomes

- Ability to analyze complex water-related problems using analytical, experimental, or field data.
- Understanding of principles related to water chemistry and analysis, water-biosphere interactions, limnology, water-sediment interactions, and movement and fate of water contaminants in both surface and subsurface environments.
- Ability to evaluate and communicate complex water-related issues, including within the context of varied societal and political perspectives.

**Core Requirements (10 credits)**

*SUST 421 Systems Thinking (3) **OR** SUST 432 Environmental Dilemmas (3)
*GEOS 340 Economic and Environmental Geology (3)
++MATH 227 Survey of Differential Calculus with Algebra (4) **OR** BIOL 275 Biostatistics (4)

*Note: TWO of the following courses should be completed BEFORE taking SUST 421, SUST 432, or GEOS 340 for this certificate program: BIOL 115, CHEM 210, PHYS 201, and GEOS 109/109L.

++Note: alternative calculus or statistics courses might be substituted with advisor approval

Restricted Electives

*NOTE: Courses in the rubric of a student's major cannot count toward completion of either of the two categories of restricted electives below.

**Restricted Electives (10 credits)***

BIOL 115/BIOL 115L Organismal Biology and Lab (4)
BIOL 490 Topics in Biology: Oceanarium (1)
CHEM 150 General Chemistry I (3)
CHEM 150L General Chemistry I Lab (1)
CHEM 210 General Chemistry II (3)
CHEM 210L General Chemistry II Lab (1)
CHEM 275 General Chemistry Research Based Lab (3)
GEOS 109 Processes & History of a Dynamic Planet (3)
GEOS 109L Introductory Geology Lab (1)
GEOS 110 Water, Land, and People: An Introduction to Physical Geography (3)
GEOS 110L Water, Land, and People: An Introduction to Physical Geography Lab (1)
GEOS 209L Problems in Introductory Geology (2)
GEOS 211L Problems in Water, Land, and People (2)
PHYS 200 Physics I with Calculus & Lab (4)
PHYS 201 Physics II with Calculus & Lab (4)
SUST 200 Nature of Sustainability (3)

AND

**Restricted Electives (8 credits)***

BIOL 321 Invertebrate Zoology (3)
BIOL 345 Principles of Ecology (4)
BIOL 350 Microbiology (4)
BIOL 372 Aquatic Biology (4)
CHEM 375 Team-based Chemistry Research (4)
CHEM 380 Analytical Chemistry I (4)
GEOS 345 Principles of Geomorphology and Hydrology (3)
GEOS 415 Reading Geochemical Fingerprints (3)
GEOS 417L Problems in Geochemistry (2)
SUST 421 Systems Thinking (3) (if not taken for the requirements)
SUST 432 Environmental Dilemmas (3) (if not taken for the requirements)

## Biosciences

**Hagen Hall 407, (218) 477-2572**
**Chair:** Andrew "Mazz" Marry
**Faculty:** Michael Aho, Sara Anderson, Ellen Brisch, Jonathan Bell-Clement, Andrew Marry, Chris Merkord, Sumali Pandey, Taylor Schmit, Adam Stocker, Donna Bruns Stockrahm, Alison Wallace, Brian Wisenden, Patricia Wisenden

**A Unique Place to Learn**

We are the best regional choice to follow a specialized degree path to fully prepare you for careers in Human Health (Medical and Dental school, Physician Assistant School, Physical Therapy, Chiropractic School, Occupational Therapy, Pharmacy Programs, Optometry School, Public Health), Molecular Biology, Animal and Environmental Sciences (Veterinary School, Fish and Wildlife, Resource Management) and graduate school for human, animal, plant, coastal, marine, & terrestrial environmental research.

Students will receive individualized attention in classes, labs, and field work. These are taught by dedicated, accessible, faculty members and get hands-on experience using sophisticated equipment similar to that found in the job market and graduate school. You are encouraged to get involved with research, outreach, and student organizations.

Faculty-student research collaborations deepens your learning experience and result in presentations at regional, national, and international meetings and publications in international scholarly peer-reviewed journals. Our graduates are also well prepared to enter the job market within the private sector, local, state, or federal government agencies, non-profit, and academia.

The Biosciences Department offers a Bachelor of Arts degree in Biology and a Bachelor of Science degree with four emphasis areas.

**The B.A. degree in Biology** gives students a broad foundation in the biological sciences without emphasis toward any of the areas of specialty represented by the more career-oriented B.S. degrees in Biology. This open configuration allows flexibility in designing a degree path that does not align well with any of the B.S. degrees.

**The B.S. degree in Biology** prepares students for a wide variety of careers in sub-disciplines in the biological sciences: human health, medicine, evolutionary biology, conservation biology, natural resource management, public health, and

environmental health. Students gain skills relevant to field work, lab work in clinical or industry settings, research, and data analysis. Graduates can seek employment within the private sector, local, state, or federal government agencies, non-profit organizations, and academia. This degree is suitable for students planning to pursue a post-baccalaureate graduate degree or apply for admission to a pre-professional school such as medical, physician's assistant, physical therapy, occupational therapy, dental, chiropractic, or veterinary school.

For those interested in pursuing graduate school in the health science we offer:

- A 3+3 Human Health Sciences BS Articulation Agreement for Chiropractic school with Northwestern University
- An accelerated 5-year Biology (BS) Human Health Sciences and a Masters of Healthcare Administration at MSUM.
- Minnesota State University Moorhead students receive preference for acceptance into the University of Jamestown Physical Therapy Program https://ptcasdirectory.apta.org/522/University-of-Jamestown

**The B.S. in Biology** degree is organized into four areas of emphasis:

- **Human Health Sciences** emphasis prepares students for professional schools in a variety of fields in human health including physical therapy, occupational therapy and chiropractic medicine, among many others.
- **Medical and Cellular Biology** emphasis provides an excellent preparation for students for pre- health professional schools such as medical school and/or graduate school in biomedical and cellular biology programs.
- **Ecology and Evolutionary Biology** emphasis prepares students for careers in natural resource management, organismal and ecosystem processes and preparation for advanced study in these areas. This is also the best path for those interested in Veterinary Medicine.
- **One Health** emphasis follows guidance from the Center for Disease Control and the World Health Organization to holistically integrate the study of human, animal, and environmental health to effectively address zoonotic infectious disease and environmental change challenges at the local and global levels.

The **Bachelor of Science in Life Science Education** prepares students for a career in teaching biology in middle and high school. Teaching licensure is available in life sciences (grades 9-12). This licensure meets the requirements for licensure in science (grades 5-8).

**In General:** Biosciences faculty advise students in a number of pre-professional areas such as pre-medicine, pre-optometry, pre-veterinary medicine, pre-physical and occupational therapy, pre-physician's assistant, pre-chiropractic, and pre-respiratory care.

Our facilities include an anatomical theater where students learn human anatomy through cadaver dissection. Human Anatomy with cadaver dissection is a unique opportunity in an undergraduate setting and is an excellent preparation for all health professional schools. Our lab is shared with the University of Jamestown Physical Therapy Program allowing for informal opportunities to visit their PT program.

MSUM Regional Science Center is a ~400-acre parcel of land located 15 min east of Moorhead. The MSUM RSC is part of the Bluestem Prairie Complex – Minnesota's largest remnant tallgrass prairie comprising lands owned by MSUM, The Nature Conservancy and the Department of Natural Resources. It provides MSUM students with a rich opportunity to study prairie, riparian forest habitat and river communities.

The MSUM Oceanarium provides students an opportunity to study marine biology, work towards a Marine Aquarists Certificate and learn how to

engage K12 students and the general public in conversations about conservation of marine ecosystems.

Students from other majors can minor in general Biology or minor in Biology in one of the areas of concentration.

## BA Degree in Biology

This degree gives students a broad foundation in the biological sciences without emphasis toward any of the areas of specialty represented by the more career-oriented B.S. degrees in Biology. This open configuration allows flexibility in designing a degree path that does not align well with any of the B.S. degrees. To receive the B.A. Degree in Biology, the student must meet the minimum university requirements and specific requirements for the program. Completion of 120 credits is required for this degree, which includes the Liberal Arts and Sciences Curriculum.

Student Learning Outcomes

- Understand fundamental biological concepts at the molecular, cellular, organismal, and ecosystem levels.
- Recognize evolution by natural selection as a unifying theme across biological disciplines.
- Demonstrate competence in lab and field skills and application of discipline-specific skills professional skills.
- Apply critical thinking skills and quantitative tools to evaluate biological information.
- Practice effective oral and written communication of scientific ideas in the manner of professional biologists.
- Acquire and refine research skills starting in introductory and advanced courses.
- Have the opportunity to participate in faculty-mentored independent research.
- Acquire multicultural and ethical perspectives in the advancement and application of science in society.

**Program Delivery Mode**
Land plus: face-to-face where some online courses may be available or required

**Designated Writing Intensive Course for Major**
Any of the following: BIOL 348 - Evolutionary Biology BIOL 360 - Cellular & Molecular Physiology BIOL 365 - Developmental Biology BIOL 372 - Aquatic Biology BIOL 406 - DNA as Destiny BIOL 423 - Advanced Gross Anatomy BIOL 430 - Immunobiology BIOL 478 - Research Design

**Core Requirements (15-16 credits)**
BIOL 111 Cell Biology (4)
BIOL 115 Organismal Biology (4)
BIOL 341 Genetics (4)

Select one course from this list:
BIOL 345 Principles of Ecology (4)
BIOL 236 Foundations of Microbiology (4)
BIOL 350 Microbiology (4)
BIOL 348 Evolutionary Biology (3)

**Related Requirements (19 credits)**
Math (3-5 credits) MATH 127 or above.

Chemistry (8 credits)
CHEM 150/CHEM 150L General Chemistry I (4)
CHEM 210/CHEM 210L General Chemistry II (4)
*CHEM 275 can be taken in place of either CHEM 150L or CHEM 210L

Physics (8 credits)
PHYS 160 Physics I with Algebra & Lab (4) and PHYS 161 Physics II with Algebra & Lab (4) **OR**
PHYS 200 Physics I with Calculus & Lab (4) and PHYS 201 Physics II with Calculus & Lab (4)

**Restricted Electives (22 credits)**
22 credits of Electives required. At least 12 credits must be at the 300-level or above. One credit maximum from BIOL 497

BIOL 100 Issues in Human Biology (3)
BIOL 104 Human Biology (3)
BIOL 109 Biology Today (3)
BIOL 125 Human Anatomy and Physiology I (4)
BIOL 126 Human Anatomy and Physiology II (4)
BIOL 190 Topics in Biology (1-4)
BIOL 236 Foundations of Microbiology (4)
BIOL 248 Introduction to Public Health (3)

BIOL 275 Quantitative Biology (4)
BIOL 290 Topics in Biology (1-4)
BIOL 300 Biology of Women (3)
BIOL 305 General Botany (4)
BIOL 308 Pacific Northwest Ecology (3)
BIOL 310 Science of Brewing (3)
BIOL 311 Neurobiology (4)
BIOL 321 Invertebrate Zoology (3)
BIOL 322 Vertebrate Zoology (4)
BIOL 323 Human Anatomy (4)
BIOL 326 Minnesota Plant Identification (4)
BIOL 335 Tropical Conservation Biology (3)
BIOL 345 Principles of Ecology (4)
BIOL 346 An Ecological Perspective (3)
BIOL 347 Plant Physiology (4)
BIOL 348 Evolutionary Biology (3)
BIOL 349 Human Physiology (4)
BIOL 350 Microbiology (4)
BIOL 360 Cellular and Molecular Physiology (4)
BIOL 365 Developmental Biology (4)
BIOL 370 Exploring Biology (3)
BIOL 372 Aquatic Biology (4)
BIOL 385 Molecular Biology (3)
BIOL 385L Molecular Biology Lab (1)
BIOL 390 Topics in Biology (1-4)
BIOL 400/CHEM 400 Biochemistry I (3)
BIOL 402 Principles of Animal Behavior (3)
BIOL 405/CHEM 405 Biochemistry Laboratory I (1)
BIOL 406 DNA as Destiny: Genetics and Society (3)
BIOL 410/CHEM 410 Biochemistry II (3)
BIOL 423 Advanced Gross Anatomy (4)
BIOL 430 Immunobiology (4)
BIOL 438 Medical Microbiology (3)
BIOL 440 Middle School/Secondary Science Teaching Methods (3)
BIOL 455 Wildlife Ecology (4)
BIOL 460 Medical Laboratory Clinical Education (6-12)
BIOL 469 Internship (1-12)
BIOL 470 Undergraduate Laboratory Teaching (1)
BIOL 478 Research Design (3)
BIOL 490 Topics in Biology (1-4)
BIOL 494 Undergraduate Research in Biology (1)
**was BIOL 497*

## BS Degree in Biology

This degree prepares students for a wide variety of careers in a biological sub-discipline such as human health, medicine, evolutionary biology, conservation biology, natural resource management, public health, and environmental health. Students gain skills relevant to field work, lab work in clinical or industry settings, research, and data analysis. Graduates can seek employment within the private sector, local, state, or federal government agencies, non-profit organizations, and academia. This degree is suitable for students planning to pursue an advanced graduate degree or apply for admission to a pre-professional school such as medical, physician's assistant, physical therapy, occupational therapy, dental, chiropractic, or veterinary school. To receive the B.S. Degree in Biology, the student must meet the minimum university requirements and specific requirements for one of the four emphases offered within program. Completion of 120 credits is required for this degree, which includes the Liberal Arts and Sciences Curriculum.

Student Learning Outcomes

- Understand fundamental biological concepts at the molecular, cellular, organismal, and ecosystem levels.
- Recognize evolution by natural selection as a unifying theme across biological disciplines.
- Apply critical thinking skills and quantitative tools to evaluate biological information.
- Practice effective oral and written communication of scientific ideas in the manner of professional biologists.
- Demonstrate competence in lab and field skills
- Apply discipline-specific professional skills.
- Acquire basic research skills in introductory courses.
- Refine research skills in advanced courses including independent research.
- Acquire multicultural and ethical perspectives in the advancement and application of science in society.

**Program Delivery Mode**
Land plus: face-to-face where some online courses may be available or required

**Designated Writing Intensive Course for Major**
Any of the following: BIOL 305 General Botany with Lab (4) BIOL 348 Evolutionary Biology (3) BIOL 360 Cellular & Molecular Physiology with Lab (4) BIOL 365 Developmental Biology with Lab (4) BIOL 372 Aquatic Biology (4) BIOL 423 Advanced Gross Anatomy with Lab (4) BIOL 430 Immunobiology with Lab (4) BIOL 478 Research Design (3) BCBT 461 Biotechniques: Nucleic Acids and Bioinformatics (3) BCBT 463 Genomics, Proteomics, and Beyond (3) BCBT 464 Histology and Detection (3)

**Core Requirements (31 credits)**
Students must choose an emphasis

Biology:
BIOL 111/BIOL 111L Cell Biology with Lab (4)
BIOL 115/BIOL 115L Organismal Biology with Lab (4)
BIOL 275 Biostatistics (4)

Chemistry:
CHEM 150 General Chemistry I (3)
CHEM 210 General Chemistry II (3)

Chemistry Lab (choose two courses):
CHEM 150L General Chemistry I Lab (1)
CHEM 210L General Chemistry II Lab (1)
CHEM 275 General Chemistry Research Based Lab (3)

Physics I (choose one course):
PHYS 160 Physics I with Algebra & Lab (4)
PHYS 200 Physics I with Calculus & Lab (4)

Physics II (choose one course):
PHYS 161 Physics II with Algebra & Lab (4)
PHYS 201 Physics II with Calculus & Lab (4)

Math (choose one course):
MATH 142 Precalculus (5)
MATH 143 Trigonometry (3)
MATH 261 Calculus I (4)

**Human Health Sciences Emphasis (32 credits)**

Program Requirements (16 credits)
BIOL 323/BIOL 323L Human Anatomy with Lab (4)
BIOL 349/BIOL 349L Human Physiology with Lab (4)
PSY 113 General Psychology (3)
PSY 202 Developmental Psychology (3)

Restricted Electives (18 credits)
At least 12 credits must be 300+. At least 12 credits must come from courses in the BIOL rubric. A maximum of 3 credits of BIOL 469 and 3 credits of BIOL 497 or BCBT 397 may count towards the restricted electives credit total.

AT 210 Medical Terminology (1)
EXS 320 Anatomical Kinesiology (3)
EXS 420 Biomechanics (3)
PSY 261 Personality (3)
PSY 463 Abnormal Psychology (3)
SOC 110 Introduction to Sociology (3)

**Medical and Cellular Biology Emphasis (31 credits)**

Program Requirements (16 credits)
BIOL 341/BIOL 341L Genetics with Lab (4)
BIOL 350/BIOL 350L Microbiology with Lab (4)
CHEM 350 Organic Chemistry I (3)
CHEM 355 Organic Chemistry I Lab (1)
CHEM 360 Organic Chemistry II (3)
CHEM 365 Organic Chemistry II Lab (1)

Restricted Electives (15 credits)
A maximum of 3 credits of BIOL 469 and 3 credits of BIOL 494 or BCBT 394 may count towards the restricted electives credit total.

Choose at least three courses from the following list:
BIOL 248 Introduction to Public Health (3)
BIOL 311 Neurobiology (4)
BIOL 323/BIOL 323L Human Anatomy with Lab (4)
BIOL 348 Evolutionary Biology (3)
BIOL 349/BIOL 349L Human Physiology with Lab (4)
BIOL 360/BIOL 360L Cellular and Molecular Physiology with Lab (4)
BIOL 365/BIOL 365L Developmental Biology with Lab (4)
BIOL 385 Molecular Biology (3) and BIOL 385L Molecular Biology Lab (1)
BIOL 400/CHEM 400 Biochemistry I (3) and BIOL 405/CHEM 405 Biochemistry Laboratory I (1)
BIOL 410/CHEM 410 Biochemistry II (3)

BIOL 423/BIOL 423L Advanced Gross Anatomy with Lab (4)
BIOL 430/BIOL 430L Immunobiology with Lab (4)
BIOL 438 Medical Microbiology (3)
BIOL 469 Internship (1-3)
BIOL 478 Research Design (3)
BIOL 494 Undergraduate Research in Biology (1-3)
BCBT 394 Biochemistry & Biotechnology Research (1-3)
BCBT 463 Proteomics and Genomics (3)
BCBT 464 Histology and Cell Culture (3)

Choose one course from the following list:
BIOL 305/BIOL 305L General Botany with Lab (4)
BIOL 308 Pacific Northwest Ecology (3)
BIOL 321 Invertebrate Zoology (3)
BIOL 322 Vertebrate Zoology (4)
BIOL 326 Minnesota Plant Identification (4)
BIOL 335 Tropical Conservation Biology (3)
BIOL 345 Principles of Ecology (4)
BIOL 348 Evolutionary Biology (3)
BIOL 372 Aquatic Biology (4)
BIOL 402 Principles of Animal Behavior (3)
BIOL 455 Wildlife Ecology (4)

**Ecology and Evolutionary Biology Emphasis (35 credits)**

Program Requirements (17 credits)
BIOL 341/BIOL 341L Genetics with Lab (4)
BIOL 345 Principles of Ecology (4)
BIOL 348 Evolutionary Biology (3)
BIOL 478 Research Design (3)

Students are required to take a single three-credit course in in one of the following courses:
BIOL 469 Internship (3)
BIOL 494 Undergraduate Research in Biology (3)

BIOL 469 and BIOL 494 must be taken as single 3-credit block, and a maximum of 3 credits of BIOL 469 may count towards the restricted elective credit total. Students should consult with their academic advisor to find an internship or research opportunity.

Restricted Electives (18 credits)
Students interested in geospatial analysis should consider completing the Certificate in Geographic Information Science.

18 credits. Course selections should be made in close consultation with student's academic advisor, depending upon the career goals of the student.

Developmental and Molecular Biology (choose one):
BIOL 365 Developmental Biology (4)
BIOL 385 Molecular Biology (3)

Suborganismal Biology (choose one):
BIOL 311 Neurobiology (4)
BIOL 347 Plant Physiology (4)
BIOL 349 Human Physiology (4)
BIOL 360 Cellular and Molecular Physiology (4)

Organismal Biology (choose one):
BIOL 305 General Botany (4)
BIOL 321 Invertebrate Zoology (3)
BIOL 322 Vertebrate Zoology (4)
BIOL 350 Microbiology (4)

Populations and Ecosystems (choose one):
BIOL 308 Pacific Northwest Ecology (3)
BIOL 326 Minnesota Plant Identification (4)
BIOL 335 Tropical Conservation Biology (3)
BIOL 372 Aquatic Biology (4)
BIOL 402 Principles of Animal Behavior (3)
BIOL 455 Wildlife Ecology (4)

Additional Options to meet 18 credit total:
BIOL 385L Molecular Biology lab (1)
BIOL 469 Internship (1-3)
BIOL 494 Undergraduate Research in Biology (1-3)

**One Health Emphasis (38 credits)**

Program Requirements (20 credits)
BIOL 248 Introduction to Public Health (3)
BIOL 345 Principles of Ecology (4)
BIOL 438 Medical Microbiology (3)

Choose one microbiology course:
BIOL 236/BIOL 236L Introduction to Microbiology (4)
BIOL 350/BIOL 350L Microbiology (4)

Choose one course:
PSY 113 General Psychology (3)
SOC 110 Intro to Sociology (3)
SUST 200 Nature of Sustainability (3)

Choose one global health course:
HSAD 218 Introduction to Healthcare and Global Health (3)
NURS 485 Global Health Perspectives (3)
BIOL 335 Tropical Conservation Biology (3)

Restricted Electives (18 credits)
18 credits. Course selections should be made in close consultation with student's academic advisor, depending upon the career goals of the student.

Choose at least one course related to the human health component of One Health:
BIOL 349 Human Physiology (4)
BIOL 430 Immunobiology (4)

Choose at least one course related to the animal health component of One Health:
BIOL 321 Invertebrate Zoology (3)
BIOL 322 Vertebrate Zoology (4)
BIOL 455 Wildlife Ecology (4)

Choose at least one course related to the environmental health component of One Health:
SUST 432 Environmental Dilemmas (3)
SUST 421 Systems Thinking (3)
BIOL 305 General Botany (4)
BIOL 347 Plant Physiology (4)
BIOL 335 Tropical Conservation Biology (3)
BIOL 372 Aquatic Biology (3)

Choose at least one course related to professional skill development:
BIOL 469 Internship (3-6)
BIOL 494 Independent Research (3)
HSAD 326 Epidemiology and Introductory Biostatistics (3)
POL 341 Public Policy (3)
GEOS 205 Thinking Spatially (3)
GEOS 307 Intro to GIS (3)
BIOL 478 Research Design (3)

BIOL 469 and BIOL 497 must be taken as single 3-credit block and a maximum of 6 credits of BIOL 469 may count towards the restricted elective credit total. Students should consult with their academic advisor to find an internship or research opportunity.

Other restricted elective course options:
ANTH 306 Medical Anthropology (3)
ANTH 307 Ecological Anthropology (3)
BIOL 236/BIOL 236L Foundations of Microbiology & Lab (4)
BIOL 323/BIOL 323L Human Anatomy & Lab (4)
BIOL 341 Genetics (4)
BIOL 348 Evolutionary Biology (3)
BIOL 335 Tropical Conservation Biology (3)
CHEM 102 Environmental Chemistry (3)
CHEM 304 The Environment and You (3)
CHEM 350 Organic Chemistry I (3)
CHEM 380 Analytical Chemistry I (4)
CHEM 400 Biochemistry (3)
HIST 374 Plagues and Peoples (3)
HLTH 305 Intro to Nutrition (3)
HLTH 330 Disease Prevention (3)
HSAD 218 Intro to Healthcare and Global Health (3)
NURS 485 Global Health Perspectives (3)
PHIL 311 Morals and Medicine (3)
POL 340 Public Administration (3)
POL 345 Environmental Politics (3)
PSCI 378 Energy and the Environment (3)
PSY 113 General Psychology (3)
PSY 324 Environmental Psychology (3)
PSY 275 Behavior Modification (3)
SW 250 Introduction to Social Welfare and Social Work (3)
SOC 110 Intro to Sociology (3)
SOC 319 Society and the Environment (3)
SOC 375 Sociology of Health and Medicine (3)
WS 330 Gender, Justice, and the Environment (3)

## BS Degree in Life Science Education

A BS in Life Science Education will prepare students to facilitate student learning and understanding of living things, including biology, botany, genetics, chemistry, ecology and more. Students will also shape the lives and minds of young people, prepare citizens for understanding environmental and health challenges, and inspire the next generation of future scientists. This degree prepares you for two licenses: general science in the middle school (grades 5-8) and life science in the high school

(grades 9-12). To receive the B.S. Degree in Life Science Education, the student must meet the minimum university requirements and specific requirements for the program. Completion of 120 credits with a 2.5 GPA or above is required to graduate with this degree which includes the Liberal Arts and Sciences Curriculum and Secondary Teaching licensure Education requirements. Teacher licensure requirements must be met in order to receive a secondary teaching license in the state of Minnesota.

Student Learning Outcomes

- Understand fundamental biological concepts at the molecular, cellular, organismal, and ecosystem levels.
- Recognize evolution by natural selection as a unifying theme across biological disciplines.
- Demonstrate competence in general lab and field skills and be introduced to discipline-specific skills and their professional applications.
- Apply critical thinking skills and quantitative tools to evaluate biological information.
- Practice effective oral and written communication of scientific ideas in the manner of professional biologists.
- Acquire basic research skills in introductory courses and refine these skills in advanced courses including independent research.
- Recognize the value of multicultural and ethical perspectives in the advancement and application of science in human society.

**Program Delivery Mode**
Land plus: face-to-face where some online courses may be available or required

**Designated Writing Intensive Course for Major**
BIOL 348 Evolutionary Biology

**Core Requirements (66 credits)**
BIOL 111 Cell Biology (4)
BIOL 115 Organismal Biology (4)
BIOL 341 Genetics (4)
BIOL 345 Principles of Ecology (4)
BIOL 347 Plant Physiology (4)
BIOL 348 Evolutionary Biology (3)
BIOL 350 Microbiology (4)
BIOL 440 Middle School/Secondary Science Teaching Methods (3)
BIOL 494 Undergraduate Research in Biology (3)
**Total: 33 credits**

Secondary Education Licensure Requirements
Students must earn at least a C- or higher in all licensure coursework.

COMM 100 Speech Communication (3)
ED 205 Introduction to Education (3)
ED 294 Educational Psychology (3)
ED 310 Social Foundations of Education (3)
ED 498 The Professional Teacher in the Classroom (3)
ED 448 Reading Study Skills in the Content Areas (3)
ED 461S Student Teaching: Secondary (12) **or**
ED 460S Student Teaching: Secondary (6) **and**
EECE 480E Student Teaching: Elementary (6) **or**
ED 461V Student Teaching: Secondary/K-12 (12)
SPED 413 Teaching in Inclusive Environments (3)
**Total: 33 credits**

Teacher licensure requirements must be met in order to receive a secondary teaching license in the state of Minnesota. The MN Professional Educator Licensing and Standards Board information can be found HERE.

Information on MSUM Teacher Licensure can be found HERE

**Related Requirements (32 credits)**
Math (6 credits) - must be MATH 127 or above

Chemistry (8 credits)
CHEM 150/CHEM 150L General Chemistry I (4)
CHEM 210/CHEM 210L General Chemistry II (4)
*CHEM 275 can be taken in place of either CHEM 150L or CHEM 210L

Physics (8 credits)
PHYS 160 Physics I with Algebra & Lab (4) and PHYS 161 Physics II with Algebra & Lab (4) **OR**

PHYS 200 Physics I with Calculus & Lab (4) and
PHYS 201 Physics II with Calculus & Lab (4)

Geosciences (10 credits)
GEOS 115 Physical Geology (4)
GEOS 116 Historical Geology (3)
GEOS 360 Planetary Science (3)

## Minor in Health and Medical Sciences

19-20 credits

**Core Requirements (16 credits)**

BIOL 111 Cell Biology (4)
BIOL 115 Organismal Biology (4)
BIOL 323 Human Anatomy (4)
BIOL 349 Human Physiology (4)

**Restricted Electives (3-4 credits)**

Select one of the following courses:

BIOL 236 Foundations of Microbiology (4)
BIOL 311 Neurobiology (4)
BIOL 341 Genetics (4)
BIOL 350 Microbiology (4)
BIOL 360 Cellular and Molecular Biology (4)
BIOL 365 Developmental Biology (4)
BIOL 385 Molecular Biology (3)
BIOL 385L Molecular Biology Lab (1)

## Minor in Biology

20 credits

**Core Requirements (8 credits)**

BIOL 111 Cell Biology (4)
BIOL 115 Organismal Biology (4)

**Restricted Electives (12 credits)**

Select 12 credits from the list below:

BIOL 100 Issues in Human Biology (3)
BIOL 104 Human Biology (3)
BIOL 109 Biology Today (3)
BIOL 125 Human Anatomy and Physiology I (4)
BIOL 126 Human Anatomy and Physiology II (4)
BIOL 190 Topics in Biology (1-4)
BIOL 236 Foundations of Microbiology (4)
BIOL 248 Introduction to Public Health (3)
BIOL 275 Quantitative Biology (4)
BIOL 290 Topics in Biology (1-4)
BIOL 300 Biology of Women - (3)
BIOL 305 General Botany (4)
BIOL 308 Pacific Northwest Ecology (3)
BIOL 310 Science of Brewing (3)
BIOL 311 Neurobiology (4)
BIOL 321 Invertebrate Zoology (3)
BIOL 322 Vertebrate Zoology (4)
BIOL 323 Human Anatomy (4)
BIOL 326 Minnesota Plant Identification (4)
BIOL 335 Tropical Conservation Biology (3)
BIOL 341 Genetics (4)
BIOL 345 Principles of Ecology (4)
BIOL 346 An Ecological Perspective (3)
BIOL 347 Plant Physiology (4)
BIOL 348 Evolutionary Biology (3)
BIOL 349 Human Physiology (4)
BIOL 350 Microbiology (4)
BIOL 360 Cellular and Molecular Physiology (4)
BIOL 365 Developmental Biology (4)
BIOL 370 Exploring Biology (3)
BIOL 372 Aquatic Biology (4)
BIOL 385 Molecular Biology (3)
BIOL 385L Molecular Biology Lab (1)
BIOL 390 Topics in Biology (1-4)
BIOL 400/CHEM 400 Biochemistry I (3)
BIOL 402 Principles of Animal Behavior (3)
BIOL 405/CHEM 405 Biochemistry Laboratory I (1)
BIOL 406 DNA as Destiny: Genetics and Society (3)
BIOL 410/CHEM 410 Biochemistry II (3)
BIOL 423 Advanced Gross Anatomy (4)
BIOL 430 Immunobiology (4)
BIOL 438 Medical Microbiology (3)
BIOL 440 Middle School/Secondary Science Teaching Methods (3)
BIOL 455 Wildlife Ecology (4)
BIOL 460 Medical Laboratory Clinical Education (6-12)
BIOL 469 Internship (1-12)
BIOL 470 Undergraduate Laboratory Teaching - (1)
BIOL 478 Research Design (3)
BIOL 490 Topics in Biology (1-4)
BIOL 494 Undergraduate Research in Biology (1)

## Minor in Ecology and Evolutionary Biology

21-24 credits

**Core Requirements (12 credits)**

BIOL 111 Cell Biology (4)

BIOL 115 Organismal Biology (4)
BIOL 345 Principles of Ecology (4)

**Restricted Electives (9-12 credits)**
Select three courses from the list:

BIOL 305 General Botany (4)
BIOL 321 Invertebrate Zoology (3)
BIOL 322 Vertebrate Zoology (4)
BIOL 341 Genetics (4)
BIOL 348 Evolutionary Biology (3)
BIOL 350 Microbiology (4)
BIOL 372 Aquatic Biology (4)
BIOL 402 Principles of Animal Behavior (3)
BIOL 455 Wildlife Ecology (4)

## Minor in Public Health

22 credits

This minor introduces students from majors other than Biology to the fundamentals of public health. This minor augments the credentials of students from any major and prepares them for application to a Master of Public Health program should they decide to pursue public health as a career.

**Core Requirements (10 credits)**
BIOL 248 Introduction to Public Health (3)
BIOL 275 Quantitative Biology (4)
HSAD 326 Epidemiology & Introductory Biostatistics (3)

**Restricted Electives (12 credits)**
BIOL 236 Foundations of Microbiology (4)
BIOL 350 Microbiology (4)
BIOL 406 DNA as Destiny: Genetics and Society (3)
BIOL 430 Immunobiology (4)
BIOL 438 Medical Microbiology (3)
HIST 374 Plagues & Peoples: Disease and the Environment (3)
HLTH 305 Introduction to Nutrition (3)
HLTH 330 Disease Prevention (2)
HSAD 218 Introduction to Healthcare and Global Health (3)
PHIL 311 Morals and Medicine (3)
PSY 113 General Psychology (3)
SOC 110 Introduction to Sociology (3)
SUST 432 Environmental Dilemmas (3)

## Certificate - Marine Aquarist

17 credits

Incremental advancement in mastery of skills and knowledge of husbandry of marine organisms housed at the MSUM Oceanarium, understanding of marine ecosystem function, and the relationship between human activities and resilience of the biosphere conferred by functions of the world's oceans.

Student Learning Outcomes

- Direct experience with maintaining a marine facility, teaching the general public about conservation of marine biodiversity.
- Knowledge of major groups of marine organisms and marine habitats.
- Awareness of general physiochemical properties of water, abiotic factors that affect the distribution and availability of nutrients required for biological productivity.
- Knowledge of political policies that regulate use of marine resources.

BIOL 115/BIOL 115L Organismal Biology (4) (LASC 3)
BIOL 372 Aquatic Biology (4) (WI)
GEOS 305 Oceanography (3) (LASC 10)
SUST 200 Nature of Sustainability (3) (LASC 2)
BIOL 130 Oceanarium I (1) (Aquarist I status)
BIOL 230 Oceanarium II (1) (Aquarist II status)
BIOL 330 Oceanarium III (1) (Aquarist III status)

## Chemistry and Biochemistry

**Hagen Hall 407, (218) 477-2136**
**Chair:** Richard Lahti
**Faculty:** Landon Bladow, Jeff Bodwin, Craig Jasperse, Richard Lahti, Kathryn Russart, Michelle Tigges

Minnesota State University Moorhead's Chemistry and Biochemistry Department is on the Approved List of the American Chemical Society (ACS). Less than half of the nation's chemistry departments meet the rigorous standards set by the ACS Committee on Professional Training for faculty,

library resources, laboratory space, equipment, and curriculum. A major strength of the chemistry program is its emphasis on undergraduate research. Four different degrees are available:

- B.S. degree in Chemistry (ACS certified);
- B.A. degree in Chemistry with emphasis in pre-health & biochemistry or business;
- B.S. degree in Biochemistry and Biotechnology with emphasis in biochemistry and molecular biology or emphasis in biological chemistry (ACS certified);
- B.S. degree in Chemistry Education.

There are also minors offered in biochemistry and biotechnology and chemistry.

The **B.S. degree in Chemistry** is a rigorous four-year course of study designed for those students who plan to enter graduate programs in chemistry and its related fields, a career in chemical industries, or other chemical professions. ACS is an organization of professional chemists that, among other activities, sets standards for chemistry education.

The **B.A. degree in Chemistry** can be earned with emphases in either pre-health & biochemistry or business. The degree can also be taken without an emphasis, which allows flexibility for students to include the related field courses in their chemistry program that best fit their future career, graduate school or professional school needs.

The **B.S. degree in Chemistry Education** is part of the certification process to teach chemistry in Minnesota high schools. Students completing this major may also be certified to teach middle school science, grades 5-8. In addition to completing the chemistry core curriculum and middle school science coursework, students must also complete courses in professional (teacher) education.

The **B.S. degree in Biochemistry and Biotechnology** is a degree that combines studies in both biology and chemistry. This major is designed to teach advanced laboratory skills in the major areas of biochemistry and biotechnology. It provides a laboratory-rich, research-based experience that emphasizes hands-on learning. It includes the application of techniques used in the study of enzymology, cellular physiology, molecular biology and immunology.

The Biochemistry and Biotechnology Degree has two emphases: 1) Biochemistry and Molecular Biology and 2) Biological Chemistry. All students completing a BCBT Major must complete one of the two emphases.

The BCBT Major is designed to be a research-based, laboratory-intensive program focusing on training undergraduates in both the theories and practices of the discipline. All BCBT majors are required to participate in a small-group, research project mentored by one of the BCBT faculty members. Upon graduating with a BCBT Major approximately 30% of students attend medical school, 30% go directly to work in industry, and 40% attend graduate school.

BCBT Majors are strongly encouraged to participate in research outside of their coursework as early as possible in their academic career.

**Engineering/Chemistry Dual Degree**
Students have the option of obtaining a dual degree in chemistry (from MSUM) and engineering by completing the engineering curriculum at a university of their choice. The student completes the core chemistry and liberal arts and sciences curriculum requirements in their first three years at MSUM. The student then completes a final two years at a university completing coursework in their chosen engineering field. It is expected students in the dual degree program will obtain both a chemistry and engineering degree in five years. The dual degree advisor will work with individual students to ensure requirements are met for both programs. Information on the engineering dual degree can be found HERE.

## BS Degree in Biochemistry & Biotechnology

To receive the B.S. Degree in Biochemistry and Biotechnology, the student must meet the minimum university requirements and specific

requirements for the program and complete one of two emphases. These options allow you to customize your degree based on your future career goals. You will develop well-rounded skills in problem-solving, analysis, and written and oral communication and gain undergraduate research experience that will competitively prepare you for professional school (such as medical, pharmacy, dental, optometry, etc.), graduate school, or a career in industry. Completion of 120 credits is required for this degree which includes the Liberal Arts and Sciences Curriculum.

Student Learning Outcomes

- Demonstrate basic knowledge and understanding of the fundamentals of experimental and theoretical chemistry and/or biochemistry.
- Demonstrate skills in analytical thinking, problem solving and application of scientific methods to experimental data.
- Demonstrate skills in laboratory operations including techniques and instrumentation.
- Demonstrate ability to design and conduct chemical or biochemical research projects.
- Effectively communicate chemistry or biochemistry in written and oral formats.

**Program Delivery Mode**
Land plus: face-to-face where some online courses may be available or required

**Designated Writing Intensive Course for Major**
The Writing Intensive course required by this major is: BCBT 461 Nucleic Acids & Bioinformatics (3) or BCBT 463 Proteomics & Advanced Chromatography (3) or BCBT 464 Histology & Detection (3)

**Core Requirements (66 credits)**
Students must also complete an emphasis in either Biological Chemistry or Biochemistry & Molecular Biology.

BIOL 111/BIOL 111L Cell Biology with lab (4)
BIOL 115/BIOL 115L Organismal Biology with lab (4)
BIOL 341/BIOL 341L Genetics with lab (4)
BIOL 385/BIOL 385L Molecular Biology with lab (4)
CHEM 150 General Chemistry I (3)
CHEM 210 General Chemistry II (3)
CHEM 350/CHEM 355 Organic Chemistry I with lab (4)
CHEM 360/CHEM 365 Organic Chemistry II with lab (4)
CHEM 400/CHEM 405 Biochemistry I with lab (4)
CHEM 410 Biochemistry II (3)
BCBT 220 Survey of BCBT Research and Methodology (1)
BCBT 360 Team-based BCBT Research (3)
MATH 261 Calculus I (4)

General chemistry lab (choose 2 courses)

CHEM 150L General Chemistry Lab I (1)
CHEM 210L General Chemistry Lab II (1)
CHEM 275 General Chemistry Research Based Lab (3)

**Physiology** (choose one course)

BIOL 347/BIOL 347L Plant Physiology with lab (4)
BIOL 349/BIOL 349L Human Physiology with lab (4)
BIOL 360/BIOL 360L Cellular and Molecular Physiology with lab (4)

**Biology** (choose one course)

BIOL 323/BIOL 323L Human Anatomy with lab (4)
An additional physiology elective (BIOL 347, BIOL 349, **or** BIOL 360) (4)
BIOL 350/BIOL 350L Microbiology with lab (4)
BIOL 365/BIOL 365L Developmental Biology with lab (4)
BIOL 430 Immunobiology (4)

**Biotechniques** (choose one course)

BCBT 461 Nucleic Acids & Bioinformatics (3)
BCBT 463 Proteomics & Advanced Chromatography (3)
BCBT 464 Histology & Detection (3)

**Physics I** (choose one course)

PHYS 160 Physics I with Algebra & Lab (4)
PHYS 200 Physics I with Calculus & Lab (4)

**Physics II** (choose one course)

PHYS 161 Physics II with Algebra & Lab (4)
PHYS 201 Physics II with Calculus & Lab (4)

Students must also complete an emphasis in either Biological Chemistry or Biochemistry & Molecular Biology.

**Biological Chemistry Emphasis (21 credits)**

Program Requirements (18 credits)
CHEM 300 Inorganic Chemistry I (3)
CHEM 380 Analytical Chemistry I with lab (4)
CHEM 450 Physical Chemistry: Thermodynamics (3)
BCBT 450 Biophysical Chemistry (3)
BCBT 494 Senior Research Thesis (1) **was BCBT 497*
MATH 262 Calculus II (4)

Restricted Electives (3 credits)
At least three additional credits of a restricted elective from the list below

BCBT 394 BCBT Research (1) **was BCBT 397*
BCBT 461 Biotechniques: Nucleic Acids and Bioinformatics (3)
BCBT 463 Proteomics and Advanced Chromatography (3)
BCBT 464 Histology and Detection (3)

BIOL 275 Biostatistics (4)
BIOL 323/BIOL 323L Human Anatomy with lab (4)
BIOL 347/BIOL 347L Plant Physiology with lab (4)
BIOL 349/BIOL 349L Human Physiology with lab (4)
BIOL 350/BIOL 350L Microbiology with lab (4)
BIOL 360/BIOL 360L Cellular and Molecular Physiology with lab (4)
BIOL 365/BIOL 365L Developmental Biology with lab (4)
BIOL 430/BIOL 430L Immunobiology with lab (4)

CHEM 394 Undergraduate Research (1) **was CHEM 397*
CHEM 375 Team-based Chemistry Research (4)
CHEM 420 Inorganic Chemistry II (3)
CHEM 460 Physical Chemistry: Quantum Chemistry & Kinetics (3)
CHEM 465 Physical Chemistry Lab (1)
CHEM 469 Internship (1-12)
CHEM 480 Analytical Chemistry II (3)

**Biochemistry & Molecular Biology Emphasis (16 credits)**

Program Requirements (13 credits)
**Chemistry** (choose one)
CHEM 300 Inorganic Chemistry I (3) **or**
CHEM 380 Analytical Chemistry I with lab (4)

**Physical Chemistry** (choose one)
CHEM 450 Physical Chemistry: Thermodynamics (3) **or**
BCBT 450 Biophysical Chemistry (3)

**Biology**
Any 300-level Biology course except for Biology 300, 346, 370, 406, or 440

**Math** (choose one)
MATH 262 Calculus II (4) **or**
BIOL 275 Biostatistics (4)

Restricted Electives (3 credits)
At least three additional credits of a restricted elective from the list below

BCBT 394 BCBT Research (1) **was BCBT 397*
BCBT 450 Biophysical Chemistry (3)
BCBT 461 Biotechniques: Nucleic Acids and Bioinformatics (3)
BCBT 463 Proteomics and Advanced Chromatography (3)
BCBT 464 Histology and Detection (3)
BCBT 494 Senior Research Thesis (1) **was BCBT 497*

BIOL 323/BIOL 323L Human Anatomy with lab (4)
BIOL 347/BIOL 347L Plant Physiology with lab (4)
BIOL 349/BIOL 349L Human Physiology with lab (4)
BIOL 350/BIOL 350L Microbiology with lab (4)
BIOL 360/BIOL 360L Cellular and Molecular Physiology with lab (4)
BIOL 365/BIOL 365L Developmental Biology with lab (4)
BIOL 430/BIOL 430L Immunobiology with lab (4)

CHEM 300 Inorganic Chemistry I (3)
CHEM 375 Team-based Chemistry Research (4)
CHEM 380 Analytical Chemistry I with lab (4)
CHEM 394 Undergraduate Research (1) **was CHEM*

*397*
CHEM 420 Inorganic Chemistry II (3)
CHEM 450 Physical Chemistry: Thermodynamics (3)
CHEM 460 Physical Chemistry: Quantum Chemistry & Kinetics (3)
CHEM 465 Physical Chemistry Lab (1)
CHEM 469 Internship (1-12)
CHEM 480 Analytical Chemistry II (3)

## BA Degree in Chemistry

The B.A. degree in Chemistry consists of a core of chemistry classes and a number of elective credits that can be tailored to the goals of the student through advising. This flexibility allows students to include the related field courses (physics, biology, earth science, mathematics, computer science) in their chemistry program that best fit their future career, graduate school or professional school needs. To receive the B.A. Degree in Chemistry, the student must meet the minimum university requirements and specific requirements for the program. Completion of 120 credits is required for this degree which includes the Liberal Arts and Sciences Curriculum.

Student Learning Outcomes

- Demonstrate basic knowledge and understanding of the fundamentals of experimental and theoretical chemistry and/or biochemistry.
- Demonstrate skills in analytical thinking, problem solving and application of scientific methods to experimental data.
- Demonstrate skills in laboratory operations including techniques and instrumentation.
- Demonstrate ability to design and conduct chemical or biochemical research projects.
- Effectively communicate chemistry or biochemistry in written and oral formats.

**Program Delivery Mode**
Land plus: face-to-face where some online courses may be available or required

**Designated Writing Intensive Course for Major**
CHEM 375 Team Based Chemistry Research (4)

**Core Requirements (27-28 credits)**
CHEM 150 General Chemistry I (3)
CHEM 150L General Chemistry Laboratory I (1)
CHEM 210 General Chemistry II (3)
CHEM 210L General Chemistry Laboratory II (1)
CHEM 294 Introduction to Research (1) **was CHEM 297*
CHEM 350 Organic Chemistry I (3)
CHEM 355 Organic Chemistry I Laboratory (1)
CHEM 375 Team-based Chemistry Research (4)
CHEM 400 Biochemistry I (3)
CHEM 405 Biochemistry Laboratory I (1)

One Analytical Chemistry Class
CHEM 380 Analytical Chemistry I (4)
CHEM 480 Analytical Chemistry II (3)

One Physical Chemistry Class
CHEM 450 Physical Chemistry: Thermodynamics (3)
CHEM 460 Physical Chemistry: Quantum Chemistry & Kinetics (3)
BCBT 450 Molecular and Biophysical Chemistry (3)

*Students may replace either CHEM 150L (1) or CHEM 210L (1) with CHEM 275 (3).

**Related Requirements (15-16 credits)**
15-16 total credits depending on 2nd math class chosen

Pick 1: PHYS 160 Physics I with Algebra & Lab (4) **or** PHYS 200 Physics I with Calculus & Lab (4)
Pick 1: PHYS 161 Physics II with Algebra & Lab (4) **or** PHYS 201 Physics II with Calculus & Lab (4)
MATH 261 Calculus I (4)
Pick 1: MATH 262 Calculus II (4) or BIOL 275 Biostatistics (4) or MATH 234 Introduction to Probability and Statistics (3)

**Restricted Electives (22 credits)**
Students must take 2 additional classes (6 credits) from the list below:

CHEM 300 Inorganic Chemistry I (3)
CHEM 360 Organic Chemistry II (3)
CHEM 410 Biochemistry II (3)
CHEM 420 Inorganic Chemistry II (3)
BCBT 463 Proteomics and Advanced Chromatography (3)

Students must choose sixteen (16) credits of electives from AST, MATH, BIOL, CHEM, PHYS, GEOS or CSIS at the 300 level or higher in consultation with advisor.

**Pre-Health and Biochemistry Emphasis (26 credits)**
In addition to completing the core and related requirements above, students with this emphasis must also complete the following:

Restricted Electives I:
Students must take 2 additional classes (6 credits) from the list below*:*
CHEM 300 Inorganic Chemistry I (3)
CHEM 360 Organic Chemistry II (3)
CHEM 410 Biochemistry II (3)
CHEM 420 Inorganic Chemistry II (3)
BCBT 463 Proteomics and Advanced Chromatography (3)

Restricted Electives II**:**
Students must earn 20 credits of electives and at least 12 must be upper division (300 level or higher) from the list below:

BIOL 111/BIOL 111L Cell Biology (4)
BIOL 115/BIOL 115L Organismal Biology (4)
BIOL 323/BIOL 323L Human Anatomy (4)
BIOL 349/BIOL 349L Human Physiology (4)
BIOL 341/BIOL 341L Genetics (4)
BIOL 350/BIOL 350L Microbiology (4)
BIOL 360/BIOL 360L Cellular and Molecular Physiology (4)
BIOL 365/BIOL 365L Developmental Biology (4)
BIOL 385/BIOL 385L Molecular Biology (4)
BIOL 430 Immunobiology (3)
BIOL 430L Immunobiology Lab (1)
BIOL 494 Undergraduate Research in Biology (1-3) **was BIOL 497*
BCBT 461 Biotechniques: Nucleic Acids and Bioinformatics (3)
BCBT 463 Proteomics and Advanced Chromatography (3)
BCBT 464 Histology and Detection (3)
BCBT 394 Biochemistry and Biotechnology Research (1-3) **was BCBT 397*
CHEM 360 Organic Chemistry II (3)
CHEM 365 Organic Chemistry II lab (1)
CHEM 394 Undergraduate Research (1-3) **was CHEM 397*

**Business Emphasis**
In addition to completing the core requirements, students with this emphasis must complete the following requirements.

Program Requirements (28 credits)
ACCT 230 Principles of Accounting I (3)
ACCT 231 Principles of Accounting II (3)
CHEM 400 Biochemistry I (3)
CHEM 405 Biochemistry Laboratory I (1)
CSIS 104 Spreadsheet and Database Applications (3)
ECON 202 Principles of Economics I: Micro (3)
ECON 204 Principles of Economics II: Macro (3)
FINC 340 Financial Management (3)
MGMT 260 Principles of Management (3)
MKTG 270 Principles of Marketing (3)

Related Requirements (6+ credits)
MATH 229 Topics in Calculus (3) **or**
MATH 261 Calculus I (4)
MATH 234 Introduction to Probability and Statistics (3)

Restricted Electives (12 credits)
Students must earn three upper division (300 or higher) elective credits in Chemistry. They must also earn three upper division elective credits in Chemistry or Biosciences OR four credits in Physics 160 or 200. Students must also earn six upper division elective credits from either Marketing, Finance, Management.

## BS Degree in Chemistry

To receive the B.S. Degree in Chemistry, the student must meet the minimum university requirements and specific requirements for the program. Completion of 120 credits is required for this degree which includes the Liberal Arts and Sciences Curriculum.

Student Learning Outcomes

- Demonstrate basic knowledge and understanding of the fundamentals of experimental and theoretical chemistry and/or biochemistry.

- Demonstrate skills in analytical thinking, problem solving and application of scientific methods to experimental data.
- Demonstrate skills in laboratory operations including techniques and instrumentation.
- Demonstrate ability to design and conduct chemical or biochemical research projects.
- Effectively communicate chemistry or biochemistry in written and oral formats.

**Program Delivery Mode**
Land plus: face-to-face where some online courses may be available or required

**Designated Writing Intensive Course for Major**
CHEM 375 Team-based Chemistry Research

**Core Requirements (48 credits)**
CHEM 150/CHEM 150L General Chemistry I with lab (4)
CHEM 210/CHEM 210L General Chemistry II with lab (4)

*Students may replace either CHEM 150L (1) OR CHEM 210L (1) with CHEM 275 (3)*

CHEM 294 Introduction to Research (1) **was CHEM 297*
CHEM 300 Inorganic Chemistry I (3)
CHEM 350 Organic Chemistry I (3)
CHEM 355 Organic Chemistry I Lab (1)
CHEM 360 Organic Chemistry II (3)
CHEM 365 Organic Chemistry II Lab (1)
CHEM 375 Team-based Chemistry Research (4)
CHEM 380 Analytical Chemistry I with Lab (4)
CHEM 394 Undergraduate Research (2) **was CHEM 397*
CHEM 400 Biochemistry I (3)
CHEM 405 Biochemistry Laboratory I (1)
CHEM 420 Inorganic Chemistry II (3)
CHEM 450 Physical Chemistry: Thermodynamics (3)
CHEM 460 Physical Chemistry: Quantum Chemistry & Kinetics (3)
CHEM 465 Physical Chemistry Laboratory (1)
CHEM 480 Analytical Chemistry II (3)
CHEM 494 Senior Thesis (1) **was CHEM 497*

**Related Requirements (16 credits)**
MATH 261 Calculus I (4)
MATH 262 Calculus II (4)
PHYS 160 Physics I with Algebra & Lab (4) **and** PHYS 161 Physics II with Algebra & Lab (4) **OR**
PHYS 200 Physics I with Calculus & Lab (4) **and** PHYS 201 Physics II with Calculus & Lab (4)

## BS Degree in Chemistry Education

To receive the B.S. Degree in Chemistry Education, the student must meet the minimum university requirements and specific requirements for the program. Completion of 120 credits with a 2.5 GPA or higher is required to graduate with this degree which includes the Liberal Arts and Sciences Curriculum and Secondary Teaching licensure Education requirements. Teacher licensure requirements must be met in order to receive a secondary teaching license in the state of Minnesota.

Student Learning Outcomes

- To demonstrate basic knowledge and understanding of the fundamentals of experimental and theoretical chemistry and/or biochemistry.
- To demonstrate skills in analytical thinking, problem solving and application of scientific methods to experimental data.
- To demonstrate skills in laboratory operations including techniques and instrumentation.
- Demonstrate ability to design and conduct chemical or biochemical research projects.
- To effectively communicate chemistry or biochemistry in written and oral formats.

**Program Delivery Mode**
Land plus: face-to-face where some online courses may be available or required

**Designated Writing Intensive Course for Major**
CHEM 375 Team-Based Chemistry Research

**Core Requirements (62 credits)**
Students must fulfill all teacher licensure

requirements in addition to the chemistry content core, which adds 33 credits.

**Chemistry**
CHEM 150 General Chemistry I (3)
CHEM 210 General Chemistry II (3)
CHEM 294 Introduction to Research (1) **was CHEM 297*
CHEM 375 Team-Based Chemistry Research (4) * designated WI course for the major *
CHEM 350 Organic Chemistry I (3)
CHEM 355 Organic Chemistry I Lab (1)
CHEM 400 Biochemistry I (3)
CHEM 440 Secondary Science Teaching Methods (3)
Total 21 credits

Pick 2 of the following (2-4 credits):

- CHEM 150L General Chemistry I lab (1)
- CHEM 210L General Chemistry II Lab (1)
- CHEM 275 General Chemistry Research Based Lab (3)

Pick 1 of the following (3 credits):

- CHEM 450 Physical Chemistry: Thermodynamics (3)
- CHEM 460 Physical Chemistry: Quantum Chemistry & Kinetics (3)
- BCBT 450 Molecular and Biophysical Chemistry (3)

Pick 1 of the following (3-4 credits)

- CHEM 380 Analytical Chemistry I with Lab (4)
- CHEM 480 Analytical Chemistry II (3)

**Total: 29-32 credits**

Secondary Education Licensure Requirements
Students must earn at least a C- or higher in all licensure coursework.

COMM 100 Speech Communication (3)
ED 205 Introduction to Education (3)
ED 294 Educational Psychology (3)
ED 310 Social Foundations of Education (3)
ED 498 The Professional Teacher in the Classroom (3)
ED 448 Reading Study Skills in the Content Areas (3)
ED 461S Student Teaching: Secondary (12) **or**
ED 460S Student Teaching: Secondary (6) **and**
EECE 480E Student Teaching: Elementary (6) **or**
ED 461V Student Teaching: Secondary/K-12 (12)
SPED 413 Teaching in Inclusive Environments (3)
**Total: 33 credits**

Teacher licensure requirements must be met in order to receive a secondary teaching license in the state of Minnesota. The MN Professional Educator Licensing and Standards Board information can be found HERE.

Information on MSUM Teacher Licensure can be found HERE

**Related Requirements (25 credits)**
BIOL 111 Cell Biology (4)
BIOL 115 Organismal Biology (4)
GEOS 115 Physical Geology (4)
GEOS 116 Historical Geology (3)
GEOS 360 Planetary Science (3)
MATH 261 Calculus I (4)

Pick 1 of the following classes:

- MATH 262 Calculus II (4)
- MATH 234 Introduction to Probability and Statistics (3)
- BIOL 275 Biostatistics (4)

PHYS 160 Physics I with Algebra & Lab (4) **OR** PHYS 200 Physics I with Calculus & Lab (4)
PHYS 161 Physics II with Algebra & Lab (4) **OR** PHYS 201 Physics II with Calculus & Lab (4)

## Minor in Biochemistry & Biotechnology

22 credits

BIOL 385/385L Molecular Biology with lab (4)
CHEM 400/405 Biochemistry I with lab (4)
CHEM 410 Biochemistry II (3)
BCBT 461 Nucleic Acids & Bioinformatics (3) OR
BCBT 463 Proteomics & Advanced Chromatography (3)

BCBT elective - at least 8 additional credits, no more than 1 credit from any combination of 397/497 courses

**At least 8 additional credits from the following list:**
**(no more than 3 credits from any combination of 394/494/469 courses)**

BCBT 394 BCBT Research (1) **was BCBT 397*
BCBT 494 Senior Thesis (1) **was BCBT 497*
BCBT 461 Biotechniques: Nucleic Acids and Bioinformatics (3)
BCBT 463 Proteomics & Advanced Chromatography (3)
BCBT 469 Internship (1)
BIOL 347/BIOL 347L Plant Physiology with lab (4)
BIOL 349/BIOL 349L Human Physiology with lab (4)
BIOL 360/BIOL 360L Cellular and Molecular Physiology with lab (4)

## Minor in Chemistry

22 credits

CHEM 150/CHEM 150L General Chemistry I and Lab (4)
CHEM 210/CHEM 210L General Chemistry II and Lab (4)
CHEM 350 Organic Chemistry I (3)
CHEM 355 Organic Chemistry I Lab (1)

Students must earn ten credits in Chemistry electives at the 300 level or above, not to include CHEM 304.

## Middle School Science Optional Licensure

45 credits

Completion of this program allows the student to apply for a Minnesota grades 5-8 general science teaching license. This license is not a stand-alone license but may be added to any existing teaching license as per the Board of Teaching regulations.

CHEM 150/CHEM 150L General Chemistry I & Lab (4)
CHEM 210/CHEM 210L General Chemistry II & Lab (4)
PHYS 160 Physics I with Algebra & Lab (4) **OR** PHYS 200 Physics I with Calculus & Lab (4)
PHYS 161 Physics II with Algebra & Lab (4) **OR** PHYS 201 Physics II with Calculus & Lab (4)
BIOL 111/BIOL 111L Cell Biology & Lab (4)
BIOL 115/BIOL 115L Organismal Biology & Lab (4)
GEOS 115/GEOS 115L Physical Geology & Lab (4)
GEOS 116 Historical Geology (3)
GEOS 360 Planetary Science (3)
BIOL 440/CHEM 440/PHYS 440 Secondary Science Teaching Methods (3)
ED 350M Middle Level Field Experience (1)
ED 460M Middle Level Student Teaching (4)
ED 448 Reading Study Skills in the Content Areas (3) **OR** STL 495 Literacy Methods II (3)

## Chemistry Pre-Professional Certificate

This certificate bundles together the most common chemistry lecture classes needed for pre-professional programs (pre-med, pre-dental, pre-chiropractic, etc.) in an online format.

Student Learning Outcomes

- Demonstrate basic knowledge and understanding of the fundamentals of experimental and theoretical chemistry AND/OR biochemistry.
- Demonstrate skills in analytical thinking, problem solving and application of scientific methods to experimental data.

**Core Requirements (9 credits)**
CHEM 150 General Chemistry I (3)
CHEM 210 General Chemistry II (3)
CHEM 350 Organic Chemistry I (3)

Restricted Electives (3 credits)
Students must complete at least 3 credits from the following list:

CHEM 150L General Chemistry I lab (1)
CHEM 210L General Chemistry II lab (1)
CHEM 360 Organic Chemistry II (3)
CHEM 400 Biochemistry I (3)
CHEM 410 Biochemistry II (3)

## Health & Human Performance

**Alex Nemzek Hall 103, (218) 477-2445**
**Co-Chairs:** Jay Albrecht and Wendy Short

**Faculty:** Jay Albrecht, Dawn Hammerschmidt, Megan Johnson, Julie Knutson, Sarah Milner, Wendy Short

MSUM's Health and Human Performance (HHP) Department offers programs for students who are interested in positions in teaching health and/or physical education in schools, exercise science, athletic training or coaching.

**Bachelor of Science in Physical Education: Teaching**
Physical education teaching graduates can be employed as licensed K-12 physical education teachers, "add-on" licensed PK-21 developmental adapted physical education teachers, and athletic coaches. A certificate in developmental adapted physical education (DAPE) develops capability to teach to all ability levels in general physical education. Additionally, a coaching minor enhances public school employment opportunities. Other physical education teaching graduates assume jobs in a variety of recreational and fitness fields. Competitive admittance is dependent upon completion of SARTE admittance.

**Bachelor of Science in Health Education**
School health educators are licensed to teach health education in the public or private schools at 5-12 level. Students obtaining a health education teaching degree are also eligible for positions in the community setting. Competitive admittance is dependent upon completion of SARTE admittance.

**Bachelor of Science in Exercise Science**
The exercise science major prepares students for careers in fitness, exercise science, wellness and health. The major will also prepare students for graduate school programs in exercise science, exercise physiology, athletic training and/or cardiac rehabilitation. One of the goals of the exercise science program is to prepare students to sit for certification by the American Council on Exercise, National Strength and Conditioning Association, American College of Sports Medicine, and National Academy of Sport Medicine.

## BS Degree in Exercise Science

The Exercise Science major prepares students for careers in fitness, exercise science, sport performance, wellness and allied health. Students can continue their education by pursuing graduate studies in exercise physiology, athletic training, cardiac rehabilitation, and rehabilitative science. Students learn to administer health appraisals and fitness assessments; understand exercise techniques; and design exercise programs for healthy adults, athletes and special populations. The exercise science program provides students with the educational experience to develop aerobic, anaerobic and resistance training programs to enhance cardio respiratory endurance, body composition, strength, power, balance, speed, agility and flexibility. One of the goals of the Exercise Science program is to prepare students to sit for certification exams by nationally recognized health, fitness, sports performance and sports medicine organizations such as the National Academy of Sports Medicine, National Strength and Conditioning Association, American College of Sports Medicine and American Council on Exercise. To receive the B.S. Degree in Exercise Science, the student must meet the minimum university requirements and specific requirements for the program. Completion of 120 credits is required for this degree which includes the Liberal Arts and Sciences Curriculum.

Student Learning Outcomes

- Students will apply knowledge of anatomy, biomechanics, exercise physiology, nutrition, risk factors, health appraisal, fitness assessments, orthopaedic exercise, nutrition, weight management, test administration, exercise programming, and metabolic calculations to personal fitness and sports performance training.
- Students will implement the optimum performance training model to design exercise programs that are safe, effective, maximize performance and optimize health.
- Students will apply basic competencies required of a fitness professional in a

sports medicine, cardiac rehabilitation, fitness center or sports training facility.

**Program Delivery Mode**
Land plus: face-to-face where some online courses may be available or required

**Designated Writing Intensive Course for Major**
EXS 310 Sport and Play in the US

**Core Requirements (42 credits)**
Students must earn at least two credits in EXS 469 Exercise Science Internship.

AT 220 Care and Prevention of Injuries & Illnesses (3)
HLTH 110 Personal Health and Wellness (3)
HLTH 125 First Aid and CPR (2) **OR**
AT 225 Athletic Training Emergency/Immediate Care (3)
HLTH 305 Introduction to Nutrition (3)
HLTH 330 Disease Prevention (2)
EXS 202 Strength and Conditioning Exercise Techniques (1)
EXS 302 Strength and Conditioning Program Design (2)
EXS 310 Sport and Play in the United States (3)
EXS 311 Motor Learning (2)
EXS 320 Anatomical Kinesiology (3)
EXS 321 Human Physiology (3)*
EXS 365 Exercise Program Design (3)
EXS 402 Strength and Conditioning Practicum (1)
EXS 420 Biomechanics (3)
EXS 421 Physiology of Exercise (3)
EXS 469 Exercise Science Internship (2-12)
EXS 473 Exercise Testing and Interpretation (3)

*BIOL 349 is a prerequisite for Pre-Professional Programs

**Health & Fitness Emphasis (18 credits)**

Program Requirements (9 credits)
EXS 364 Group Exercise Leadership (3)
AT 321 Orthopaedic Clinical Assessment (3)
AT 324 Therapeutic Exercise (3)

Restricted Electives (9 credits)
Elective course selections should be made in close consultation with students advisor, depending upon the career goals of the student.

ENTR 230 Entrepreneurial Finance (3)
ENTR 231 Entrepreneurial Leadership & Organization (3)
ENTR 232 Entrepreneurial Marketing (3)

PE 102 Weight Training I (1)
PE 137 Yoga (1)
PE 190/EXS 190 Topics (1)
PE 193 Elementary School Activities (1)
PE 452 Adaptive Physical Education (3)
PE 460 Principles of Coaching (3)
PE 474 Tests and Measurements in PE (3)

HLTH 190 Topics
HLTH 327 Safety Education and Consumer Protection (3)
HLTH 412 Education for Sexuality and HIV/AIDS (3)

CSIS 103 Computer Concepts and Applications (3)
ENGL 286 Writing for the Workplace (3)
ENGL 387 Technical Report Writing (3)
COMM 100 Speech Communication (3)

**Rehabilitative Science Emphasis (18 credits)**

Program Requirements (6 credits)
AT 321 Orthopaedic Clinical Assessment (3)
AT 324 Therapeutic Exercise (3)

Restricted Electives (12 credits)
Elective course selections should be made in close consultation with students advisor, depending upon the career goals of the student.

AT 210 Medical Terminology (1)
BIOL 111/BIOL 111L Cell Biology and lab (4)
BIOL 115/BIOL 115L Organismal Biology and lab (4)
BIOL 323/BIOL 323L Human Anatomy and lab (4)
BIOL 349/BIOL 349L Human Physiology and lab (4)
CHEM 150/CHEM 150L General Chemistry I and lab (4)
CHEM 210/CHEM 210L General Chemistry II and lab (4)
MATH 234 Intro to Probability and Statistics (3)
PHYS 160 Physics I with Algebra & Lab (4)
PHYS 161 Physics II with Algebra & Lab (4)

PSY 202 Developmental Psychology (3)
PSY 463 Abnormal Psychology (3)

HLTH 190 Topics
HLTH 327 Safety Education and Consumer Protection (3)
HLTH 412 Education for Sexuality and HIV/AIDS (3)

CSIS 103 Computer Concepts and Applications (3)
ENGL 286 Writing for the Workplace (3)
ENGL 387 Technical Report Writing (3)
COMM 100 Speech Communication (3)

## BS Degree in Health Education

To receive the B.S. Degree in Health Education, the student must meet the minimum university requirements and specific requirements for the program. Completion of 120 credits with a 2.5 GPA or higher is required to graduate with this degree which includes the Liberal Arts and Sciences Curriculum and Secondary Teaching Licensure Education requirements.

Student Learning Outcomes

- Health education teachers will assess individual and community needs for health education.
- Health education teachers plan effective health education programs.
- Health education teachers implement health education programs.
- Health education teachers evaluate the effectiveness of coordinated school health programs.
- Health education teachers coordinate provision of health education programs and services.
- Health education teachers act as a resource person in health education.
- Health education teachers communicate health and health education needs, concerns, and resources.

**Program Delivery Mode**
Land plus: face-to-face where some online courses may be available or required

**Designated Writing Intensive Course for Major**
HLTH 340 Health Methods and Materials (3)

**Core Requirements (57 credits)**
In addition to the health courses listed below, students must fulfill 33 credits of teacher licensure requirements. SARTE admittance is required to take some of the 300/400 level ED and HLTH courses.

HLTH 110 Personal Health and Wellness (3)
HLTH 125 First Aid and CPR (2)
HLTH 305 Introduction to Nutrition (3)
HLTH 327 Safety Education and Consumer Protection (3)
HLTH 330 Disease Prevention (2)
HLTH 335 Health Education and the Middle Level Adolescent (3)
HLTH 340 Health Methods and Materials (3)
HLTH 412 Education for Sexuality and HIV/AIDS (3)
HLTH 465 Coordinated School Health Programs (2)
**Total: 24 credits**

Secondary Education Licensure Requirements
Students must earn at least a C- or higher in all licensure coursework.

COMM 100 Speech Communication (3)
ED 205 Introduction to Education (3)
ED 294 Educational Psychology (3)
ED 310 Social Foundations of Education (3)
ED 498 The Professional Teacher in the Classroom (3)
ED 448 Reading Study Skills in the Content Areas (3)
ED 461S Student Teaching: Secondary (12) **or**
ED 460S Student Teaching: Secondary (6) **and**
EECE 480E Student Teaching: Elementary (6) **or**
ED 461V Student Teaching: Secondary/K-12 (12)
SPED 413 Teaching in Inclusive Environments (3)
**Total: 33 credits**

Teacher licensure requirements must be met in order to receive a secondary teaching license in the state of Minnesota. The MN Professional Educator Licensing and Standards Board information can be found HERE.

Information on MSUM Teacher Licensure can be found HERE

**Related Requirements (18 credits)**

Courses in the following areas: Athletic Training, Biology, Health Service Administration, Physical Education, Psychology, Philosophy and Sociology (Suggested courses are listed).

AT 220 Care and Prevention of Injuries & Illnesses (3)
BIOL 100 Issues in Human Biology (3)
BIOL 104 Human Biology (3)
BIOL 109 Biology Today (3)
HSAD 326 Epidemiology and Introductory Biostatistics (3)
EXS 321 Human Physiology (3)
PHIL 311 Morals and Medicine (3)
PSY 113 General Psychology (3)
SOC 110 Introduction to Sociology (3)
SOC 120 Social Psychology (3)
SOC 320 Sociology of the Family (3)

## BS Degree in Physical Education-Teaching

To receive the B.S. Degree in Physical Education, the student must meet the minimum university requirements and specific requirements for the program. Completion of 120 credits and a 2.5 GPA or above is required to graduate with this degree which includes the Liberal Arts and Sciences Curriculum and Secondary Teaching Licensure Education requirements.

Student Learning Outcomes

- Content Knowledge: Physical education teachers understand physical education content and disciplinary concepts related to the development of a physically literate person.
- Growth and Development: Physical education teachers understand how individuals learn and develop and can provide opportunities that support their physical, cognitive, social, and emotional development.
- Diverse Students: Physical education teachers understand how individuals differ in their approaches to learning and create appropriate instruction adapted to meet all students' needs.
- Management and Motivation: Physical education teachers use an understanding of individual and group motivation and behavior to create a safe learning environment that encourages positive social interaction, active engagement in learning and self-motivation.
- Communication: Physical education teachers use knowledge of effective verbal, nonverbal, and media communication techniques to enhance learning and engagement in physical activity settings.
- Planning and Instruction: Physical education teachers plan and implement a variety of developmentally appropriate instructional strategies to develop physically educated individuals, based on state and national standards.
- Student Assessment: Physical education teachers understand and use assessment to foster physical, cognitive, social, and emotional development of students in physical activity.
- Reflection: Physical education teachers are reflective practitioners who evaluate the effects of their actions on others and seek opportunities to grow professionally.
- Technology: Physical education teachers use information technology to enhance learning and to enhance personal and professional productivity.
- Collaboration: Physical education teachers foster relationships with colleagues, parents/guardians, and community agencies to support students' growth and well-being.

**Program Delivery Mode**
Land plus: face-to-face where some online courses may be available or required

**Designated Writing Intensive Course for Major**
EXS 310 Sport and Play in the US (3)

**Core Requirements (78 credits)**
In addition to the health and pe courses listed below, students must fulfill 33 credits of teacher

licensure requirements. SARTE admittance is required to take some of the 300/400 level PE courses.

HLTH 110 Personal Health and Wellness (3)
HLTH 125 First Aid and CPR (2)
PE 191 Activities Course: Dance (2)
PE 192 Activities Course: Gymnastics (1)
PE 193 Activities Course: Elementary School (2)
PE 194 Activities Course: Non-Traditional (1)
PE 200 Foundations of Physical Education (3)
EXS 310 Sport and Play in the United States (3)
EXS 311 Motor Learning (2)
EXS 320 Anatomical Kinesiology (3)
EXS 321 Human Physiology (3)
PE 360 Elementary Methods in Physical Education (3)
PE 361 Secondary Methods in Physical Education (3)
PE 362 Middle School Methods in Physical Education (2)
EXS 420 Biomechanics (3)
EXS 421 Physiology of Exercise (3)
PE 452 Adaptive Physical Education (3)
PE 474 Tests and Measurements in Physical Education (3)
**Total: 45 credits**

Secondary Education Licensure Requirements
Students must earn at least a C- or higher in all licensure coursework.

COMM 100 Speech Communication (3)
ED 205 Introduction to Education (3)
ED 294 Educational Psychology (3)
ED 310 Social Foundations of Education (3)
ED 498 The Professional Teacher in the Classroom (3)
ED 448 Reading Study Skills in the Content Areas (3)
ED 461S Student Teaching: Secondary (12) **or**
ED 460S Student Teaching: Secondary (6) **and**
EECE 480E Student Teaching: Elementary (6) **or**
ED 461V Student Teaching: Secondary/K-12 (12)
SPED 413 Teaching in Inclusive Environments (3)
**Total: 33 credits**

Teacher licensure requirements must be met in order to receive a secondary teaching license in the state of Minnesota. The MN Professional Educator Licensing and Standards Board information can be found HERE.

Information on MSUM Teacher Licensure can be found HERE

**Restricted Electives (3 credits)**
Students must earn one credit in courses that focus on physical fitness, one credit in courses that focus on team sports, and one credit in courses that focus on individual sports. Consult your academic advisor when making your selections from the listed courses.

PE 100 Group Exercise (1)
PE 102 Weight Training I (1)
PE 112 Bowling (1)
PE 114 Golf (1)
PE 116 Tennis I (1)
PE 124 Badminton (1)
PE 130 Volleyball I (1)
PE 132 Basketball (1)
PE 134 Soccer (1)
PE 137 Yoga I (1)
PE 160 Swimming I (1)
PE 190 Topics in Fundamental Activities (1-4)

## Minor in Coaching
12 credits

Required Core Courses:
AT 220 Care and Prevention of Injuries & Illnesses (3)
HLTH 125 First Aid and CPR (2)
PE 460 Principles of Coaching (2)
PE 461 Coaching Practicum (1)

Minor must include two 2 credit coaching courses:
PE 367 Coaching Soccer (2)
PE 371 Coaching Football (2)
PE 372 Coaching Basketball (2)
PE 373 Coaching Baseball and Softball (2)
PE 374 Coaching Track and Field (2)
PE 378 Coaching Swimming and Diving (2)
PE 379 Coaching Volleyball (2)

## Minor in Health Education
27 credits

Students who select this minor must also earn a teaching major in another discipline. Students should be advised the state of Minnesota does not recognize minors in health education for teacher licensure. Students who desire licensure in states other than Minnesota should check with teacher licensure authorities to determine licensure requirements.

HLTH 110 Personal Health and Wellness (3)
HLTH 125 First Aid and CPR (2)
HLTH 305 Introduction to Nutrition (3)
HLTH 327 Safety Education and Consumer Protection (3)
HLTH 330 Disease Prevention (2)
HLTH 335 Health Education and the Middle Level Adolescent (3)
HLTH 340 Health Methods and Materials (3)
HLTH 412 Education for Sexuality and HIV/AIDS (3)
HLTH 465 Coordinated School Health Programs (2)
EXS 321 Human Physiology (3)

## Minor in Physical Education-Teaching

28 credits

Students who select this minor must also earn a teaching major in another discipline. Students should be advised that the State of Minnesota does not recognize minors in Physical Education for teacher licensure. Students who desire licensure in states other than Minnesota should check with teacher licensure authorities to determine licensure requirements. In addition to the courses listed below, students are required to earn one additional elective in an activity course.

HLTH 125 First Aid and CPR (2)
PE 191 Activities Course: Dance (2)
PE 192 Activities Course: Gymnastics (1)
PE 193 Activities Course: Elementary School (2)
PE 200 Foundations of Physical Education (3)
EXS 320 Anatomical Kinesiology (3)
EXS 321 Human Physiology (3)
PE 360 Elementary Methods in Physical Education (3)
PE 361 Secondary Methods in Physical Education (3)
PE 362 Middle School Methods in Physical Education (2)
PE 452 Adaptive Physical Education (3)

## Minor in Sports Medicine

22 credits

The Sports Medicine Minor combines courses in exercise science, athletic injury prevention and rehabilitation to prepare students who have an interest in working with athletes and non-athletes pursuing a career in fitness, rehabilitation, and athletic training.

AT 210 Medical Terminology (1)
AT 220 Care and Prevention of Injuries & Illnesses (3)
AT 321 Orthopedic Clinical Assessment: Upper Extremity (3)
AT 324 Therapeutic Exercise (3)
EXS 320 Anatomical Kinesiology (3)
EXS 420 Biomechanics (3)
EXS 421 Physiology of Exercise (3)
EXS 473 Exercise Testing and Interpretation (3)

## Minor in Strength and Conditioning

21 credits

The Strength & Conditioning minor focuses on courses in health, exercise science, and strength and conditioning to prepare students who have an interest in working with individuals in the area of strength training and conditioning. The courses may assist students in preparation to take certification exams.

HLTH 125 First Aid and CPR (2)
HLTH 305 Introduction to Nutrition (3)
EXS 202 Strength and Conditioning Exercise Techniques (1)
EXS 302 Strength and Conditioning Program Design (2)
EXS 320 Anatomical Kinesiology (3)
EXS 365 Health and Fitness Instructor (3)
EXS 402 Strength and Conditioning Practicum (1)
EXS 420 Biomechanics (3)
EXS 421 Physiology of Exercise (3)

## Minor in Wellness

21 credits

The Wellness Minor is designed to introduce students to wellness concepts and develop the strategies to achieve optimal health.

**Core Requirements (14 credits)**
HLTH 110 Personal Health & Wellness (3)
HLTH 305 Introduction to Nutrition (3)
HLTH 327 Safety Education and Consumer Protection (3)
HLTH 330 Disease Prevention (2)
HLTH 412 Education for Sexuality and HIV/AIDS (3)

**Restricted Electives (7 credits)**
Seven credits total. Maximum of two credits in Wellness Activity courses (PE).
PE 100 Aerobic Dance (1)
PE 104 Exercise and Body Development (1)
PE 137 Yoga I (1)
PE 190 Topics (1)
AT 210 Medical Terminology (1)
BIOL 300 Biology of Women (3)
HLTH 125 First Aid and CPR (2)
HLTH 190 Topics (1)
HSAD 326 Epidemiology and Introductory Biostatistics (3)
PSY 220 Social Behavior (3)
PSY 265 Health Psychology (3)
PSY 403 Adulthood and Aging (3)
PSY 317 Alcoholism and Drug Abuse (3)
SOC 308 Social Gerontology (3)
SOC 375 Sociology of Health and Medicine (3)

## Certificate in DAPE

The Developmental Adapted Physical Education (DAPE) Certificate provides a specialized training to teach physical education to students with diverse needs and develops capability to teach to all ability levels in general physical education classes. The DAPE Certificate program at MSUM covers the content areas required to earn a PK-21 DAPE licensure in the State of Minnesota. Students from related disciplines who plan to work within the special needs population are encouraged to obtain the DAPE Certification, but according to MN teaching licensure requirements, only physical education majors can be permitted to earn a MN DAPE license, as the DAPE licensure is an "add-on" license to the K-12 PE Teaching license.

Student Learning Outcomes

Subp.3. Subject matter standard. A candidate for licensure as a teacher of special education: developmental adapted physical education must complete a preparation program under subpart 2, item D, that must include the candidate's demonstration of the knowledge and skills in items A to E.

A. Foundational knowledge. A teacher of special education: developmental adapted physical education understands the foundations of special education services for students with disabilities relating to physical and motor fitness on which to base practice.
B. Referral, evaluation, planning, and programming. A teacher of special education: developmental adapted physical education understands and applies principles of prevention and intervening early and procedures for referral, assessment, evaluation, individualized planning, programming, and placement specific to teaching students with disabilities relating to physical and motor fitness.
C. Instructional design, teaching, and ongoing evaluation. A teacher of special education: developmental adapted physical education understands how to use individualized education program plans to design, implement, monitor, and adjust instruction for students with disabilities relating to physical and motor fitness.
D. Collaboration and communication. A teacher of special education: developmental adapted physical education cultivates and maintains positive, collaborative relationships with children and youth, families, educators, other professionals, and the community to support development and educational progress.
E. Clinical experiences. A teacher of special education: developmental adapted physical education applies the standards of effective practice in teaching students who have needs in the area of physical fitness and gross motor skills in prekindergarten and primary (preK and K-grade 4),

middle level (grades 5-8), and secondary (grades 9-12, including transition programs) settings across a range of service delivery models.

ED 448 Reading Skills in Content Areas (3)
SPED 225 Individuals with Exceptionalities (3)
SPED 471 Behavior and Environment Management (3)
PE 452 Adapted Physical Education (3)
PE 453 Assessment and Programming in DAPE (3)
PE 454 Curriculum in DAPE (3)
PE 456L Lab Curriculum & Assessment for Severely Handicapped (1)
PE 469 Internship in DAPE (4)

## Physics & Astronomy

**Hagen Hall 307, (218) 477-2141**
**Chair:** Steve Lindaas
**Faculty:** Leland Aldridge, Juan Cabanela, Matthew Craig, Steve Lindaas, Ananda Shastri, Linda Winkler
**Planetarium Director:** Sara Schultz

The Department of Physics and Astronomy offers three degrees: a Bachelor's degree in Physics, Bachelor's degree in Physics Education, and a Bachelor's degree in Physics Engineering. The Bachelor's degree in Physics may be further enhanced with an emphasis in astrophysics, emphasis in business, or an emphasis in medical physics. In addition, the department supports a minor in physics, a minor in medical physics and a minor in astronomy. Students interested in engineering may also pursue a dual degree in physics and engineering. The Department of Physics and Astronomy also coordinates the Bachelor's degree in Sustainability. The Sustainability degree allows for multiple tracks such as environmental science, business, construction management, operations management, energy science, geographic information systems and environmental policy.

**Bachelor's Degree in Physics**
The physics major prepares students for a wide variety of careers from science and engineering to finance and healthcare. Our students develop a skill set that is extremely valuable in a wide variety of jobs. The physics major also prepares students for further study in a graduate or professional school.

The major strengths of the physics program include:

- student-centered focus on teaching & learning;
- an emphasis on active learning using computers as tools for data collection, analysis, computation & modeling;
- opportunities for undergraduate research;
- involvement of students in outreach program and an award winning physics club.

The sequential nature of the physics curriculum, and the necessity to coordinate physics courses with courses taken in other departments make it imperative that a student considering a major or minor in physics or astronomy consult a member of the Department of Physics and Astronomy early in their career.

**Bachelor's Degree in Physics-Emphasis in Astrophysics**
This program requires completion of a minimum of 120 credits and prepares the student to work with large data sets as well as possible graduate work in astrophysics. Majors with an astrophysics emphasis take core physics courses and several advanced astrophysics courses in both observational technique and theory which include extensive use of computing. Additional career options using these skills include GIS, remote sensing, and medical image processing.

**Bachelor's Degree in Physics-Emphasis in Business**
This program requires completion of a minimum of 120 credits and prepares the physics student for a career in industry and who are interested in using their technical backgrounds in an entrepreneurial setting. In addition to the core physics courses, students in this emphasis take several business courses required for the certificate in entrepreneurship from the Paseka School of Business.

**Bachelor's Degree in Physics-Emphasis in Medical Physics**
This program requires completion of a minimum of 120 credits and is a program for students interested in medical physics, a branch of applied physics that utilizes physics concepts and methods in the diagnosis and treatment of human disease to improve human health. The emphasis is preparation for graduate work and careers in radiation oncology, applied medical physics, and medical imaging quality control. A medical physics emphasis also serves students interested in biophysics, bioengineering and the technological aspects of biotechnology. In addition to the core physics courses, students in this emphasis take several chemistry and biology courses as well as specialized electives.

**Bachelor's Degree in Physics Education**
This degree prepares the student to be certified to teach high-school physics in Minnesota. The program combines physics courses for the major with education courses needed for licensure. A student with this degree is strongly encouraged to also take additional courses in biology and geosciences to obtain the general science licensure in grades 5-8.

**Bachelor's Degree in Engineering Physics**
This degree is designed for students who are curious about and want an applied understanding of how the natural world works. The major develops mathematical, modeling, computational, and lab skills applicable to a wide variety of engineering related careers. The major is also good preparation for graduate school in engineering and related fields.

**Engineering/Physics Dual Degree**
Students have the option of obtaining a dual degree in physics (from MSUM) and engineering by completing the engineering curriculum at a university of their choice. The student completes the core physics and liberal arts and sciences curriculum requirements in their first three years at MSUM. The student then completes a final two years at a university completing coursework in their chosen engineering field. It is expected students in the dual degree program will obtain both a physics and engineering degree in five years. The dual degree advisor will work with individual students to ensure requirements are met for both programs.

Information on the engineering dual degree can be found HERE.

**Bachelor's Degree in Sustainability**
The Bachelor of Science in Sustainability is an excellent degree to prepare for emerging jobs in the green economy while striving to make the world a better place for future generations. MSUM's sustainability program is one of only a few universities in the country to focus on the entire spectrum of socio-environmental sustainability. The focus on sustainability within our societies crosses multiple disciplines with the shared goal of preserving and promoting a healthy planet; adding a second major or minor is encouraged and can often be achieved within 120 total credits. There are suggested tracks available through advising to pursue sustainability applications within environmental science, operations management, business, public policy, construction management, energy science and geographic information systems.

The Sustainability program is designed to give students an understanding of the need for long-term sustainable practices in our lifestyles and economy. As more and more companies adopt practices to decrease operating costs while also reducing their impact on the environment, they hire sustainability coordinators to manage these tasks. The future outlook for these positions looks bright as companies seek to maintain strong commitments to the environment and employ strategies to increase their economic competitiveness. Green jobs involve all aspects of employment in renewable energy or sustainability efforts. According to the US Bureau of Labor Statistics, green jobs are either:

- jobs in businesses that produce goods or provide services that benefit the environment or conserve natural resources.

- jobs in which workers' duties involve making their establishment's production processes more environmentally friendly or use fewer natural resources.

The number of industries that offer green employment opportunities are diverse and job titles do not always contain "sustainability". Green jobs offer wages that run approximately 13% higher than the average job in the US, with green energy jobs running 20% higher (US Bureau of Labor Statistics 2017).

**Minor in Astronomy**
The minor in astronomy is designed for students who have an interest in observational astronomy and earth sciences. A student pursuing a minor in astronomy must have a solid mathematical foundation in algebra and trigonometry.

**Minor in Physics**
This minor is designed for the student who wants to have a strong resume in physical science. Students pursuing a closely allied major such as mathematics, chemistry, or computer science often add this minor. A student pursuing a physics minor must have a solid mathematical foundation in algebra, trigonometry, and calculus.

**Minor in Medical Physics**
The minor in medical physics is a program designed for students in biosciences and chemistry related fields, who are looking for additional expertise in a branch of applied physics that utilizes physics concepts and methods in the diagnosis, treatment and improvement of human health. A student pursuing a minor in medical physics must have a solid mathematical foundation in algebra, trigonometry and calculus.

**Minor in Sustainability**
The sustainability minor is an excellent addition to any major. It has an interdisciplinary focus with the shared goal of understanding, preserving and promoting a healthy planet. MSUM is one of only a few universities in the country to approach sustainability across the curriculum.

## BS Degree in Engineering Physics

The Engineering Physics major is designed for students who are curious about and want an applied understanding of how the natural world works. This major develops mathematical, modeling, computational, and lab skills that are applicable to a wide variety of engineering-related careers. The major is also good preparation for graduate school in engineering and related fields. Students have the option of obtaining a dual degree in physics (from MSUM) and engineering by completing the engineering curriculum at a university of their choice. To receive the B.S. Degree in Engineering Physics, the student must meet the minimum university requirements and specific requirements for the program/emphasis. Completion of 120 credits is required for this degree which includes the Liberal Arts and Sciences Curriculum.

Student Learning Outcomes

- Demonstrate basic knowledge of experimental physics and engineering concepts.
- Apply analytical thinking, mathematical analysis, and computational techniques to the solution of problems in engineering.
- Reach both quantitative and qualitative conclusions from experimental data.
- Apply analytical thinking, instrumentation skills, and computer techniques to perform experiments.
- Participate in an internship that develops engineering design skills OR Conduct an independent research project that uses engineering design principles.

**Program Delivery Mode**
Land plus: face-to-face where some online courses may be available or required

**Designated Writing Intensive Course for Major**
PHYS 305 Experimental Physics I (3)

**<u>Core Requirements (31 credits)</u>**
PHYS 200 Physics I with Calculus & Lab (4)
PHYS 201 Physics II with Calculus & Lab (4)
PHYS 202 Introduction to 20th Century Physics (3)

PHYS 305 Experimental Physics I (3)
PHYS 315 Physics Seminar (1)
PHYS 322 Elementary Modern Physics (3)
PHYS 350 Computational Methods for Physical Science (3)
PHYS 330 Intermediate Mechanics (4)
PHYS 306 Experimental Physics II (3)

**Program Requirements**

Students who major in Engineering Physics and choose to pursue the optional dual degree by completing an engineering degree at another university will be exempted from the MSUM graduation requirement that eight of the last twelve credits be completed at MSUM for the Engineering Physics degree.

Related Requirements (32 credits)
MATH 261 Calculus I (4)
MATH 262 Calculus II (4)
MATH 323 Multi-Variable and Vector Calculus (4)
MATH 327 Linear Algebra (3)
MATH 366 Differential Equations (3)
CSIS 152 Introduction to Computers and Programming I-a (3)
CSIS 153 Introduction to Computers and Programming I-b (3)
CHEM 150 General Chemistry I (3) **and** CHEM 150L General Chemistry I Lab (1)
CHEM 210 General Chemistry II (3) **and** CHEM 210L General Chemistry II Lab (1)

**Restricted Electives (9 credits)**

Students must complete one of the two options below:

ENG 469 Internship (3) **OR**
PHYS 342 Introduction to Research (1) **AND**
PHYS 492 Senior Project (2)

Students must complete six credits from the list below:

PHYS 312 Analog Electronics (3)
PHYS 318 Biophysics and Medical Imaging (3)
PHYS 325 Optics (3)

In addition, students must complete at least three credits from the list below:

PHYS 370 Electromagnetic Theory (4)
PHYS 380 Thermodynamics (3)
PHYS 430 Quantum Mechanics (3)
CHEM 450 Physical Chemistry: Thermodynamics (3)

Students may substitute an appropriate engineering course at the 300 level or higher for any courses above.

**Recommended Electives**

We recommend students consider completing the courses listed below. Students are not required to complete these courses. Students are encouraged to take Math 260 with Math 261.

MATH 210 Discrete Math (3)
MATH 260 Computer Calculus (1)
CSIS 252 Introduction to Computer Programming II (3)
ENGL 387 Technical Report Writing (3)

Students are particularly encouraged to consider an internship, which can be completed during the summer:

ENG 469 Internship (1-3)

## BS Degree in Physics

The Physics major is designed for students who are curious about and want to understand how the natural world works. Our major develops math, modeling, computational, and problem-solving skills that are applicable to a wide variety of careers. We purposefully integrate computational techniques along with quantitative techniques into all our major courses. Recent majors have gone on to careers in education, engineering, computer programming, medical physics, astrophysics research, and finance. The Physics major with Medical Physics emphasis is designed for students who are interested in the application of physics concepts and methods in the diagnosis and treatment of human disease to improve human health. This is preparation for graduate work and careers in radiation oncology, applied medical physics, and medical imaging quality control. In addition to the core physics courses, students in this emphasis take several chemistry and biology courses as well as specialized electives. The Physics

major with Astrophysics emphasis prepares students to work with large data sets. Possible careers using these skills include GIS, remote sensing, and medical image processing, in addition to possible graduate work in astrophysics. Majors with an astrophysics emphasis take several advanced astrophysics courses in both observational techniques and theory which include extensive use of computing. The Physics major with Business emphasis is designed for students who are interested in using their technical backgrounds in an entrepreneurial setting. Possible careers include product development, technical sales, and business ownership. In addition to the core physics courses, students in this emphasis take several business courses required for the Certificate in Entrepreneurship from the Paseka School of Business. To receive the B.S. Degree in Physics, the student must meet the minimum university requirements and specific requirements for the program/emphasis. Completion of 120 credits is required for this degree which includes the Liberal Arts and Sciences Curriculum.

Student Learning Outcomes

Graduates of our program can demonstrate the ability to:

- Model physical systems conceptually.
- Model physical systems analytically.
- Model physical systems computationally.
- Experimentally test physical models using contemporary techniques and equipment.
- Apply the scientific method to studying a physical system.
- Communicate professionally both in written and oral forms appropriate to the discipline.

**Program Delivery Mode**
Land plus: face-to-face where some online courses may be available or required

**Designated Writing Intensive Course for Major**
PHYS 305 Experimental Physics I (3) or ENGL 387 Technical Report Writing (3)

**Core Requirements (31 credits)**
PHYS 200 Physics I with Calculus & Lab (4)
PHYS 201 Physics II with Calculus & Lab (4)
PHYS 202 Introduction to 20th Century Physics (3)
PHYS 305 Experimental Physics I (3)
PHYS 315 Physics Seminar (1)
PHYS 322 Elementary Modern Physics (3)
PHYS 350 Computational Methods for Physical Science (3)
PHYS 330 Intermediate Mechanics (4)
PHYS 306 Experimental Physics II (3)
PHYS 342 Introduction to Research (1)
PHYS 492 Senior Project (2)

The algebra-based physics courses PHYS 160 and PHYS 161 may be substituted for the calculus-based physics courses PHYS 200 and PHYS 201.

**Related Requirements (18 credits)**
ENGL 387 Technical Report Writing (3)
MATH 261 Calculus I (4)
MATH 262 Calculus II (4)
MATH 323 Multi-Variable and Vector Calculus (4)
MATH 366 Differential Equations (3)

**Electives (18 credits)**
Students must complete 18 elective credits in Physics (PHYS) or Astronomy (AST) at the 300 level or higher (not including Phys 302, 385 and 440 and Ast 324 and 360). These courses cannot be from the core or related requirements. A max of 2 credits allowed towards Phys 469 (internship) and Phys 394 (research seminar).

**Recommended Electives**
We recommend students consider completing the courses listed below. Students are not required to complete these courses. Students are encouraged to take Math 260 with Math 261.

MATH 260 Computer Calculus (1)
MATH 327 Linear Algebra (3)

**Business Emphasis (18 credits)**

Program Requirements (15 credits)
Students must complete the core requirements listed for the major in addition to completing the following courses required for the Certificate

of Entrepreneurship from the Paseka School of Business.

ENTR 229 Start Your Own Business (3)
ENTR 230 Entrepreneurial Finance (3)
ENTR 231 Entrepreneurial Leadership and Organization (3)
ENTR 232 Entrepreneurial Marketing (3)
ENTR 309 Building a Workable Business Plan (3)

Restricted Electives (3 credits)
Students must complete at least 3 credits from the courses listed below.

PHYS 312 Analog Electronics (3)
PHYS 318 Biophysics and Medical Imaging (3)
PHYS 325 Optics (3)
PHYS 370 Electromagnetic Theory (4)
PHYS 380 Thermodynamics (3)
PHYS 430 Quantum Mechanics (3)

Recommended Electives
We recommend students consider completing the courses listed below. Students are not required to complete these courses.

MKTG 270 Principles of Marketing (3)
MGMT 260 Principles of Management (3)
MGMT 380 Operations Management (3)

Students are encouraged to take Math 260 with Math 261.

MATH 260 Computer Calculus (1)
MATH 327 Linear Algebra (3)

**Astrophysics Emphasis (22 credits)**

Program Requirements (13 credits)
Students must complete the core requirements listed for the major in addition to the following list of courses.

PHYS 370 Electromagnetic Theory (4)
PHYS 380 Thermodynamics (3)
PHYS 430 Quantum Mechanics (3)
AST 266 Observational Astronomy (3)

Restricted Electives (9 credits)
Take three credits from:

AST 410 Astrophysics (3)
AST 365 Cosmology (3)

Take six credits from:

AST 360 Planetary Science (3)
AST 390 Projects in Advanced Astronomy (3)
PHYS 312 Analog Electronics (3)
PHYS 325 Optics (3)
PHYS 469 Internship (1-2)
AST 324 Life and Death in the Universe (3)
AST 100 Introduction to a Universe of Astronomy (3)

Recommended Electives
We recommend students consider completing the courses listed below. Students are not required to complete these courses.

MKTG 270 Principles of Marketing (3)
MGMT 260 Principles of Management (3)
MGMT 380 Operations Management (3)

Students are encouraged to take Math 260 with Math 261.

MATH 260 Computer Calculus (1)
MATH 327 Linear Algebra (3)

**Medical Physics Emphasis (21 credits)**

Program Requirements (21 credits)
Students must complete the core requirements listed for the major in addition to completing the following list of courses.

PHYS 312 Analog Electronics (3)
PHYS 318 Biophysics and Medical Imaging (3)
PHYS 370 Electromagnetic Theory (4)
PHYS 380 Thermodynamics (3)
CHEM 150 General Chemistry I (3)
CHEM 150L General Chemistry Laboratory I (1)
CHEM 210 General Chemistry II (3)
CHEM 210L General Chemistry II Lab (1)

Recommended Electives
We recommend students consider completing the courses listed below. Students are not required to complete these courses.

BIOL 111 Cell Biology (4)
BIOL 115 Organismal Biology (4)
BIOL 323 Human Anatomy (4)
BIOL 349 Human Physiology (4)

CHEM 350 Organic Chemistry I (3)
CHEM 360 Organic Chemistry II (3)

PHYS 325 Optics (3)
PHYS 430 Quantum Mechanics (3)

Students are encouraged to take Math 260 with Math 261.

MATH 260 Computer Calculus (1)
MATH 327 Linear Algebra (3)

## BS Degree in Physics Education

The Physics Education major is designed for students who are interested in teaching high school physics. This major develops the mathematical, modeling, computational and lab skills necessary to be a successful educator. Students take practical courses covering concepts and activities relevant to the physical science topics that they will be teaching. Students have the opportunity to develop and practice pedagogical skills by working as a Learning Assistant for their physics courses. Students are also encouraged to participate in the nationally award winning Society of Physics Students which is involved in a range of outreach events. In addition to formal and informal education, students may participate in various research projects. A student pursuing this degree is strongly encouraged to also take additional life science and earth science courses to obtain the general science licensure in grades 5 through 8. To receive the B.S. Degree in Physics Education, the student must meet the minimum university requirements and specific requirements for the program. Completion of 120 credits and a 2.5 GPA or above is required to graduate with this degree which includes the Liberal Arts and Sciences Curriculum and Secondary Teaching Licensure Education requirements. Teacher licensure requirements must be met in order to receive a secondary teaching license in the state of Minnesota.

Student Learning Outcomes

Graduates of our program can demonstrate the ability to:

- Model physical systems conceptually.
- Model physical systems analytically.
- Model physical systems computationally.
- Experimentally test physical models using contemporary techniques and equipment.
- Apply the scientific method to studying a physical system.
- Communicate professionally both in written and oral forms appropriate to the discipline.

**Program Delivery Mode**
Land plus: face-to-face where some online courses may be available or required

**Designated Writing Intensive Course for Major**
PHYS 305 Experimental Physics I (3)

**Core Requirements (66 credits)**
PHYS 200 Physics I with Calculus & Lab (4)
PHYS 201 Physics II with Calculus & Lab (4)
PHYS 202 Introduction to 20th Century Physics (3)
PHYS 305 Experimental Physics I (3)
PHYS 322 Elementary Modern Physics (3)
PHYS 350 Computational Methods (3)
PHYS 330 Intermediate Mechanics (4)
PHYS 312 Analog Electronics (3)
PHYS 325 Optics (3)
PHYS 440 Secondary Science Teaching Methods (3)

Students may substitute PHYS 160 and PHYS 161 for PHYS 200 and PHYS 201
Total: 33 credits

Secondary Education Licensure Requirements
Students must earn at least a C- or higher in all licensure coursework.

COMM 100 Speech Communication (3)
ED 205 Introduction to Education (3)
ED 294 Educational Psychology (3)
ED 310 Social Foundations of Education (3)
ED 498 The Professional Teacher in the Classroom (3)

ED 448 Reading Study Skills in the Content Areas (3)
ED 461S Student Teaching: Secondary (12) **or**
ED 460S Student Teaching: Secondary (6) **and**
EECE 480E Student Teaching: Elementary (6) **or**
ED 461V Student Teaching: Secondary/K-12 (12)
SPED 413 Teaching in Inclusive Environments (3)
**Total: 33 credits**

Teacher licensure requirements must be met in order to receive a secondary teaching license in the state of Minnesota. The MN Professional Educator Licensing and Standards Board information can be found HERE.

Information on MSUM Teacher Licensure can be found HERE

**Related Requirements (23 credits)**
MATH 261 Calculus I (4)
MATH 262 Calculus II (4)
MATH 323 Multi-Variable and Vector Calculus (4)
MATH 366 Differential Equations (3)

CHEM 150 General Chemistry I (3)
CHEM 150L General Chemistry Laboratory I (1)
CHEM 210 General Chemistry II (3)
CHEM 210L General Chemistry II Lab (1)

**Recommended Electives**
The following courses, plus one year of chemistry and one year of physics, are required for the middle-level science endorsement (grades 5-8). You will also need to have a middle-level practicum experience or middle-level student teaching experience in addition to your secondary student teaching experience.

BIOL 111 Cell Biology (4)
BIOL 115 Organismal Biology (4)

GEOS 115 Physical Geology (4)
GEOS 116 Historical Geology (3)
GEOS 360 Planetary Science (3)

## BS Degree in Sustainability

The Bachelor of Science in Sustainability is an excellent degree to prepare for emerging jobs in the green economy while striving to make the world a better place for future generations. MSUM's sustainability program is one of only a few universities in the country to focus on the entire spectrum of socio-environmental sustainability. The focus on sustainability within our societies crosses multiple disciplines with the shared goal of preserving and promoting a healthy planet; adding a second major or minor is encouraged and can often be achieved within 120 total credits. There are suggested tracks available through advising to pursue sustainability applications within environmental science, operations management, business, public policy, construction management, energy science and geographic information systems. The Sustainability program is designed to give students an understanding of the need for long- term sustainable practices in our lifestyles and economy. As more and more companies adopt practices to decrease operating costs while also reducing their impact on the environment, they hire sustainability coordinators to manage these tasks. The future outlook for these positions looks bright as companies seek to maintain strong commitments to the environment and employ strategies to increase their economic competitiveness. Green jobs involve all aspects of employment in renewable energy or sustainability efforts. According to the US Bureau of Labor Statistics, green jobs are either: Jobs in businesses that produce goods or provide services that benefit the environment or conserve natural resources; jobs in which workers' duties involve making their establishment's production processes more environmentally friendly or use fewer natural resources. The number of industries that offer green employment opportunities are diverse and job titles do not always contain "sustainability". Green jobs offer wages that run approximately 13% higher than the average job in the US, with green energy jobs running 20% higher (US Bureau of Labor Statistics 2017). To receive the B.S. Degree in Sustainability, the student must meet the minimum university requirements and specific requirements for the program. Completion of 120 credits is required for this degree which includes the Liberal Arts and Sciences Curriculum.

Student Learning Outcomes

- Explore the concept of sustainability within the context of socio-environmental systems.
- Evaluate how humans impact the surface of the earth and the biosphere, and the consequential effects on ecosystem services.
- Examine the relationships between civilization, society and energy use and look at possible steps to a sustainable energy and environmental future.
- Identify issues faced by developing countries in the conflict between rapid economic development and the threat of environmental degradation.
- Describe how class, gender, race, ethnicity, nation status and other identities intersect with relationships within environmental justice and activism.
- Examine the motivations behind humans' decisions to modify ecosystems throughout the world, and the effects that environmental change has had on the peoples and ecosystems throughout human history.
- Interpret any environmental issue within a systems thinking framework.
- Articulate the ethical responsibilities humans have for the non-human world and for future human generations.
- Recognize and apply sustainable ideas and practices to potential career opportunities.

**Program Delivery Mode**
Land plus: face-to-face where some online courses may be available or required

**Designated Writing Intensive Course for Major**
SUST 432 Environmental Dilemmas (3)

**Core Requirements (19 credits)**
SUST 200 Nature of Sustainability (3)
ENGL 407 Big City, Big Impact (3)
PSCI 378 Energy and Environment (3)
SUST 421 Systems Thinking (3)
SUST 432 Environmental Dilemmas (3)
SUST 469 Internship (3)
SUST 492 Seminar: Sustainability Capstone (1)

**Related Requirements (3 credits)**
Must take a 3 credit college algebra course or above.

**Restricted Electives (10 credits)**
Take one course from the list of courses below:

GEOS 109/GEOS 109L Processes and History of a Dynamic Planet (4)
GEOS 110/GEOS 110L Water, Land, and People: An Introduction to Physical Geography (4)
BIOL 115/115L Organismal Biology with Lab (4)

Take two courses from the list of global and human diversity electives:

GEOS 111 Cultures and Regions (3)
HIST 374 Plagues and People (3)
HIST 379 Environmental History (3)
NURS 485 Global Health Perspectives (3)
WS 330 Gender, Justice and the Environment (3)

**Electives (18 credits)**
Take 18 credits of at least 6 additional elective courses, 3 of which are upper level courses (300-level or above). These credits are in addition to any courses taken as part of the core and restricted electives.

Upper Level Electives (listed below):

ANTH 307 Ecological Anthropology (LASC 10) (3)
ANTH 308 Migration and Human Adaptation (3)
ANTH 311 American Indians and the Environment (LASC 10) (3)
ANTH 317 Collapse (LASC 10) (3)
ANTH 325 Reading Landscape: Ways of Seeing (3)
ART 345 Art of Social and Environmental Justice (3)
BIOL 305 General Botany (4)
BIOL 308 Pacific Northwest Ecology (LASC 10) (3)
BIOL 326 Minnesota Plant Identification (4)
BIOL 335 Tropical Conservation Biology (LASC 10) (3)
BIOL 345 Principles of Ecology (4)
BIOL 346 An Ecological Perspective (LASC 10) (3)
BIOL 370 Exploring Biology (LASC 10) (3)
BIOL 372 Aquatic Biology (4)

CHEM 304 The Environment and You (LASC 10) (3)
CM 327 Sustainability and the Built Environment (LASC 10) (3)
ECON 305/WS 305 The Economics of Poverty, Discrimination and Inequality (3)
ENGL 435 Nature Writing/Ecocriticism (LASC 10) (3)
GEOS 305 Oceanography (LASC 10) (3)
GEOS 307 Introduction to GIS (3)
GEOS 320 Economic Geography (3)
GEOS 321 Sustainable Transportation (3)
GEOS 325 Reading Landscapes: Ways of Seeing (3)
GEOS 330 Elementary Meteorology (LASC 10) (3)
GEOS 335 Environmental Geography and Conservation (LASC 10) (3)
GEOS 340 Economic and Environmental Geology (3)
GEOS 370 Structural Geology and Mapping (3)
GEOS 407 Spatial Analysis (4)
GEOS 415 Reading Geochemical Fingerprints (3)
HIST 373 Monsoon Asia: People and the Environment (LASC 10) (3)
HIST 374 Plagues and Peoples: Disease and the Environment (LASC 10) (3)
HIST 379 Environmental History (LASC 10) (3)
POL 341 Public Policy (3)
POL 345 Environmental Politics (LASC 10) (3)
POL 352 Political Problems in Developing Countries (3)
PSY 324 Environmental Psychology (LASC 10) (3)
SOC 319 Society and the Environment (LASC 10) (3)
SOC 325 Social Movements (3)
NURS 485 Global Health Perspectives (3)
WS 310 Dominant - Subordinate Group Relations (3)
WS 312 Rhetorics of Resistance: Feminist Responses from the Humanities (3)
WS 330 Gender, Justice and the Environment (LASC 10) (3)

Lower Level Electives (listed below):

BIOL 115/115L Organismal Biology with Lab (4)
BIOL 248 Introduction to Public Health (3)
CHEM 102 Environmental Chemistry (3)
GEOS 109/GEOS 109L Processes and History of a Dynamic Planet & Intro Geology Lab (4)
GEOS 110/GEOS 110L Water, Land, and People: Introduction to Physical Geography with Lab (4)
GEOS 111 Cultures and Regions (3)
GEOS 205 Thinking Spatially (3)
GEOS 207 GPS Field Techniques (3)
GEOS 209L Problems in Introductory Geology (2)
GEOS 210 Cartography (3)
HIST 276 The World of Food (3)
POL 120 American National Government and Politics (3)
POL 160 International Relations (3)
POL 265 International Protection of Human Rights (3)

## Minor in Astronomy

15-16 credits

The Minor in Astronomy is designed for students who have an interest in observational astronomy and earth sciences. A student pursuing a Minor in Astronomy must have a solid mathematical foundation in algebra and trigonometry.

**Core Requirements (6 credits)**

AST 100 Introduction to a Universe of Astronomy (3)
AST 324 Life and Death in the Universe (3)

**Restricted Electives (9-10 credits)**

Students must take three courses from the following list:

GEOS 115 Physical Geology (4)
AST 266 Observational Astronomy (3)
AST 360 Planetary Science (3)
AST 390 Projects in Advanced Astronomy (3)
AST 365 Cosmology (3)
AST 410 Astrophysics (3)

## Minor in Medical Physics

27 credits

The Minor in Medical Physics is a program designed for students in biosciences, chemistry and related fields, who are looking for additional expertise in a branch of applied physics that utilizes physics concepts and methods in the diagnosis, treatment and improvement of human health. A student pursuing a Minor in Medical Physics must have a solid mathematical foundation in algebra, trigonometry, and calculus and will complete an

additional 27 credits.

PHYS 200 Physics I with Calculus & Lab (4)
PHYS 201 Physics II with Calculus & Lab (4)
PHYS 202 Introduction to 20th Century Physics (3)
PHYS 305 Experimental Physics I (3)
PHYS 315 Physics Seminar (1)
PHYS 322 Elementary Modern Physics (3)
PHYS 312 Analog Electronics (3)
PHYS 318 Biophysics and Medical Imaging (3)
PHYS 306 Experimental Physics II (3)

## Minor in Physics

24 credits

This minor is designed for the student who wants to have a strong resume in physical science. Students pursuing a closely allied major such as mathematics, chemistry, or computer science often add this minor. A student pursuing a Minor in Physics must have a solid mathematical foundation in algebra, trigonometry, and calculus and will complete 24 additional credits.

PHYS 200 Physics I with Calculus & Lab (4)
PHYS 201 Physics II with Calculus & Lab (4)
PHYS 202 Introduction to 20th Century Physics (3)
PHYS 305 Experimental Physics I (3)
PHYS 315 Physics Seminar (1)
PHYS 322 Elementary Modern Physics (3)
PHYS 306 Experimental Physics II (3)

Students may substitute PHYS 160/PHYS 161 for PHYS 200/PHYS 201.
A maximum of 2 credits of PHYS 394, PHYS 315, or PHYS 469 may be used towards the total credits for the minor.

Students must earn three elective credits in Physics courses at the 300 level or higher.

## Minor in Sustainability

The sustainability minor is an excellent addition to any major. It has an interdisciplinary focus with the shared goal of understanding, preserving and promoting a healthy planet. MSUM is one of only a few universities in the country to approach sustainability across the curriculum. The Sustainability Minor consists of 25 credits.

**Core Requirements (15 credits)**
SUST 200 Nature of Sustainability (3)
ENGL 407 Big City, Big Impact (3)
PSCI 378 Energy and Environment (3)
SUST 421 Systems Thinking (3)
SUST 432 Environmental Dilemmas (3)

**Restricted Electives (10 credits)**
Take one course from the list of science electives.

GEOS 109/GEOS 109L Processes and History of a Dynamic Planet (4)
GEOS 110/GEOS 110L Water, Land, and People: An Introduction to Physical Geography (4)
BIOL 115/BIOL 115L Organismal Biology with Lab (4)

Take two courses from the list of global and human diversity electives:

GEOS 111 Cultures and Regions (3)
HIST 374 Plagues and People (3)
HIST 379 Environmental History (3)
SUST 485 Global Health Perspectives (3)
WS 330 Gender, Justice and the Environment (3)

## Psychology

**Bridges Hall 360, (218) 477-2802**
**Chair:** Christine Malone
**Faculty:** Rochelle Bergstrom, Mary Dosch, Chad Duncan, Sarah Edwards, Joshua Johnson, Brenda Koneczky, Jared Ladbury, Lindsey Leker, Christine Malone, Lisa Stewart, Amber Visina

The Psychology Department offers an undergraduate major and minors in neuroscience and art therapy. An important aspect of the psychology major is the science/research orientation built into the curriculum with a three-course sequence consisting of 1) Psy 230 + 230L Stats for the Behavioral Sciences, 2) Psy 330 Experimental Methods, and 3) Psy 492 Seminar in Psychology. These three courses must be taken in order during separate semesters. The major also involves 18 elective credits, enabling students to explore areas emphasizing preparation for

graduate school or for work in the profession at the bachelor's degree level. Math 127 College Algebra or an equivalent for LASC Goal 4 is recommended prior to taking Psy 230 Statistics for the Behavioral Sciences.

## BA Degree in Psychology

To receive the B.A. Degree in Psychology, the student must meet the minimum university requirements and specific requirements for the program. Completion of 120 credits is required for this degree which includes the Liberal Arts and Sciences Curriculum.

Student Learning Outcomes

- Students will demonstrate fundamental knowledge and comprehension of the major concepts, theoretical perspectives, historical trends, empirical findings, and applications in psychology to discuss how psychological principles apply to behavioral problems.
- Students will learn skills necessary to interpret behavior, study research, apply research design principles, and design research plans.
- Students will develop an awareness of ethically and socially responsible behaviors for professional and personal settings in a landscape that involves increasing diversity.
- Students will demonstrate competence in writing and in oral and interpersonal communication skills.
- Students will apply psychology specific content and skills to enhance professional development.

**Program Delivery Mode**
Land plus: face-to-face where some online courses may be available or required

**Designated Writing Intensive Course for Major**
PSY 330 Experimental Methods (3)

**Core Requirements**
PSY 113 General Psychology (3)
PSY 202 Developmental Psychology (3)
PSY 230 Statistics for the Behavioral Sciences (4)
PSY 261 Personality (3)
PSY 330 Experimental Methods (3) *Upper Level Writing Intensive Course required for major *pre-req PSY 230
PSY 463 Abnormal Psychology (3)
PSY 492 Seminar in Psychology (3) *pre-req PSY 330

PSY 230, PSY 330 and PSY 492 comprise a course sequence and may not be taken concurrently.

Students must take at least 18 elective credits in Psychology courses, 9 of which must be at the 300 level or above.

Total Credits for Major: 120

## Minor in Psychology

24-25 credits

PSY 113 General Psychology (3)
PSY 202 Developmental Psychology (3)
PSY 230 Statistics for the Behavioral Sciences (4)
**OR**
SOC 350 Methods and Statistics for Social Research (4) **OR**
MATH 234 Intro to Probability and Statistics (3)
PSY 261 Personality (3)

Twelve elective credits in Psychology are required. At least six of the 12 must be at the 300 or 400 level.

Total Credits: 24-25

## Minor in Neuroscience

22 credits

The neuroscience minor is designed to enable students in a variety of majors to explore the important and rapidly expanding field of neuroscience. The minor enhances students' preparation for a variety of careers and/or graduate study in neuroscience and health-related professions. Students are engaged in the study of brain science, its intersection with cognition and behavior, and its many applications to solving real-world problems.

**Core Requirements (10 credits)**
PSY 235 Introduction to Neuroscience (3)
PSY 345 Brain and Behavior (3)
BIOL 311 Neurobiology (4)

**Electives (12 credits)**

Required-Complete a minimum of 3 credits from each group:
Group I: Biosciences
BIOL 402 Principles of Animal Behavior (3)
BIOL 360 Cellular and Molecular Physiology (4)
Group II: Psychology
PSY 348 Cognitive Psychology (3)
PSY 360 Sensation and Perception (3)

Electives – Complete a minimum of 6 credits from the following:
BIOL 341 Genetics (4)
BIOL 360 Cellular and Molecular Physiology (4)
BIOL 365 Developmental Biology (4)
BIOL 402 Principles of Animal Behavior (3)
CHEM 400 Biochemistry I (3)
PSY 202 Developmental Psychology (3)
PSY 317 Alcoholism and Drug Abuse (3)
PSY 342 Learning and Memory (3)
PSY 348 Cognitive Psychology (3)
PSY 360 Sensation and Perception (3)
PSY 463 Abnormal Psychology (3)

## School of Nursing and Healthcare Leadership

**Hagen Hall 213, (218) 477-2693**
**Co-Chairs: Jitendra Singh & Carol Roth**
**Faculty:** Diane Erickson, Jill Holmstrom, Nancy Moore, Amber Reed, Stacey Roche, Carol Roth, Brandi Sillerud, Jitendra Singh, Jim Sterling, Nancy Stock, Alicia Swanson, Tracy Wright

The School of Nursing and Healthcare Leadership prepares undergraduate and graduate students in nursing and/or healthcare administration for life-long learning, caring service, leadership, and global citizenship. With an interdisciplinary approach in programming, students tackle real-world issues from a variety of viewpoints. Faculty members provide dynamic and comprehensive curricula that focus on current issues in the expanding areas of healthcare. Students in each major develop the skills and abilities essential to support careers as leaders in healthcare.

To accomplish this, the SNHL offers three undergraduate/baccalaureate majors: the RN-to-BSN completion program (RN-BSN), the 4-year Bachelor of Science in Nursing (BSN) program, the Bachelor of Science in Health Services Administration (HSAD, major or minor; also long term care emphasis option), and the Bachelor of Arts in Leadership & Innovation in Aging Studies (LIAS). The SNHL also offers a Master of Science in Nursing (with two emphases), three certificates, and Master of Healthcare Administration (MHA) (see graduate bulletin). In addition, the SNHL offers online certificates in Long Term Care Administration and Healthcare Leadership, Quality & Patient Safety.

MSUM's online RN-to-BSN completion program (RN-BSN) is a pathway for career advancement for RNs who have already completed an associate degree in nursing. The coursework is totally online with applied and experiential learning opportunities arranged in the student's geographical area (for out-of-MN students, enrollment may depend on the State Board of Education approvals). The program plan and online option offers students the opportunity to study at their own unique and flexible pace. The RN-BSN curriculum is informed by professional standards and with input from employers, industry, and nursing experts. The program has decades of strong history and is taught by faculty who know the students and appreciate the RN base from where students begin.

The 4-year Bachelor of Science in Nursing program (BSN) at MSUM is intended for individuals wishing to attain a bachelor of nursing degree who are not currently registered nurses. This program is a member of the Minnesota Alliance for Nursing Education (MANE).

The Bachelor of Science in Health Services Administration program develops future leaders of healthcare in all realms to transform healthcare across the life and care delivery spectrum to best

serve the needs of a changing world. Students complete the liberal studies requirements and courses specific to business and healthcare topics. The final internship provides students with a solid experience immediately prior to graduation.

The Health Services Administration program is approved by the Minnesota Board of Executives for Long-Term Services and Support and North Dakota Long-Term Care Association (NDLTCA). The HSAD program holds membership in the Association of University Programs in Health Administration (AUPHA). The RN to BSN baccalaureate program is approved by the Higher Learning Commission (HLC) for full online delivery. The Master in Health Administration is fully accredited by the HLC and regionally accredited by the North Central Association of Colleges and Schools. The MHA program is fully accredited by the Commission on Accreditation of Healthcare Management Education (CAHME).

The Bachelor of Arts in Leadership and Innovation in Aging Studies (LIAS) is a field of study that integrates several disciplinary perspectives on human aging, and includes social work, nursing, healthcare leadership, long-term care administration, psychology, innovations in aging, and biology. This degree prepares students for careers in healthcare, human services, senior support services/elder care facilities, research, and government organizations. Nurses, social workers, counselors, healthcare leaders, psychologists, business majors, life enrichment managers, and other healthcare professionals will also benefit from the degree in LIAS. The major explores the aging process of individuals and societies and encompasses the study of physical, mental, and social changes; the investigation of societal changes resulting from an aging population; and the application of this knowledge to policy and program development. In addition, student will learn to advance as communicators, innovative problem solvers, culturally sensitive and responsive leaders as they prepare to work in senior support services.

In addition to the programs above, students have the option to double major in Economics and Leadership & Innovation in Aging Studies; Project Management & Health Services Administration; Psychology and Leadership & Innovation in Aging Studies; RN-BSN & Health Services Administration; and Social Work and Leadership & Innovation in Aging Studies.

The baccalaureate degree in Nursing and Master's Nursing program at MSUM are accredited by the Commission on Collegiate Nursing Education, One Dupont Circle NW, Suite 530, Washington, D.C. 20036.

More information on all programs can be found at: SNHL website or by contacting the SNHL office @ 218-477-2693.

## BS Degree in Health Services Administration

MSUM offers a completely online/hybrid Bachelor of Science in Health Services Administration program aimed at developing competencies in the field of health services administration. The program serves a variety of students including traditional students seeking a four year undergraduate degree, students who plan to take the Nursing Home Administrator examination to practice in Minnesota, and students seeking coursework to gain expertise in the broad field of health services administration.
To receive the B.S. in Health Services Administration, the student must meet the minimum university requirements and specific requirements for the program. The program is designed to prepare students to take a variety of positions in acute care organizations, clinics, long-term care, government and community health organizations. The program has been approved by the Minnesota Board of Executives for Long-Term Services and Support and North Dakota Long Term Care Administration. It also meets the licensure requirements. Additionally, program is also a member of Association of University Programs in Health Administration (AUPHA). Completion of 120 credits is required for this degree which includes the Liberal Arts and Sciences Curriculum.

**Mission**

The mission of the health services administration program is to prepare students for leadership positions in various healthcare settings. Our graduates are exposed to academic and experiential learning opportunities allowing them to explore the confluence of theory and practice.

**Vision**

The vision of the health services administration program is to transform students into culturally competent, innovative leaders who are prepared to serve in various positions in healthcare.

**Values**

- **Excellence** - the program sets the high standard for academic excellence by providing students an in-depth knowledge of the field of health administration. Partnership with industry leaders and experiential learning opportunities allow students to build administrative and functional skills needed to work in a variety of healthcare industry.
- **Collaboration and Teamwork** - the program strives to offer a curriculum that emphasizes the importance of interprofessional collaboration and teamwork between students, faculty members, graduates of the program and leaders in the healthcare industry.
- **Diversity** - the program guides the students in understanding and developing respect for people from all backgrounds, cultures, and experiences.
- **Continuous Improvement** - the program fosters a culture of continuous improvement to enhance student learning and development. The focus on continuous improvement guides exceptional educational opportunities to our traditional, non-traditional, and working students.
- **Lifelong Learning** - the program encourages lifelong learning by providing opportunities that allow students to enhance their professional competencies and administrative capabilities.

Student Learning Outcomes

- Attain an academic and practical understanding of health services administration based on acquired knowledge of the principles of healthcare finance, management, strategic planning, policy and law.
- Identify the historical, political, and scientific foundations of health services management.
- Understand the legal and ethical basis of professional behavior.
- Exhibit leadership skills necessary for employment in a health care organization.
- Demonstrate the ability to communicate effectively in a clear, concise and professional manner both written and verbally.
- Acquire the ability to problem solve, plan and analyze at the leadership level necessary for employment in the healthcare industry.
- Long term care students will demonstrate the knowledge and skills necessary for licensure as defined by the Minnesota Board of Nursing Home Administrators (for student specializing in Long Term Care).

**Program Delivery Mode**

Online Plus: offered entirely online with face-to-face options available for some/all sections

**Designated Writing Intensive Course for Major**

HSAD 420 - Health Policy and Economics PHIL 318 - Professional Ethics

**Core Requirements (41-44 credits)**

HSAD 218 Introduction to Healthcare and Global Health (3)
HSAD 326 Epidemiology & Introductory Biostatistics (3)
HSAD 350 Evidence-based Program Planning and Research Methods (3)
HSAD 400 Aging in United States: Introduction to Gerontology and Senior Support Care (3)
HSAD 403 Health Informatics (3)

HSAD 414 Healthcare Strategic Planning and Marketing (3)
HSAD 416 Healthcare Leadership and Management (4)
HSAD 417 Quality Management in Healthcare (3)
HSAD 418 Healthcare Law and Ethics (3)
HSAD 419 Healthcare Finance and Reimbursement Methods (3)
HSAD 420 Health Policy and Economics (3)
HSAD 468 Internship Seminar (1)
HSAD 469 Internship (3-6)
OM 380 Methods Improvement (3)

**Related Requirements (21 credits)**
ACCT 230 Principles of Accounting I (3)
HSAD 422 Regulatory Management in Healthcare (3)
MGMT 440 Human Resource Management (3) OR
HSAD 440 Talent Management in Healthcare (3)
MGMT 451 Organizational Behavior (3) **OR**
PMGT 385 Process Leadership (3)
MKTG 270 Principles of Marketing (3)
PMGT 300 Project Management & Scheduling (3)
PHIL 318 Professional Ethics (3)

**Long Term Care Administration Emphasis (6 credits)**
NURS 420 Gerontological Nursing to Promote Successful Aging (3) **OR**
HSAD 401 Health Aspects of Aging (3)
HSAD 421 Long Term Care Administration (3)

## BA Degree in Leadership & Innovation in Aging Studies

Leadership and Innovation in Aging Studies (LIAS) is a field of study that integrates several disciplinary perspectives on human aging, and includes social work, nursing, healthcare leadership, long-term care administration, psychology, innovations in aging, and biology. This degree prepares students for careers in healthcare, human services, senior support services/elder care facilities, research, and government organizations. Nurses, social workers, counselors, healthcare leaders, psychologists, business majors, life enrichment managers, and other healthcare professionals will also benefit from the degree in LIAS. The major explores the aging process of individuals and societies and encompasses the study of physical, mental, and social changes; the investigation of societal changes resulting from an aging population; and the application of this knowledge to policy and program development. In addition, student will learn to advance as communicators, innovative problem solvers, culturally sensitive and responsive leaders as they prepare to work in senior support services. To receive the B.A. degree in the Leadership and Innovation in Aging Studies, the student must meet the minimum university requirements and specific requirements for the program. Completion of 120 credits is required for this degree which includes the Liberal Arts and Sciences Curriculum.

Student Learning Outcomes

- Demonstrate knowledge of theoretical perspectives in leadership and aging.
- Analyze evidence-based research to inform data-driven decisions related to senior support/elder care.
- Analyze the impact of diversity on the aging population.
- Apply the leadership skills necessary for employment in a senior support/elder care setting.
- Design innovative solutions to lead and serve in senior support services/elder care.
- Demonstrate an understanding of how to work with elderly populations in variety of health settings.
- Assess policies related to aging and their influence on services and organizations at the local, national, and global level.
- Apply legal and ethical principles in caring for the aging population.

**Program Delivery Mode**
Online Plus: offered entirely online with face-to-face options available for some/all sections

**Designated Writing Intensive Course for Major**
HSAD 420 Health Policy & Economics (3)

**Core Requirements (25-26 credits)**
HSAD 400 Aging in the US: Intro to Gerontology &

Senior Support Care (3)
HSAD 401 Health Aspects of Aging (3)
HSAD 416 Healthcare Leadership and Management (4)
HSAD 420 Health Policy and Economics (3)
HSAD 422 Regulatory Management in Healthcare (3)
HSAD 468 Internship Seminar (1) and HSAD 469 Internship (3) **OR**
PSY 469 Internship (3)
PHIL 311 Morals and Medicine (3) **OR**
HSAD 418 Healthcare Law and Ethics (3)
PSY 403 Adulthood and Aging (3)

**Restricted Electives (6-7 credits)**
6 to 7 credits in research methods courses – students can choose based on their discipline/interest

ECON 370 Introduction to Econometrics (3)
MATH 234 Introduction to Probability and Statistics (3)
PSY 230 Statistics for the Behavioral Sciences (4)
PSY 330 Experimental Methods (3)
SOC 350 Methods and Statistics for Social Research (4)
SOC 452 Qualitative Methods (3)
SW 415 Research Methods in Social Work (3)
(choose additional 3 credit class from options listed here)
HSAD 326 Epidemiology and Introductory Biostatistics (3)
HSAD 350 Evidence-Based Program Planning and Research Methods (3)
NURS 370 Nursing Research and Evidence-Based Practice (4) (choose additional class from options listed here)

**Electives (15 credits)**
Choose 15 credits from list:
ACCT 230 Principles of Accounting I (3)
ACCT 321 Employment Law (3)
ART 325 Intro to Art Therapy (3)
ANTH 110 Introduction to Cultural Anthropology (3)
BIOL 323 Human Anatomy (4) (L)
BIOL 349 Human Physiology (4) (L)
FINC 340 Financial Management (3)
FINC 360 Principles of Investment (3)
HIST 374 Plagues and People: Disease & the Environment (3)
HLTH 305 Introduction to Nutrition (3)
HLTH 330 Disease Prevention (2)
HSAD 218 Introduction to Healthcare & Global Health (3)
HSAD 403 Health Informatics (3)
HSAD 417 Quality Management in Healthcare (3)
HSAD 419 Healthcare Finance and Reimbursement Methods (3)
HSAD 421 Long Term Care Administration (3)
MGMT 260 Principles of Management (3)
MGMT 440 Human Resource Management (3)
MGMT 451 Organizational Behavior (3)
MKTG 270 Principles of Marketing (3)
NURS 342 Interdisciplinary Care of Diverse Populations (3)
NURS 352 End of Life Patient Care (3)
POL 340 Public Administration (3)
PSY 202 Developmental Psychology (3)
PSY 265 Health Psychology (3)
PSY 463 Abnormal Psychology (3)
PSY 494 Undergraduate Research (3 credits applied to major)
SOC 110 Introduction to Sociology (3)
SOC 120 Social Psychology (3)
SOC 310 Dominant-Subordinate Group Relations (3)
SW 405 Human Behavior and the Social Environment (3)
SW 411 Chemical Dependency (3)
SW 460 Social Policy and Policy Practice (3)
SW 490 Topics in Social Work (3)

## BS Degree in Nursing

The Bachelor of Science in Nursing (BSN) program at Minnesota State University Moorhead (MSUM) is intended for individuals wishing to attain a BSN who are not currently registered nurses. MSUM is a member of the Minnesota Alliance for Nursing Education (MANE). MANE is an alliance of Minnesota nursing programs, using a common, innovative, concept-based baccalaureate curriculum. The alliance is a partnership between community colleges, Metropolitan State University, and MSUM. MANE is dedicated to increasing the educational capacity for attainment of a

baccalaureate degree in nursing. The MANE BSN program plan at MSUM is an eight semester (including summers), 120 credit baccalaureate curriculum. It is based on a set of core competencies that are intended to prepare graduates to provide care to individuals, families, and communities in health promotion, acute or chronic illness, and at the end of life. Students are admitted per holistic admission criteria. Please see the program website for further information. Completion of 120 credits is required for this degree which includes the Liberal Arts and Sciences Curriculum.

Student Learning Outcomes

- Integrate reflection, self-analysis, self-care, and lifelong learning into nursing practice.
- Demonstrate leadership skills to enhance quality nursing care and improve health outcomes.
- Evaluate best available evidence utilizing informatics to guide decision making.
- Collaborate with inter-professional teams to provide services within the broader health care system.
- Adapt communication strategies to effectively respond to complex situations.
- Promote ethical practice and research within the nursing discipline and organizational and political environments.
- Practice holistic, evidence-based care including diverse and underserved individuals, families, communities, and populations.

**Program Delivery Mode**
Land plus: face-to-face where some online courses may be available or required

**Designated Writing Intensive Course for Major**
NURS 444 Evidence-Based Nursing Practice (3) NURS 464 Nursing Leadership II (4)

**Core Requirements (65 credits)**
NURS 270 Health Promotion and the Role of the Professional Nurse (4 theory/2 lab/3 clinical)
NURS 275 Nutrition and the Role of the Professional Nurse (2)
NURS 280 Chronic & Palliative Care (3 theory/1 lab/3 clinical)
NURS 282 Pharmacology and the Role of the Professional Nurse (3)
NURS 285 Applied Pathophysiology (2)
NURS 361 Acute & Complex Care (3 theory/1 lab/3 clinical)
NURS 362 Applied Pathophysiology for Nursing II (2)
NURS 364 Nursing Leadership I (2 theory/1 clinical)
NURS 406 Nursing Care of the Family (3 theory/1 clinical)
NURS 444 Evidence-Based Nursing Practice (3) (WI)
NURS 459 Population-Based Care (5 theory/2 clinical)
NURS 464 Nursing Leadership II (4) (WI)
NURS 446 Nursing Informatics (2)
NURS 492 Integrative Seminar & Practicum (4 theory/3 clinical)
SUST 485 Global Health Perspectives (3) (WI)

**Related Requirements (27 credits)**
PSY 113 General Psychology (3)
PSY 202 Developmental Psychology (3)
COMM 285 Intercultural Communication (3)
ENGL 286 Writing for the Workplace (3)
BIOL 236 Introduction to Microbiology (4)
BIOL 125 Human Anatomy & Physiology I with Lab (4)
BIOL 126 Human Anatomy & Physiology II with Lab (4)
CHEM 110 Fundamentals of Chemistry (3) OR goal area 3 CHEM course equivalent

## RN-BSN

MSUM's online RN-to-BSN completion program is a pathway for career advancement of RNs who have already completed an associate degree in nursing. The coursework is totally online with applied and experiential learning opportunities arranged in the student's geographical area (for out-of-MN students, enrollment may depend on the State Board of Education approvals). The program plan and online option offers students the opportunity to study at their own unique, flexible pace. The RN-BSN curriculum is informed by professional

standards and with input from employers, industry and nursing experts. The program has decades of strong history and is taught by faculty who know the students and appreciate the RN base from where students begin. Completion of 120 credits is required for this degree which includes the Liberal Arts and Sciences Curriculum.

**Admission Requirements**

Admission to the RN-BSN program is outlined on the program webpage

A student who graduates from one of MSUM's partner schools with an AD-RN may be eligible to complete the BSN through the Dual Acceptance Program, which is outlined on the RN-BSN Dual Acceptance Program Webpage.

Applicants to the RN-BSN program must be licensed RNs or eligible for licensure by RN-BSN program start.

A majority of qualified applicants have an overall GPA greater than 2.75; however, applications will be evaluated holistically on a number of criteria. Please see program webpage listed above for further details on the program admission criteria as well as application requirements, procedures, and deadlines.

Student Learning Outcomes

*Graduates of the MSUM RN-BSN program will be able to:*

- Integrate concepts from the arts, humanities and sciences as the basis for critical thinking and decision making in the art and science of nursing.
- Recognize the role of nursing leadership to promote safe, high quality care with a focus on continual evaluation and improvement within a variety of organizations and systems.
- Identify, evaluate, and synthesize evidence to improve healthcare safety, quality, and outcomes.
- Utilize technology and information systems to communicate, manage information, and support decision making to improve patient outcomes within healthcare delivery systems.
- Understand the impact of healthcare policy, finance, reimbursement, and regulatory environments on the structure and function of the healthcare system.
- Communicate clearly and collaborate effectively to promote high quality and safe patient care.
- Utilize prevention at all levels to promote wellness and disease prevention for individuals, families, communities and diverse populations.
- Demonstrate professional values through commitment to ethical practice, ongoing learning and professional development.
- Practice caring, competent, holistic, patient-centered nursing with diverse groups in a variety of settings across the lifespan.

**Program Delivery Mode**

Online Exclusive: must be completed entirely online; no face-to-face options available

**Designated Writing Intensive Course for Major**

NURS 473 - Professional Pathways

**Core Requirements (31 credits)**

NURS 301 Transitions (4)
NURS 303 Holistic Family Health Nursing (4)
NURS 342 Interdisciplinary Care of Diverse Populations (3)
NURS 348L Public Health Nursing (4)
NURS 370 Nursing Research and Evidence-Based Practice (4)
NURS 420 Gerontological Nursing to Promote Successful Aging (3)
NURS 472 Leadership and Professional Development (3)
NURS 473 Professional Pathways (3)

Choose one course out of the following four courses:

NURS 485/SUST 485 Global Health Perspectives (3)
NURS 462 3 Ps for the BSN: Pathophysiology, Pharmacology & Physical Assessment (3)

NURS 354 Integrative Nursing (3)
NURS 352 End of Life Nursing Care (3)

**Program Requirements**

Graduates of the RN-BSN program will have a minimum of 120 total credits, including key transfer credits. There are 31 core required MSUM nursing credits in the RN-BSN program (listed above), which also apply toward the required 40 upper division credits (300-400 level courses) for a baccalaureate degree from MSUM. Further, MSUM requires completion of general education credits in the Liberal Arts and Sciences Curriculum (LASC) for all baccalaureate degree graduates.

There are generous transfer credit considerations for those with Associate of Arts degrees (e.g., for those coming from the MN Transfer system, or from programs with articulation agreements with MSUM). Transcripts are evaluated individually to determine the extent of transfer credit awarded. Once admitted, students are partnered with an academic advisor to discuss their individual and most efficient path to their BSN.

**Accreditation**

The RN-BSN, 4-year Bachelor of Science in Nursing (BSN) and Master of Science in Nursing (MSN) programs at Minnesota State University Moorhead are accredited by the Commission on Collegiate Nursing Education (http://www.ccneaccreditation.org).

## Minor in Health Services Administration

22 credits

ACCT 230 Principles of Accounting I (3)
HSAD 414 Healthcare Strategic Planning & Marketing (3)
HSAD 416 Healthcare Leadership & Management (4)
HSAD 418 Healthcare Law & Ethics (3)
HSAD 419 Healthcare Finance & Reimbursement Methods (3)
MGMT 260 Principles of Management (3)
MGMT 440 Human Resource Management (3)

## Minor in Leadership & Innovation in Aging Studies

25 credits

Leadership and Innovation in Aging Studies (LIAS) is a field of study that integrates several disciplinary perspectives on human aging, and includes social work, nursing, healthcare leadership, long-term care administration, psychology, innovations in aging, and biology. This degree prepares students for careers in healthcare, human services, senior support services/elder care facilities, research, and government organizations. Nurses, social workers, counselors, healthcare leaders, psychologists, business majors, life enrichment managers, and other healthcare professionals will also benefit from the degree in LIAS. The program explores the aging process of individuals and societies and encompasses the study of physical, mental, and social changes; the investigation of societal changes resulting from an aging population; and the application of this knowledge to policy and program development. In addition, student will learn to advance as communicators, innovative problem solvers, culturally sensitive and responsive leaders as they prepare to work in senior support services.

**Core Requirements (16 credits)**

HSAD 400 Aging in the US: Introduction to Gerontology and Senior Support Care (3)
HSAD 401 Health Aspects of Aging (3)
HSAD 416 Healthcare Leadership & Management (4)
POL 416 Elder Law (3) **or** HSAD 422 Regulatory Management in Healthcare (3)
PSY 403 Adulthood and Aging (3)

**Restricted Electives (9 credits)**

Choose 9 credits from the following:
HLTH 305 Introduction to Nutrition (3)
HSAD 403 Health Informatics (3)
HSAD 417 Quality Management in Healthcare (3)
HSAD 421 Long Term Care Administration (3)
POL 470 Government Benefits (3)
NURS 352 End of Life Patient Care (3)
PSY 317 Alcoholism and Drug Abuse (3)
SW 411 Chemical Dependency (3)

## Certificate in Healthcare Leadership, Quality & Patient Safety

12 credits

The undergraduate online certificate in Healthcare leadership, quality and patient safety is a four course program designed to provide students an overview of healthcare leadership. Students learn to improve the process of care delivery for patients/residents through leadership strategies, health policy and initiatives, quality improvement methods and patient safety tools, and the strategic planning process, among many topics. Students develop an understanding of programs designed to reduce the preventable medical errors, accidents, and injuries to minimize loss and improve outcomes for patients and health care organizations. This program is designed for students in a variety of health-care related majors such as nursing (RN to BSN), social work, exercise science, and speech/hearing/language sciences.

**Admission Requirements**

Students are admitted to MSUM and are at the junior or senior level upon completion of the coursework for the certificate.

Student Learning Outcomes

- Describe management theories and organizational behavior theories as they apply to healthcare organizations.
- Demonstrate an understanding of the language, tools, and techniques used in the quality improvement of healthcare organizations.
- Analyze the issues faced by the US healthcare system and identify the need for application of quality improvement strategies.
- Describe quality improvement theories, change management and evaluation methodologies as they apply to healthcare organizations.
- Verbalize the impact of new technology and data collection capabilities on the success of healthcare operations.
- Explain quality improvement/assurance initiatives in health facilities including skilled nursing facilities and other senior support organizations.

Choose 4 courses from the following set:

HSAD 403 Health Informatics (3)
HSAD 414 Healthcare Strategic Planning and Marketing (3)
HSAD 417 Quality Management in Healthcare (3)
HSAD 420 Health Policy and Economics (3)
HSAD 422 Regulatory Management in Healthcare (3)

## Certificate in Long Term Care Administration

18 credits

The Certificate in Long Term Care Administration expands the student's understanding of senior support services; legal, ethical and financial implications; leadership strategies; and design of living environments for aging populations.

Student Learning Outcomes

- Describe leadership and organizational management strategies needed to work in long-term care settings.
- Describe the needs of the aging populations and resources available to them.
- Demonstrate concepts of fiscal resource allocation and information systems specific to senior support services.
- Describe performance improvement initiatives used in long-term care settings to improve quality, safety, and efficiency of resident services.
- Describe federal and state laws, rules, and regulations as they apply to long-term care settings.

HSAD 400 Aging in the United States: Introduction to Gerontology and Senior Support Care (3)
HSAD 403 Health Informatics (3)
HSAD 417 Quality Management in Healthcare (3)
HSAD 419 Healthcare Finance and Reimbursement

Methods (3)
HSAD 421 Long Term Care Administration (3)
HSAD 422 Regulatory Methods in Health Care (3)

## Accounting

***[ACCT 230] Principles of Accounting I***

From a user's perspective, an introduction to the content and concepts underlying the three basic financial statements prepared by management for use by investors and creditors. Includes financial statement analysis.

***[ACCT 231] Principles of Accounting II***

An introduction to the content and concepts of financial information for management's use in directing operations. Topics include cost behavior, product costing, actual and standard costs, cost-volume-profit analysis, relevant costs, operational and capital budgeting, and present value analysis.

***[ACCT 280] Legal Environment of Business***

Introduction to the American legal system, legal and regulatory environment of business, ethics and social responsibility, contracts, agency, and business organizations.

***[ACCT 290] Topics in Accounting***

Topics in Accounting. Course may be repeated as topic changes.

***[ACCT 306] Contracts and Business Entities***

Study of contracts, agency and business organizations (including all forms of partnerships, corporations and limited liability companies).

***[ACCT 321] Employment Law***

An exploration of the legal nature of the employment relationship including contract and liability issues and major stages of the employment relationship, including hiring, evaluation and termination. Coverage includes antidiscrimination law and the Family and Medical Leave Act.

***[ACCT 325] Intermediate Accounting I***

This first course in Intermediate accounting begins with a review of the conceptual framework and the accounting process. This is followed by a deeper exploration into the balance sheet and financial disclosures, the income statement and comprehensive income, including revenue recognition, and the statement of cash flows. In depth measurement and presentation of current assets, fixed assets, and intangible assets will be presented.

***[ACCT 326] Intermediate Accounting II***

This is the second course in the Intermediate Accounting series. This course will explain the measurement and reporting of current liabilities, long term liabilities, stockholders' equity. Additional topics include: deferred taxes, error corrections, lessee transactions, fair value measurement, foreign currency transactions, and financial performance evaluation.

***[ACCT 332] Intermediate Accounting III***

This third course in the intermediate sequence covers the topics of accounting for income taxes, pensions and other post-retirement benefits, shareholders' equity, share-based compensation and earnings per share, and the statement of cash flows. Students will also conduct FASB research using the Financial Accounting Standards Board online codification database.

***[ACCT 375] Accounting Systems***

Developing, organizing, and using accounting data in a computerized environment; emphasis on accounting applications using computerized spreadsheets, databases, and general ledger software.

***[ACCT 390] Topics in Accounting***

This course may be repeated since content may vary.

***[ACCT 407] Commercial Transactions, Property and Special Topics***

Detailed study of Uniform Commercial Code (sales contracts, commercial paper and secured transactions), creditors' remedies, bankruptcy, property (real, personal and intellectual), bailments, trusts and estates, insurance law and professional responsibilities.

***[ACCT 430] Advanced Accounting***

Advanced topics in accounting include accounting research, business combinations, consolidated financial statements, translation of foreign currency financial statements, derivatives and hedge accounting, leases, and employee benefit plans.

***[ACCT 441] Tax Accounting I***

Outline of federal tax system; tax professional responsibilities, tax procedures, and tax research; concepts of gross income and deductions; tax computations and tax credits; property transactions; individual tax planning; retirement planning; taxation of C corporations, S corporations, partnerships, limited liability companies, and tax-exempt organizations.

***[ACCT 443] Tax Accounting II***

Advanced topics in taxation, including income tax planning and income tax return preparation for corporations, S corporations, partnerships, limited liability companies, exempt entities, estates and trusts.

***[ACCT 455] Governmental, Not for Profit, and Cost Accounting***

This course presents the financial statements and select transactions for state and local governments, and not for profit entities. Cost measurement and analysis for internal managerial decision making is also covered.

***[ACCT 460] Audit I***

Coverage includes the theory of auditing, generally accepted auditing standards, audit reports, quality control, ethical decisions, accountants' liability, fraud detection, audit objectives and procedures, management assertions, audit planning analytical review, risk analysis, internal control evaluation, and tests of controls.

***[ACCT 461] Audit II***

Coverage includes the concepts of testing balances, auditing by cycles, audit sampling and applications, and compilation and review engagements. There will be additional coverage of generally accepted auditing standards, audit reports, quality control, fraud detection audit objectives and procedures, management assertions, audit planning, analytical review, risk analysis, internal control evaluation, and tests of controls. The course will include an integrated audit case.

***[ACCT 469] Internship***

A supervised practical experience in accounting. A maximum of 12 internship credits may be applied to the degree.

***[ACCT 490] Topics in Accounting***

This course may be repeated since content may vary.

***[ACCT 497] Independent Study***

Independent reading or research allowing an individual student to explore a specific topic under faculty supervision.

## American Multicultural Studies

***[AMCS 100] America's Mosaic***

This course is an introduction to the cultural experiences of historically underrepresented cultures in the U.S. (African American, American Indian, Hispanics, and Asian Americans). The purpose of this course is to make sense of the diversity between and within cultures. MnTC Goal 2.

***[AMCS 220] Asian-American Experience***

This course studies the changing images of Asians in America, and discusses how race, class, and gender have shaped the experiences of different Asian ethnic groups. Same as HIST 220. MnTC Goal 7.

***[AMCS 233] Education and Multicultural America***

This course provides an introduction to multicultural perspectives on American education. Given that the United States is becoming more culturally diverse and operates within an increasingly globalized world, citizens need to be equipped to understand the diverse cultures with which they work and interact. This course exposes students to the experiences and challenges of African Americans, American Indians, Chicano/Latinos and Asian Americans in the U.S. educational system from historical and contemporary perspectives. The course content both demystifies stereotypes and myths attributed to these groups and stresses the marvelous complexity and diversity of these groups as they seek equitable access to quality education. MnTC Goal 7.

***[AMCS 302] Latinos of the Caribbean: Cuba, Dominican Republic, and Puerto Rico***

This course explores the economic, political, and cultural globalization of the Spanish Caribbean from an interdisciplinary, analytical, and historical framework. The impact of globalization is examined through migration (economic and political) and remittances; emergence of transnational societies; political transnational movements such as the Generacion Y, the Cuban blog; and cross-border exchanges in cultural trends. MnTC Goal 8.

***[AMCS 303] Latinos in the United States***

An interdisciplinary study of the diversity of the culture, history, economic and political situation of the Latino population in the United States. MnTC Goal 7.

***[AMCS 372] Dynamics of Prejudice and Oppression***

An examination of theoretical dimensions, dynamics and consequences of prejudices and oppression based on race, class, gender, and ability. Students will be expected to recognize, critically analyze and identify both shared and unique structural dimensions of various forms of oppression and discuss potential strategies for dismantling oppression. MnTC Goal 7.

## Animation

***[ANIM 116] Foundations in Animation***

A foundation course in which students learn the basic principles of animation, develop visual language, storytelling, and observation skills. Students explore various styles and methods of animation including 2D and 3D animation. Emphasis is placed on drawing, analysis of action, analysis of performance, blocking of action, and staging. Various technical topics covered include script, storyboarding, framerates, editing animatics, scanning, working with image sequences, aspect ratios, alpha channels, vector vs. raster art, compositing, and rendering.

***[ANIM 216] 3D Modeling***

3D Modeling is a course in which students gain hands-on experience building three-dimensional models through the use of computer-generated images. A variety of disciplines and applications of 3D modeling are surveyed, including how modeling is used by forensic animators, engineers, architects, and game developers. Iterative concept development and previsualization are used in the creation of 3D models and 3D environments.

***[ANIM 290] Topics in Animation***

Topics in Animation course which may be repeated when the topic changes.

***[ANIM 316] 3D Animation***

Building on the principles of animation and 3D modeling, this course focuses on the study of 3D animation techniques. Students will create animatics, design and animate scenes of varying complexity, and gain experience with 3D animation workflow.

***[ANIM 366] 2D Animation and Motion Graphics***

ANIM 366 is designed to teach the essentials of 2D animation and motion graphics, ranging from beginning concepts of animation and movement

over time, to advanced concept analysis and development. Motion graphics can be found in a wide range of media forms: broadcast, internet, animation, and films, to name a few. This course gives students an opportunity to explore the elements of time and space to convey messages and meaning through type, image, and sound for the screen. Individual creativity is stressed as well as the understanding and use of industry-standard software for developing motion graphics. Both collaborative and individual exercises and assignments are given during the semester.

***[ANIM 375] Stop-Motion Animation***

This course introduces students to traditional stop-motion animation techniques. Works from animators across the globe will provide a survey of animation history and a cross section of traditional animation styles. Lectures and demonstrations will introduce animation techniques including pixiliation, hand-drawn animation, cut-out animation, cel animation, claymation, as well as a brief introduction to armatures and models. Students will begin with the foundational principles of animation, as applied to stop-motion, and explore frame manipulation in time-based media. Pre-production tools and concept development will be emphasized in the design process. Through hands-on projects, students will explore animation practices while making connections to animation theory and aesthetics.

***[ANIM 390] Topics in Animation***

Topics in Animation course which may be repeated when the topic changes.

***[ANIM 416] Animation Studio***

Advanced study in 3D and 2D animation techniques, the Animation Studio challenges students to advance their conceptual development, storytelling abilities, and technical skills, while collaborating and leading through key animation crew roles.

***[ANIM 469] Internship***

Internship in Animation

***[ANIM 490] Topics in Animation***

Topics in Animation course which may be repeated when the topic changes.

***[ANIM 492A] Capstone Research***

A preparatory practicum class involved in research and pre-production activities designed to facilitate the senior Capstone Project class (ANIM 492B).

***[ANIM 492B] Capstone Project***

Capstone course for Animation majors; proposal, completion, and presentation of projects; pre-professional skills; written exam integrating and applying knowledge from separate courses. Grade of "C" or higher is required for graduation.

***[ANIM 494] Undergraduate Research in Animation***

Guided research designed to increase professionalism of the student's creative work in all aspects of design production.

***[ANIM 497] Independent Study in Animation***

Independent Study in Animation

## Anthropology

***[ANTH 100] Debating Humankind***

Designed to instruct students in critical thinking skills using multicultural examples spanning time and space. Students will review and engage in a series of debates, including among others, topics on race, the importance and nature of science, cultural norms, how humans are different from other animals, and the validity of research methods presently used in social science. MnTC Goal 2.

***[ANTH 110] Introduction to Cultural Anthropology***

Introduction to the concept of culture and to the study of language. MnTC Goal 8.

***[ANTH 115] Introduction to Archaeology***

Review of archaeological study with special emphasis on the interdisciplinary nature of archaeology. Archaeological methods and techniques are explained as aspects of the process

of discovery. Introduction to the major phases in human culture history from the earliest toolmakers to the rise of civilization. MnTC Goal 5.

***[ANTH 120] Introduction to Physical Anthropology***

A survey of the field of physical anthropology. The course will include a review of the fossil record, concentrating on theories about human evolution. Other topics include taphonomy, primate behavior and taxonomy, and the origins of contemporary human variation. MnTC Goal 3.

***[ANTH 202] American Indian Culture***

A historical perspective on living, traditional cultures of American Indian groups. Topics include tribal entities, religion, arts, life-styles and ecological adaptations. MNTC Goal 7.

***[ANTH 217] The Rise of Civilization***

Examines the origins of agriculture and civilization, with special attention to a comparison of long-term cultural developments in the Old World and New World. MnTC Goal 5.

***[ANTH 248] Ideas of Culture***

Examination of some of the major ideas in the history of anthropology from the 19th and 20th centuries. This will include concepts such as evolution, culture, structure, function, and relativism.

***[ANTH 265] Language and Culture***

The relationship between language and culture with emphasis on historical linguistics, sociolinguistics, psycholinguistics, and ethnolinguistics. MnTC Goal 5.

***[ANTH 300] Contemporary Archaeology***

An overview of the practice of archaeology emphasizing methods, theoretical foundations, and the role of cultural resource management in contemporary society.

***[ANTH 301] Archaeological Prospection***

Examination of geophysical prospecting methods available for archaeological research. Emphasis on the conceptual basis of different prospecting methods and their application in archaeological and geotechnical studies. Hands-on experience with geophysical instruments. Same as GEOS 301.

***[ANTH 306] Medical Anthropology***

A survey of the distributions of illness throughout the world with emphasis on the definitions, treatments, and practitioners as well as the cultural settings producing them. MnTC Goal 8.

***[ANTH 307] Ecological Anthropology***

An anthropological examination of cultural adaptation to the environment. Detailed analysis of the major human subsistence strategies in diverse ecological settings worldwide. MnTC Goal 10.

***[ANTH 308] Migration and Human Adaptation***

An examination of migration as an adaptive strategy used by people in adjusting to changing conditions in their environment. Explores types of migration as well as motivations and consequences of human movement in both the past and present and around the world. MnTC Goal 8.

***[ANTH 311] American Indians and the Environment***

To what degree does the image of the "ecological Indian" faithfully reflect American Indian ideas about the environment through time? This course will examine the idea of the "ecological Indian," the idea of American Indians were/are model ecologists and conservationists. We will explore the concept of sustainability among American Indians and the relationship between American Indian communities and the environment through an examination of their unique adaptations that they have made within the 10 major geo-cultural regions of native North America: Arctic, Subarctic, Great Basin, Plateau, Northwest Coast, California, Great Plains, Northeast and Southeast. MnTC Goal 10.

***[ANTH 312] Anthropology of Tourism***

Anthropological examination of the global tourist industry, with particular emphasis on impacts on local populations and ecosystems. The ethical dimensions of tourism will be the primary concern in this course. Case studies will be used to illustrate principles of sustainable, responsible, participatory tourism. MNTC Goal 9.

***[ANTH 313] Understanding Contemporary Africa***

This course examines societies and cultures of contemporary Sub-Saharan Africa to promote a better understanding of the continent's place in the global system. MnTC Goal 8.

***[ANTH 314] American Indian World Views***

This course examines the cultural knowledge of American Indian groups that they employ to understand the world around them. It examines their belief systems, religious rituals, oral traditions, and cosmologies. MnTC Goal 7.

***[ANTH 315] North American Archaeology***

An overview of the prehistory of North America from the end of the Ice Age.

***[ANTH 316] Magic, Witchcraft and Belief***

Introduction to the study of religion in cross cultural perspective. The origins of supernatural beliefs will be studied. Functional and non-functional explanations of religious beliefs will be examined. The relationship between culture change and religious movements will be explored. MnTC Goal 8.

***[ANTH 317] Collapse***

This course explores the notion of societal collapse using ancient societies and archaeological data. A variety of case studies, drawn from diverse cultural and environmental settings, are examined to identify the processes and causes of collapse. Of critical importance is the interplay between society and environment in achieving or failing to attain long-term sustainability. Present day contexts are examined using perspectives gained from the study of the past. MnTC Goal 10.

***[ANTH 325] Reading Landscape: Ways of Seeing***

Explores the landscape concept as developed and applied within anthropology and the geosciences. Considers the interaction of culture and perception in the way we view our physical world. Writing Intensive.

***[ANTH 327] The Aztecs***

This course is an examination of Aztec civilization. Varied perspectives, including native and Spanish chroniclers, archaeological data, and a cross-cultural understanding of archaic states, are employed to derive an understanding of Aztec civilization. MnTC Goal 7.

***[ANTH 329] The Uses of the Past***

An examination of how the past is interpreted to satisfy ideological, political and social needs of groups. Ethical responsibilities related to interpreting the past are combined with understanding the importance of being fair-minded toward others' versions of the past. MnTC Goal 9.

***[ANTH 333] Anthropology of Music***

An anthropological investigation of the relationships between culture and music. It will focus on the core anthropological concepts of cultural relativism, ethnocentrism, and globalization in relation to the cultural contexts of music. It will explore how music relates anthropologically to various aspects of culture, including identity, gender, family, religion, politics, subsistence, economics, and language. Ethnographic examples will be drawn from western and non-western music. MnTC Goal 8.

***[ANTH 337] The Maya***

This course explores the archaeology of the Maya. Varied perspectives, including native, Spanish chroniclers, the archaeological record, and a cross-cultural understanding of archaic civilizations, are employed to derive and understanding of Maya civilization.

***[ANTH 350] Geoarchaeology***

Examines the application of Geoscience methods and techniques to archaeological deposits and materials. Emphasizes foundational concepts in Geoarchaeology, the role of Geoarchaeology in contemporary archaeology, and the application of geoarchaeological knowledge and skills to inform archaeological interpretation.

***[ANTH 360] Applied Ethnographic Methods***

Training in the standard techniques of ethnographic fieldwork with emphasis on applied applications, including research design, interviewing, forms of observation, and the production of ethnographic writings, as well as introducing important debates concerning this process.

***[ANTH 380] Traditional Cultures***

An examination of traditional cultures before widespread westernization, including a review of the anthropological literature, such as ranking, non-market exchange and systems of production, domestic organization, power, authority, and traditional religious systems.

***[ANTH 390] Topics in Anthropology***

Study of various topics in anthropology. This course may be repeated as topics vary.

***[ANTH 450] Field Work in Anthropology***

An applied course in archaeology involving excavations at archaeological sites during the summer months. Emphasis on field techniques including map reading, photography, excavation techniques, artifact processing and analysis.

***[ANTH 451] Archaeology Lab***

Laboratory training in archaeology including inventory, treatment and curation of collections, basic laboratory drawing, photography, data entry and reporting. Students will work on collections from regional archaeological sites.

***[ANTH 455] Field Methods in Geoarchaeology***

Provides field experience with a variety of geoarchaeological techniques applied within the context of an interdisciplinary research program. Research design and the research process will also be emphasized. In addition to the listed pre-requisite, students must have taken at least one introductory course in geology. Same as GEOS 455.

***[ANTH 469] Internship***

A supervised, practical experience in the field. A maximum of 12 internship credits may be applied to the degree.

***[ANTH 490] Topics in Anthropology***

Study of various topics in anthropology. This course may be repeated as topics vary.

***[ANTH 492] Seminar in Anthropology***

Selected topics in Anthropology. Students are expected to do research in subjects related to the topic of the course. May be repeated when topic varies.

***[ANTH 494] Research in Anthropology***

Research in Anthropology

## Art

***[ART 101] Foundation Drawing I***

Introduction to visual elements through various drawing media, emphasizing accurate observation of still-life, nature and the figure.

***[ART 125] Foundation Design***

Introduction to elements and principles of visual language, color, form/shape, line, space and texture as they relate to basic design. The course will include an introduction to constructive, perceptual, symbolic and expressive aspects of color within a variety of relationships.

***[ART 170] Art Appreciation: Content and Form***

Designed for non-art majors, this course introduces basic visual arts vocabulary and design concepts. The course also provides a historical framework and introduction to the diverse media in the visual arts. MnTC Goal 6.

***[ART 203A] Introduction to Ceramics and Clay Processes***

An introduction to the technical and aesthetic issues involved in working with clay. The course covers the fundamental techniques used on the potter's wheel and in handbuilding with clay. Slip work and glazing are also covered.

***[ART 203C] Introduction to Painting***

Study of basic materials, techniques, and formal issues of painting. Topics include historical and contemporary painting approaches. Emphasis on oil and acrylic painting media.

***[ART 203D] Introduction to Printmaking***

An introduction to relief printing, intaglio, lithography and serigraphy.

***[ART 203E] Introduction to Sculpture***

Survey of basic materials, methods, techniques, and concepts associated with space and sculptural forms. Topics include wood and steel construction and fabrication, bronze casting, and mold making.

***[ART 203F] Introduction to Photography***

Introduction to photographic equipment, materials, processes, and philosophy. Includes experiments with paper, film, small camera operation, roll-film processing, enlarging, mounting, and matting.

***[ART 203H] Introduction to Figure Drawing***

Survey of methods, concepts, and techniques for figure drawing. Emphasis on anatomical study as the foundation for both traditional as well experimental and contemporary approaches.

***[ART 203L] Introduction to Digital Illustration***

Study of basic concepts of pictorial illustration in digital media. Both traditional and contemporary trends in image making will be explored.

***[ART 203N] Introduction to Papermaking***

Survey of materials, methods and techniques of hand papermaking.

***[ART 219] Elementary Methods and Materials for Visual and Performing Arts Education***

Students will investigate materials and techniques for creating meaningful expression in the visual and performing arts. Students will research and apply techniques of teaching and learning proven to increase student achievement and provide a well-rounded education for children. Topics include: Social and Emotional learning through the Arts (SEAL), developmental stages of children's art making, lesson planning and practice with art, music, movement and performing arts media and techniques, project-based learning, curriculum development, discussing and critiquing artwork, assessment, organizing museum/gallery experiences for children as well learning how to integrate the arts into the elementary curriculum in personally meaningful, relevant and powerful ways.

***[ART 233] Global Art History I***

This course examines the major developments in architecture, sculpture, painting, and the decorative arts worldwide, from prehistory through the Middle Ages. In addition to cross-cultural comparison of diverse traditions and histories of art, the course will introduce the student to important vocabulary and methods fundamental to the discipline of art history. Art & Design majors should be simultaneously enrolled in Art 233M Global History of Art I: Methods. MnTC Goal 8.

***[ART 233M] Global Art History I: Methods***

In this course students apply the art historical concepts and methods from Art 233 lecture course. It reinforces the knowledge of methods unique to the art historical discipline including informed observation of physical objects combined with historical and formal analysis. Students are shown how to find appropriate research materials in the discipline and how to apply them in a contextual comparative essay. Art & Design majors should be simultaneously enrolled in Art 233.

***[ART 234] Global Art History II***

This course examines the major developments in architecture, sculpture, painting, illustration, the decorative arts, and craft worldwide, from approximately the 13th century through the early modern age (ca. 1750). In addition to cross-cultural comparison of diverse traditions and histories of art, the course will introduce students to important concepts and methods fundamental to the discipline of art history. School of Art majors should be simultaneously enrolled in Art 234M: Global Art History II-Methods. MnTC Goal 8.

***[ART 234M] Global Art History II: Methods***

In this course students apply the art historical concepts and methods from Art 234 lecture course. It reinforces the knowledge of methods unique to the art historical discipline including informed observation of physical objects combined with historical and formal analysis. Students are shown how to find appropriate research materials in the discipline and how to apply them in a contextual comparative essay. Art & Design majors should be simultaneously enrolled in Art 234.

***[ART 235] Global Art History III***

This course examines the major developments in architecture, sculpture, painting, and the decorative arts worldwide, from the Enlightenment Age to the Present. In addition to cross-cultural comparison of diverse global traditions and histories of art, the course will introduce important vocabulary and approaches in the discipline of art history. School of Art majors should be simultaneously enrolled in Art 235M Global Art History III: Methods. MnTC Goal 8.

***[ART 235M] Global Art History III Methods***

In this course, students apply art historical concepts, vocabulary and methods from the Art 235 lecture course to a research paper. It introduces protocols unique to the art historical discipline including informed observation of physical objects combined with historical, cultural, and formal analysis. Students are shown how to locate, evaluate and cite appropriate art historical research materials and how to apply them in a research assignment. School of Art majors should be simultaneously enrolled in Art 235.

***[ART 260] Professional Practices I***

Seminar focusing on career exploration and skills for achieving success in art school.

***[ART 270] Visual Culture: Practices in Critical Looking***

This course explores how different visual media from fine art, mass media, science and everyday life intersect to form a cultural discourse, and develops ways to critically observe and engage this discourse. Different ways of seeing and interpreting visual images (from painting, advertisements, graffiti, tattoos, maps, film, social media, architecture etc.) will be developed. Visual imagery interpreted in different media and contexts will be investigated as they correlate with political and social power, globalism, gender, race, sexual identity, space, and other social questions and institutions.

***[ART 290] Topics in Art***

Studio, seminar or discussion of topics not included in other art courses. Up to three credits may be applied to the major.

***[ART 303A] Intermediate Pottery/Wheel Throwing***

An in-depth investigation involving the skills, techniques, and aesthetics of forms thrown on the potter's wheel. Exercises in decorating as well as firing are included. Students may take 303A, 304A, and 305A in any order.

***[ART 303C] Painting: Technique, Color and Composition***

Emphasis on technical skills, color strategy and compositional methods. The class projects are designed for developing students' personal subject matter. Specific paint applications and technical information will be provided in order to develop painting skills.

***[ART 303D] Printmaking: Relief, Paper, Book***

Students will explore an intermediate level of printmaking focusing on expanded techniques in relief printmaking, as well as exploring some bookbinding and papermaking. Assignments will allow students to incorporate other techniques and concepts of their choosing, but at least, in part, will address some of the techniques in relief printmaking and book arts in contemporary and historical applications.

***[ART 303E] Sculpture: Technique and Object Making***

This course expands on furthering student's skill level with tools and technical abilities. The course will emphasize the exploration of object making while assisting the development of a conceptual vocabulary.

***[ART 303F] Contemporary Digital Concepts***

This course is dedicated to the expanded exploration of digital image making processes and alternative methods of display with an emphasis on photographic concepts and contemporary digital practices.

***[ART 303H] Scientific Illustration***

Emphasis on processes and techniques of scientific illustration in traditional media. Botanical, anatomical, and other subjects addressed. May be repeated for up to 8 credits.

***[ART 304A] Intermediate Handbuilding/Ceramic Sculpture***

This course delves into the techniques of producing larger sculptural objects as well as conceptual approaches to sculpture. The course also introduces the use of paperclay and alternative surface effects appropriate to sculptural work. Students may take 303A, 304A, and 305A in any order.

***[ART 304C] Figure Painting***

Refinement of technical facility and concentration on the subjects of portraiture and figure painting. Study of portraiture/figure painting and their compositional strategies. In-depth studio investigation in historical and contemporary portrait/figure painting.

***[ART 304D] Printmaking: Intaglio and Photo-based Printmaking***

Students will explore an intermediate level of printmaking focusing on expanded techniques in intaglio printmaking and photo-based applications. Assignments will allow students to incorporate other techniques and concepts of their choosing, but at least, in part, will address intaglio and photo-based printmaking in contemporary and historical applications.

***[ART 304E] Sculpture: Installation and Space***

This course will explore the use space, site and place. The goal of the course is to assist students in the utilization three-dimensional space beyond the object to actualize fully realized works of art.

***[ART 304F] Experimental Techniques in Photography***

This course is dedicated to understanding an expanded definition of the photographic medium from both an historical and interdisciplinary viewpoint. Explorations can include early photographic processes, new and mixed media processes with a core photographic component, and both lens and non-lens based forms of image making.

***[ART 304H] Contemporary Drawing Concepts and Methodologies***

Emphasis on interdisciplinary and multi-media approaches to drawing. The boundaries of "drawing" will be pushed. Non-representational and representational subjects explored. May be repeated for up to 8 credits.

***[ART 305A] Technical Ceramics***

Explores the fundamentals of glaze and clay chemistry with an emphasis on glaze development and coloration. Students also investigate firing theory, image transfers, mold making and slip casting. Students may take 303A, 304A, and 305A in any order.

***[ART 305C] Painting: Abstract and Mixed Media***

Emphasis on the historical, theoretical and conceptual development of abstraction. Further understand color theory, elements of art and principles of design as basics for abstraction. Personal subject matters will include landscape, human figure, architectural, interior space or non-objective. Students may take ART 304c and 305c in any order.

***[ART 305D] Printmaking: Planographic and Digital Applications***

Students will explore an intermediate level of printmaking focusing on expanded techniques in lithography, screen-print, and digital applications. Assignments will allow students to incorporate other techniques and concepts of their choosing, but at least, in part, will address lithography, screen-print, and digitally-based printmaking in contemporary and historical applications.

***[ART 305E] Sculpture: Concepts in Materiality***

This course will explore the use of materials and making processes to realize a finished work of art. There will be an exploration of the conceptual, formal, and poetic implications of different materials in art-making.

***[ART 305F] Untrue Narrative***

This course is dedicated to the deconstruction of photography as a truthful medium through the use of fabricated narratives. Explores notions of self-contained narratives, as well as, linear and nonlinear visual storytelling in photography.

***[ART 305H] Sequential Art***

This course investigates strategies for visual storytelling. Students will utilize both traditional and digital media.

***[ART 305L] Digital Illustration***

This course addresses the tools and techniques of producing digital illustrations. Students will learn the use of appropriate software and hardware to create digital and hybrid hand-drawn/digital illustrations.

***[ART 306A] Ceramics Studio***

Assignments, readings and individual contracts are employed encouraging students to seek their own voice and direction in ceramics, preparing them to continue as active individually expressive artists after graduation.

***[ART 306C] Painting: Watercolor***

Watercolor Media Painting, an intermediate course emphasizes on experiencing in the basic techniques of watercolor and also introducing a variety of experimental approaches. Student will work toward a high degree of personal expression and to investigate ideas which occur during the course of study. Slide lecture, demonstration and class discussion is utilized; instruction is based on both structured class and an individual project research assignment. Students may take 303C, 304c, 305c and 306c in any order.

***[ART 306D] Experimental Printmaking Methods***

This course focuses on concepts and applications of printmaking methodologies. The concepts in this semester will explore printmaking substrates, printmaking materials, time-oriented work, public and space considerations with regards to printmaking issues in contemporary art. This course will allow for cross-over between disciplines such as ceramics, sculpture, time-based media, theater and/or video.

***[ART 306E] Concepts in Contemporary Sculpture***

This is studio class that will have lectures that address major issues in contemporary sculpture. Students will explore these issues in their own making practice.

***[ART 306F] Identity in Photography***

This course is dedicated to the continued exploration of the conceptual and practical aspects of both black and white and color photography with an emphasis on self-portraiture as a means of deconstructing concepts of identity.

***[ART 311] Pottery: Principles of Production and Design***

This course is designed for non-art majors interested in exploring the creative process and how the art and craft fields approach creativity, production and problem solving. Students will gain a basic understanding of the fundamental production methods employed in the creation of ceramic pottery as well as foundational design principles and creative decision making processes. MnTC Goal 6.

***[ART 320] Philosophy of the Arts***

Philosophical questions in fine arts. Topics include the nature of art and aesthetic experience and criticism. Same as PHIL 320. MnTC Goal 6.

***[ART 325] Introduction to Art Therapy***

This course will present an introductory experience to the creative process as visual expression using a variety of media and approaches to art therapy. This course will introduce art therapy history, theory, principles and practice. Students will explore the professional field and ethical issues related to art therapy. Cross listed with PSY 325.

***[ART 345] Art of Social & Environmental Justice***

This course explores the role of visual artists in imaging and contributing to a more socially just, inclusive, and environmentally ethical world. It explores the works of artists and communities who utilize visual art to both catalyze tangible change and activate awareness around social, environmental, and animal justice. MnTC Goal 9.

***[ART 350] Elementary Art: Methods and Materials***

Students investigate materials and techniques for creating meaningful expression in the visual arts. Theoretical topics include: developmental stages of children's art making, lesson planning, curriculum development, assessment, organizing museum/gallery experiences for children and integrating art into the elementary curriculum. Practical topics include classroom management strategies, social-emotional learning strategies, working with students with exceptionalities, culturally responsible teaching practices and working with modern day media.

***[ART 360] Professional Practices II***

Seminar focusing on professional writing and oral skills utilized in successful art careers. Introduction to tools for a successful web presence.

***[ART 375] Art Methods 7-12***

Investigation of materials and techniques appropriate for creating meaningful expression in the visual arts for grades 7-12. Application of learning theory for the purpose of providing pre-service teachers with fundamental information regarding sequential UBD curriculum design, planning units of study, classroom management, evaluation/assessment of student learning, museum/gallery art education resources, and addressing state and national standards. This course prepares students for building structurally sound school Art Programs for schools and communities utilizing numerous Art pedagogies including Discipline Based Art Education, Choice Based Art Education, Project-Based Learning and Teaching for 21st Century Skills.

***[ART 390] Topics in Art***

Studio, seminar or discussion of topics not included in other art courses. This is a topical course and may be repeated when the topic changes.

***[ART 400A] Individualized Studies in Ceramics***

Individualized instruction in media not regularly offered in studio concentrations.

***[ART 400C] Individualized Studies in Painting***

Individualized instruction in media not regularly offered in studio concentrations.

***[ART 400E] Individualized Studies in Sculpture***

Individualized instruction in media not regularly offered in studio concentrations.

***[ART 400F] Individualized Studies in Photography***

Individualized instruction in media not regularly offered in studio concentrations.

***[ART 400H] Individualized Studies in Figure Drawing***

Individualized instruction in media not regularly offered in studio concentrations.

***[ART 400I] Individualized Studies***

Individualized instruction in media not regularly offered in studio concentrations.

***[ART 400J] Individualized Studies in Art Education***

Individualized instruction in media not regularly offered in studio concentrations.

***[ART 400L] Individualized Studies in Illustration***

Individualized instruction in media not regularly offered in studio concentrations.

***[ART 402] Advanced Methods: Art Education***

The primary intent and first half of this course focuses on ensuring that students are prepared to enter a classroom or other educational setting armed with the most current, relevant and practical classroom management strategies and teaching methodologies. This course will focus on what it means to be a professional career educator, advocate and leader in the field of art education. Students will learn about professional portfolio preparation, art career exploration and investigate the most current, relevant and effective uses of technology. The second half of the course is to provide opportunities for students to tailor their education to investigate areas of personal interest within art education related fields. Students will be allowed to choose between flexible units of study and experiences. Students have the opportunity to spend 30-60 hours in visual art related service learning practicum settings (30 partner agencies) of their choice or they may choose between a variety of other units of study and research such as Educational Technology, Crafts in the classroom, Arts Advocacy, Public art, Art Therapy, Adaptive Art, or participating in the Student Academic Conference with an art education related research project. This course is required for K-12 licensure for teachers of Art Education and is a part of the MSUM Service Learning initiative.

***[ART 404A] Ceramics Studio***

Individual contracts are employed to allow students to seek their own voice and direction in ceramics, preparing them to continue as active individually expressive artists after graduation. Work produced is frequently connected to the senior exhibition. Students may take Art 404A and 405A in any order.

***[ART 404C] Figure Drawing/Painting Studio***

This is an advanced study (combined painting and drawing media) from life model focusing on figure's anatomy, proportion, color, composition and the surrounding environment. The primary media will be traditional charcoal, watercolor and oil. The subjects of portraiture and figure drawing /painting in both historical and contemporary approaches will be discussed. During the semester, students will develop a portfolio of strong figurative work. May be repeated up to 8 credits.

***[ART 404D] Printmaking Studio***

Students may choose any combination of the printmaking processes (relief, intaglio, lithography, screen-printing, mono-printing), but are asked to specialize in one process for the final semester of 400 level studio. Color processes are emphasized. Personal expression is expected. Students may take Art 404D and 405D in any order.

***[ART 404E] Sculpture Studio***

Emphasis on professional development and individual student investigation of methods, materials, and concepts intended for the development of a personal visual vocabulary resulting in a cohesive body of work. Students must have completed Art 303E, 304E, and 305E prior to enrolling in this class. Students may take Art 404E and 405E in any order.

***[ART 404F] Photography Studio***

Further development of conceptual and formal qualities in selected non-silver process photographic projects, plus color photography and processing. The scope of the work and the media will be determined in contractual arrangement between the student and the instructor. Students are required to have completed Art 304F and 305F prior to enrolling in this class.

***[ART 405A] Ceramics Studio***

Individual contracts are employed to allow students to seek their own voice and direction in ceramics, preparing them to continue as active individually expressive artists after graduation. Work produced is frequently connected to the senior exhibition. Students with a BFA in studio art with an emphasis in Ceramics must take course three times for a total of 12 credits.

***[ART 405C] Painting Studio***

Further development of advanced studio work. Emphasis on production of cohesive body of work, portfolio preparation, professional presentation, and senior exhibition. Students pursuing a BFA in Studio Art with an emphasis in Painting must repeat the course three times for a total of 12 credits.

***[ART 405D] Printmaking Studio***

A continuation of study begun in Art 404D. Students may choose any combination of the printmaking processes (relief, intaglio, lithography, screen-printing, mono-printing), but are asked to specialize in one process for the final semester of 400 level studio. Color processes are emphasized. Personal expression is expected. Students may take Art 404D and 405D in any order.

***[ART 405E] Sculpture Studio***

A continuation of study begun in Art 404E. Emphasis on professional development and individual student investigation of methods, materials, and concepts intended for the development of a personal visual vocabulary resulting in a cohesive body of work. Students pursuing the BFA in Studio Art with an emphasis in Sculpture must take this course three times for a total of 12 credits.

***[ART 405F] Photography Studio***

A continuation of study begun in Art 404F. Further development of conceptual and formal qualities in selected non-silver process photographic projects, plus color photography and processing. The scope of the work and the media will be determined in contractual arrangement between the student and the instructor. Students are required to have completed Art 304F and 305F prior to enrolling in this class.

***[ART 405H] Advanced Studies in Drawing and Illustration***

Development of a cohesive body of drawings or illustrations in preparation for the required BFA exhibition or also for application to the Certificate in Studio Research. Students enrolled in the BFA in Studio Art with an emphasis in Drawing and Illustration must take this course twice for a total of 8 credits.

***[ART 408] Women and Art***

This course examines the history of women artists as well as the representation of women as subjects in art. The course also provides a historical introduction to feminist art history and methodology. Same as WS 408.

***[ART 425] Art History Field Experience***

Art History Field Experience is a focused travel course introducing the visual arts and heritage of a given region or regions. Reading, writing, and oral presentation assignments are combined with on-site explorations of important art collections, cultural monuments as well as visits with professionals in art historical fields.

***[ART 430] Nineteenth Century Art***

History of Nineteenth-Century painting, sculpture, photography and architecture, including Neoclassicism, Romanticism, Realism, Impressionism, and Post-Impressionism.

***[ART 431] Twentieth Century Art***

History of Twentieth-Century avant-garde painting, sculpture, photography and architecture, from Art Nouveau to Pop Art.

***[ART 440] Teaching Apprenticeship***

The Apprentice observes and participates in mentoring activities in an Art Foundations or Introductory Course where the Apprenticeship Mentor is the instructor of the course. The Apprentice will be mentored in the skills utilized in successful course instruction. The Apprentice also provides support in the routine functions of the classroom. May be repeated for up to 2 credits, but may not be repeated in the same semester. Apprentice must have completed at least one 300-level studio course. By permission only.

***[ART 445] Interdisciplinary Critique***

This course will explore critical thinking and discourse in regards to examining works of art. The class will bring together upper-level art students across the different areas of emphasis within the School of Art to engage with each other in the exchange of ideas and practice. Students will gain a broader vocabulary and strengthen their writing/oral persuasive skills to speak of their own and each other's work. The class will examine, cultural, racial and gender biases that inform how we interpret the world around us.

***[ART 450] Contemporary Art, Design, and Theory***

This seminar course is designed as a capstone course for art majors. Emphasis will be placed on major art movements and theoretical concepts from 1945 to the present day. In addition to the listed prerequisites, students must complete one upper-level art history course prior to enrolling in this class.

***[ART 460] Professional Practices III***

Seminar focusing on living a sustainable life as an emerging professional artist. Topics include developing a business plan, working with contracts, and taxes and bookkeeping.

***[ART 467] Art Therapy Related Field Experience***

This field experience is intended for students in Junior or Senior standing who have completed at least 50% of the required Art Therapy Minor credit requirements in both Psychology and Visual Art. Students will select a placement from a list of over 20 agencies and organizations in the Fargo-Moorhead Area that have established partnerships with MSUM. These organizations and agencies range from pre-school to elder ages and include: Health care facilities, mental health agencies, juvenile education centers, elder-care facilities, homeless shelters and programs for at risk-youth. The experience is conducted under the direct leadership of a supervisor who has conveyed the mission, training requirements and parameters of the organization as well as the very specific characteristics, personal perspectives and expressive intent of the clients. Students will spend 40 hours at their site and be responsible for goal setting, reflective writing and submitting a final report.

***[ART 469] Internship***

A one semester self-directed exploration or professional experience with an artist, designer, illustrator, art museum or studio. A maximum of 12 internship credits may be applied to the degree.

***[ART 479] Art History Thesis***

Independent Study in art history for senior thesis. Required for art history emphasis. Students need a minimum of six credits.

***[ART 485] Professional Curatorial Practice***

This is a seminar on curatorial research and practice making use of regional art collections and archives. The final project is a curated exhibition presented in catalog form making use of professional protocols. The theme will rotate each time a course is taught. Travel to appropriate local sites and resources will be necessary.

***[ART 490] Topics in Art***

Studio, seminar or discussion of topics not included in other art courses. Up to four credits may be

applied to the major. This is a topical course and may be repeated when the topic changes.

***[ART 494A] Mentored Research in Ceramics***

Guided research designed to increase the professionalism of the student's creative work in all aspects of artistic production. The course will culminate in the production of a creative portfolio of superior quality. Permission from instructor is required to enroll in this course.

***[ART 494C] Mentored Research in Painting***

Guided research designed to increase the professionalism of the student's creative work in all aspects of artistic production. The course will culminate in the production of a creative portfolio of superior quality. Permission from instructor is required to enroll in this course.

***[ART 494D] Mentored Research in Printmaking***

Guided research designed to increase the professionalism of the student's creative work in all aspects of artistic production. The course will culminate in the production of a creative portfolio of superior quality. Permission from instructor is required to enroll in this course.

***[ART 494E] Mentored Research in Sculpture***

Guided research designed to increase the professionalism of the student's creative work in all aspects of artistic production. The course will culminate in the production of a creative portfolio of superior quality. Permission from instructor is required to enroll in this course.

***[ART 494F] Mentored Research in Photography***

Guided research designed to increase the professionalism of the student's creative work in all aspects of artistic production. The course will culminate in the production of a creative portfolio of superior quality. Permission from instructor is required to enroll in this course.

***[ART 494H] Mentored Research in Drawing***

Guided research designed to increase the professionalism of the student's creative work in all aspects of artistic production. The course will culminate in the production of a creative portfolio of superior quality. Permission from instructor is required to enroll in this course.

***[ART 494L] Mentored Research in Illustration***

Guided research designed to increase the professionalism of the student's creative work in all aspects of artistic production. The course will culminate in the production of a creative portfolio of superior quality. Permission from instructor is required to enroll in this course.

***[ART 497] Independent Study in Art***

Studies selected from art history, theory of ceramics, drawing, graphic design, painting, photography, printmaking, sculpture, and watercolor. May be repeated for up to 12 credits.

***[ART 498] Exhibition***

This course will familiarize students with professional practices involved in the preparation of work for an exhibition, interactions with gallery/museum personnel, and the execution of an exhibition.

## Astronomy

***[AST 100] Introduction to a Universe of Astronomy***

An introduction to astronomy including the nature and evolution of stars and planets as well as the evolution of the universe as a whole. Lab included. MnTC Goal 3L.

***[AST 266] Observational Astronomy***

An introduction to the use of telescopes and CCD imaging techniques in astronomical research. Students are expected to take and analyze image data from the Feder Observatory for a research project as part of the course. MnTC Goal 3L.

***[AST 324] Life and Death in the Universe***

The last century will be remembered in small part as a time when humans finally started scientifically addressing the most fundamental questions about the universe: "How did the Universe begin," "How

did life on Earth begin and how might it end," and "Is there anyone out there?" Students will address these issues by reviewing our current scientific understanding of the Big Bang, the origins of life on Earth, the Evolution of Life, and the possible origins of intelligent life elsewhere. The class will be cross disciplinary with heavy emphasis on astronomy, planetary geology, biology and some history. In addition to in-lecture coursework, lab activities are used to provide students the opportunity to plan, design and execute their own investigations of these scientific concepts. MnTC Goal 3.

***[AST 360] Planetary Science***

A synthesis of current knowledge of the members of the solar system and the origin and evolution of planetary system. Lab included. MnTC Goal 3.

***[AST 365] Cosmology***

Theoretical principles and observational evidence regarding the large-scale structure and evolution of the universe.

***[AST 390] Topics in Astrophysics***

Consideration of special problems or the study of introductory topics at a more advanced level. May be repeated for credit with consent of instructor for no more than three times or six credits.

***[AST 410] Astrophysics***

A review of the modern physical and mathematical modeling of stellar structure and evolution (including nuclear processes and nucleosynthesis), stellar remnants (such as white dwarfs, neutron stars, and black holes), and the interstellar medium and galaxies. In-depth topics will vary depending on the interests of instructor and/or participants.

## Athletic Training

***[AT 210] Medical Terminology***

This on-line course is designed to introduce the student to medical terminology. Students will learn medical terminology so that they can effectively communicate with other members of the health care team. Students will develop a foundation in medical terminology to increase their medical vocabulary.

***[AT 220] Care and Prevention of Injuries & Illnesses***

This course will provide the student with the basic principles of prevention, recognition, immediate care, and treatment of common injuries and illnesses associated with physical activity. The student will also learn basic taping and wrapping techniques.

***[AT 225] Athletic Training Emergency/Immediate Care***

Athletic Training Emergency/Immediate Care teaches the basics of emergency care focused on sports injuries. It is a comprehensive course for the athletic trainer who must initially evaluate and stabilize an athlete in a trauma situation. The course teaches rapid assessment, resuscitation, packaging and transportation of the injured athlete. Students will earn American Red Cross CPR/AED Basic Life Support (BLS) and EMR certifications with successful completion of the course to the American Red Cross standards.

***[AT 321] Orthopedic Clinical Assessment***

This course is an in-depth study of orthopedic clinical assessment techniques involving the musculoskeletal and neurovascular structures. Content includes the application of theoretical concepts with practical experience in assessment.

***[AT 321L] Orthopedic Clinical Assessment: Upper Extremity Lab***

Application and practical experience of theoretical concepts in assessment of the upper extremities. To be taken in concurrently with AT 321.

***[AT 324] Therapeutic Exercise***

A study of therapeutic exercise and conditioning techniques. The basis of injury rehabilitation, the goals and tools of rehabilitation, and rehabilitation techniques for specific injuries will be studied.

***[AT 390] Topics in Athletic Training***

This is an upper division topics course and may be repeated when the topic changes.

***[AT 390L] Topics in Athletic Training Laboratory***

This is an upper division topical laboratory course, and will commonly be offered in conjunction with an AT 390 topical lecture course.

***[AT 397] Independent Study***

Independent reading or research allowing an individual student to explore a specific topic under faculty supervision.

***[AT 490] Topics in Athletic Training***

This is an upper division topics course and may be repeated when the topic changes.

## Athletics

***[ATHL 181A] Varsity Basketball-Men***

Participation in Varsity Basketball during the Fall Semester.

***[ATHL 181B] Varsity Basketball-Men***

Participation in Varsity Basketball during the Spring Semester.

***[ATHL 181C] Varsity Cross-Country and Indoor Track and Field-Men***

Participation in Varsity Cross-Country and/or Indoor Track and Field during the Fall Semester.

***[ATHL 181D] Varsity Indoor and Outdoor Track and Field-Men***

Participation in Varsity Indoor and Outdoor Track during the Spring Semester.

***[ATHL 181E] Varsity Football***

Participation in Varsity Football during the Fall Semester.

***[ATHL 181F] Varsity Football***

Participation in Varsity Football during the Spring Semester.

***[ATHL 181G] Varsity Wrestling***

Participation in Varsity Wrestling during the Fall Semester.

***[ATHL 181H] Varsity Wrestling***

Participation in Varsity Wrestling during the Spring Semester.

***[ATHL 181I] Varsity Basketball-Women***

Participation in Varsity Basketball during the Fall Semester.

***[ATHL 181J] Varsity Basketball-Women***

Participation in Varsity Basketball during the Spring Semester.

***[ATHL 181K] Varsity Cross-Country and Indoor Track and Field-Women***

Participation in Varsity Cross-Country and/or Indoor Track & Field during the Fall Semester.

***[ATHL 181L] Varsity Indoor and Outdoor Track and Field-Women***

Participation in Varsity Indoor and Outdoor Track and Field during the Spring Semester.

***[ATHL 181M] Varsity Golf***

Participation in Varsity Golf during the Fall Semester.

***[ATHL 181N] Varsity Soccer***

Participation in Varsity Soccer during the Fall Semester.

***[ATHL 181O] Varsity Soccer***

Participation in Varsity Soccer during the Spring Semester.

***[ATHL 181P] Varsity Softball***

Participation in Varsity Softball during the Fall Semester.

***[ATHL 181Q] Varsity Softball***

Participation in Varsity Softball during the Spring Semester.

***[ATHL 181R] Varsity Swimming***

Participation in Varsity Swimming during the Fall Semester.

***[ATHL 181S] Varsity Swimming***

Participation in Varsity Swimming during the Spring Semester.

***[ATHL 181T] Varsity Tennis***

Participation in Varsity Tennis during the Spring Semester.

***[ATHL 181U] Varsity Volleyball***

Participation in Varsity Volleyball during the Fall Semester.

***[ATHL 181V] Varsity Volleyball***

Participation in Varsity Volleyball during the Spring Semester.

***[ATHL 181W] Varsity Cheer Team***

Participation in Varsity Cheer Team

***[ATHL 181X] Varsity Dance Team***

Participation in Varsity Dance Team.

***[ATHL 281A] Varsity Basketball-Men***

Second year participation in Varsity Basketball during the Fall Semester.

***[ATHL 281B] Varsity Basketball-Men***

Second year participation in Varsity Basketball during the Spring Semester.

***[ATHL 281C] Varsity Cross-Country and Indoor Track and Field-Men***

Second year participation in Varsity Cross-Country and/or Indoor Track and Field during the Fall Semester.

***[ATHL 281D] Varsity Indoor and Outdoor Track and Field-Men***

Second year participation in Varsity Indoor and Outdoor Track and Field during the Spring Semester.

***[ATHL 281E] Varsity Football***

Second year participation in Varsity Football during the Fall Semester.

***[ATHL 281F] Varsity Football***

Second year participation in Varsity Football during the Spring Semester.

***[ATHL 281G] Varsity Wrestling***

Second year participation in Varsity Wrestling during the Fall Semester.

***[ATHL 281H] Varsity Wrestling***

Second year participation in Varsity Wrestling during the Spring Semester.

***[ATHL 281I] Varsity Basketball-Women***

Second year participation in Varsity Basketball during the Fall Semester.

***[ATHL 281J] Varsity Basketball-Women***

Second year participation in Varsity Basketball during the Spring Semester.

***[ATHL 281K] Varsity Cross-Country and Indoor Track and Field-Women***

Second year participation in Varsity Cross-Country and/or Indoor Track and Field during the Fall Semester.

***[ATHL 281L] Varsity Indoor and Outdoor Track and Field-Women***

Second year participation in Varsity Indoor and Outdoor Track and Field during the Spring Semester.

***[ATHL 281M] Varsity Golf***

Second year participation in Varsity Golf during the Fall Semester.

***[ATHL 281N] Varsity Soccer***

Second year participation in Varsity Soccer during the Fall Semester.

***[ATHL 281O] Varsity Soccer***

Second year participation in Varsity Soccer during the Spring Semester.

***[ATHL 281P] Varsity Softball***

Second year participation in Varsity Softball during the Fall Semester.

***[ATHL 281Q] Varsity Softball***

Second year participation in Varsity Softball during the Spring Semester.

***[ATHL 281R] Varsity Swimming***

Second year participation in Varsity Swimming during the Fall Semester.

***[ATHL 281S] Varsity Swimming***

Second year participation in Varsity Swimming during the Spring Semester.

***[ATHL 281T] Varsity Tennis***

Second year participation in Varsity Tennis during the Spring Semester.

***[ATHL 281U] Varsity Volleyball***

Second year participation in Varsity Volleyball during the Fall Semester.

***[ATHL 281V] Varsity Volleyball***

Second year participation in Varsity Volleyball during the Spring Semester.

***[ATHL 281W] Varsity Cheer Team***

Participation in Varsity Cheer Team

***[ATHL 281X] Varsity Dance Team***

Participation in Varsity Dance Team.

***[ATHL 381A] Varsity Basketball-Men***

Third year participation in Varsity Basketball during the Fall Semester.

***[ATHL 381B] Varsity Basketball-Men***

Third year participation in Varsity Basketball during the Spring Semester.

***[ATHL 381C] Varsity Cross-Country and Indoor Track and Field-Men***

Third year participation in Varsity Cross-Country and/or Indoor Track and Field during the Fall Semester.

***[ATHL 381D] Varsity Indoor and Outdoor Track and Field-Men***

Third year participation in Varsity Indoor and Outdoor Track and Field during the Spring Semester.

***[ATHL 381E] Varsity Football***

Third year participation in Varsity Football during the Fall Semester.

***[ATHL 381F] Varsity Football***

Third year participation in Varsity Football during the Spring Semester.

***[ATHL 381G] Varsity Wrestling***

Third year participation in Varsity Wrestling during the Fall Semester.

***[ATHL 381H] Varsity Wrestling***

Third year participation in Varsity Wrestling during the Spring Semester.

***[ATHL 381I] Varsity Basketball-Women***

Third year participation in Varsity Basketball during the Fall Semester.

***[ATHL 381J] Varsity Basketball-Women***

Third year participation in Varsity Basketball during the Spring Semester.

***[ATHL 381K] Varsity Cross-Country and Indoor Track and Field-Women***

Third year participation in Varsity Cross-Country and/or Indoor Track and Field during the Fall Semester.

***[ATHL 381L] Varsity Indoor and Outdoor Track and Field-Women***

Third year participation in Varsity Indoor and Outdoor Track and Field during the Spring Semester.

***[ATHL 381M] Varsity Golf***

Third year participation in Varsity Golf during the Fall Semester.

***[ATHL 381N] Varsity Soccer***

Third year participation in Varsity Soccer during the Fall Semester.

***[ATHL 381O] Varsity Soccer***

Third year of participation in Varsity Soccer during the Spring Semester.

***[ATHL 381P] Varsity Softball***

Third year participation in Varsity Softball during the Fall Semester.

***[ATHL 381Q] Varsity Softball***

Third year participation in Varsity Softball during the Spring Semester.

***[ATHL 381R] Varsity Swimming***

Third year participation in Varsity Swimming during the Fall Semester.

***[ATHL 381S] Varsity Swimming***

Third year participation in Varsity Swimming during the Spring Semester.

***[ATHL 381T] Varsity Tennis***

Third year participation in Varsity Tennis during the Spring Semester.

***[ATHL 381U] Varsity Volleyball***

Third year participation in Varsity Volleyball during the Fall Semester.

***[ATHL 381V] Varsity Volleyball***

Third year of participation in Varsity Volleyball during the Spring Semester.

***[ATHL 381W] Varsity Cheer Team***

Participation in Varsity Cheer Team

***[ATHL 381X] Varsity Dance Team***

Participation in Varsity Dance Team.

***[ATHL 397] Independent Study in Athletics***

Independent Study in Athletics

***[ATHL 481A] Varsity Basketball-Men***

Fourth year participation in Varsity Basketball during the Fall Semester.

***[ATHL 481B] Varsity Basketball-Men***

Fourth year participation in Varsity Basketball during the Spring Semester.

***[ATHL 481C] Varsity Cross-Country and Indoor Track and Field-Men***

Fourth year participation in Varsity Cross-Country and/or Indoor Track and Field during the Fall Semester.

***[ATHL 481D] Varsity Indoor and Outdoor Track and Field-Men***

Fourth year participation in Varsity Indoor and Outdoor Track and Field during the Spring Semester.

***[ATHL 481E] Varsity Football***

Fourth year participation in Varsity Football during the Fall Semester.

***[ATHL 481F] Varsity Football***

Fourth year participation in Varsity Football during the Spring Semester.

***[ATHL 481G] Varsity Wrestling***

Fourth year participation in Varsity Wrestling during the Fall Semester.

***[ATHL 481H] Varsity Wrestling***

Fourth year participation in Varsity Wrestling during the Spring Semester.

***[ATHL 481I] Varsity Basketball-Women***

Fourth year participation in Varsity Basketball during the Fall Semester.

***[ATHL 481J] Varsity Basketball-Women***

Fourth year participation in Varsity Basketball during the Spring Semester.

***[ATHL 481K] Varsity Cross-Country and Indoor Track and Field-Women***

Fourth year participation in Varsity Cross-Country and/or Indoor Track and Field during the Fall Semester.

***[ATHL 481L] Varsity Indoor and Outdoor Track and Field-Women***

Fourth year participation in Indoor and Outdoor Track and Field during the Spring Semester.

***[ATHL 481M] Varsity Golf***

Fourth year participation in Varsity Golf during the Fall Semester.

***[ATHL 481N] Varsity Soccer***

Fourth year participation in Varsity Soccer during the Fall Semester.

***[ATHL 481O] Varsity Soccer***

Fourth year participation in Varsity Soccer during the Spring Semester.

***[ATHL 481P] Varsity Softball***

Fourth year participation in Varsity Softball during the Fall Semester.

***[ATHL 481Q] Varsity Softball***

Fourth year participation in Varsity Softball during the Spring Semester.

***[ATHL 481R] Varsity Swimming***

Fourth year participation in Varsity Swimming during the Fall Semester.

***[ATHL 481S] Varsity Swimming***

Fourth year participation in Varsity Swimming during the Spring Semester.

***[ATHL 481T] Varsity Tennis***

Fourth year participation in Varsity Tennis during the Spring Semester.

***[ATHL 481U] Varsity Volleyball***

Fourth year participation in Varsity Volleyball during the Fall Semester.

***[ATHL 481V] Varsity Volleyball***

Fourth year of participation in Varsity Volleyball during the Spring Semester.

***[ATHL 481W] Varsity Cheer Team***

Participation in Varsity Cheer Team

***[ATHL 481X] Varsity Dance Team***

Participation in Varsity Dance Team.

## Biochemistry and Biotechnology

***[BCBT 100] The Science of Cooking***

This course will look at cooking from a scientific perspective to understand the food we eat and enjoy. Cooking may be the oldest and most widespread application of science. Students will use principles of biochemistry with some chemistry and biology to analyze food and investigate how cooking works. Students will also do several edible experiments and look at the science behind how it all works. Each week a different food will be

explored. Topics include, but are not limited to, what makes a good experiment, death by chocolate, cheese making, the joys of hot sauce and salsa food biochemistry, the science of spice, and what is taste? This course includes a lab component. Students are expected to conduct three food experiments independent of class time. Learn to be a better cook by understanding food at the molecular level. MnTC Goal 3.

***[BCBT 190] Topics in Biochemistry & Biotechnology***

Exploration of a specific biochemistry/biotechnology topic. This course may be repeated as topic varies.

***[BCBT 220] Survey of BCBT Research and Methodology***

Introduction to research approaches in areas of biochemistry and biotechnology research. Seminar topics include: application of the scientific method in BCBT research fields; breadth and depth of background/training to be successful in research; reading scientific literature; introduction to ethics in research. Seminars will relate to current research by MSUM affiliated faculty that students may work with later in their program.

***[BCBT 290] Topics in Biochemistry & Biotechnology***

Exploration of a specific Biochemistry / Biotechnology topic. This course may be repeated as topic varies.

***[BCBT 360] Team-Based BCBT Research***

Students will participate in a team-based research experience in a principle investigator system in which they will apply advanced research techniques to a current research problem. In addition to research skills, as part of a research team the students will learn research management, team coordination, and conflict resolution skills.

***[BCBT 390] Topics in Biochemistry & Biotechnology***

Exploration of a specific biochemistry/biotechnology topic. This course may be repeated as topic varies.

***[BCBT 394] Research in BCBT***

Faculty-mentored independent research in Biochemistry and Biotechnology. Course may be repeated for credit.

***[BCBT 400] Biochemistry I***

A survey of the chemistry and metabolism of living systems. Topics include buffers and biological buffering, structure, function and chemistry of proteins, carbohydrates, lipids, nucleic acids and enzymes, and introduction to metabolism and metabolic pathways.

***[BCBT 405] Biochemistry Laboratory I***

Representative experiments in the quantitation, isolation and metabolism of naturally occurring substances. Techniques include: assay development, column chromatography, protein and nucleic acid isolation and analysis, protein electrophoresis, and enzymology.

***[BCBT 450] Molecular and Biophysical Chemistry***

Biophysical study of molecular structures, biophysical techniques, and biological mechanisms. Includes the biological functions of cells, tissues and organisms in terms of the structure and behavior of biological molecules and techniques.

***[BCBT 461] Biotechniques: Nucleic Acids & Bioinformatics***

Advanced theory and practice of techniques for working with DNA and RNA for research and applications. Development of modern bioinformatics skills and applications to genomic research.

***[BCBT 463] Genomics, Proteomics, and Beyond***

An introduction to the science and practice of omics disciplines including genomics, transcriptomics, proteomics, and metabolomics. Students will learn the theory, development, and practice of omics technologies as a key component

of systems biology. Students will explore how omics data can be integrated and applied to gain insight into a wide variety of biochemical and biotechnological research problems, such as personalized medicine and agricultural sustainability. Advanced techniques practiced in lab may include long and short read DNA sequencing, RNAseq, 2D electrophoresis, liquid chromatography, quantitative and tandem mass spectrometry, and bioinformatics. This is a lab/lecture course where students will study background and theory and practice some of these techniques in the lab.

***[BCBT 464] Cell Culture, Histology, and Immunochemistry***

This course will provide students with a suite of techniques to study and manipulate mouse tissues and eukaryotic cells in a laboratory setting. The course will include histological procedures, which are used in diagnostic labs for diagnosing diseases, such as cancer. Students will also process the tissues to culture eukaryotic cells. Cell culture is a core laboratory technique in many molecular biology, immunology, neurobiology and developmental biology laboratories. It is one of the fundamental techniques performed prior to molecular analysis, or for bio manufacturing of therapeutic proteins. Finally, students will be investigating protein expression in cells and/or tissues using immunochemistry principles. This course is designed to provide students with the necessary technical and scientific skills required in the biotechnology industry or graduate school.

***[BCBT 469] Internship***

This course is the required capstone experience for the Biochemistry and Biotechnology Certificate Program. An internship or work experience is required to complete the Biochemistry and Biotechnology Certificate. The experience can be a paid or volunteer experience. The experience needs to be approved by a faculty advisor in the Biochemistry and Biotechnology Certificate Program. Following the internship or work experience the student will be required to write a paper pertaining to the experience. Student must be in junior standing in a bioscience or chemistry major.

***[BCBT 490] Topics in Biochemistry & Biotechnology***

This course will cover a variety of topics or laboratory techniques that may include advanced recombinant DNA and RNA, a short course on cell culturing, surgical techniques, advanced microscopy or other Biochemistry & Biotechniques related subjects. This course will be a combination of two or more topics depending on demand.

***[BCBT 494] Senior Research Thesis***

Research studies in all areas of biochemistry and biotechnology. A comprehensive research report is required. BCBT 494 should be taken only once.

## Biology

***[BIOL 100] Issues in Human Biology***

Human biology is a wide field that includes human physiology, genetics, medical studies and how humans impact the environment. We are bombarded with information about everything from green tea to intelligent design. Our students will be the scientific resources for their families and peer groups; they need to know how to wade through non-science to get to the facts. This course uses data and "news" to teach students how to properly sift through all this material and logically draw conclusions based on fact. MnTC Goal 2.

***[BIOL 104] Human Biology***

Biological basis of human structures and functions with references to genetics, development, nutrition and disease. For non-science majors. MnTC Goal 3.

***[BIOL 109] Biology Today***

This course offers an issues-oriented approach to the learning of biology. This course is designed to encourage critical evaluation of biological information providing students with a biological literacy that will enable them to make appropriate decisions affecting their own lives and the well-being of society. Course should be taken

concurrently with Biol 109. For non-science majors; majors or minors in Biology should take Biol 111. MnTC Goal 3.

***[BIOL 109L] Biology Today Lab***

Twelve hours of laboratory experience will provide an understanding of the scientific method, the relationship between hypotheses and theories, data collection, analysis, and communication of results. Course should be taken concurrently with Biol 109. MnTC Goal 3.

***[BIOL 111] Cell Biology***

Fundamental concepts of the structure, function and reproduction of cells. Lab included. MnTC Goal 3L.

***[BIOL 111L] Cell Biology Lab***

Lab that accompanies Biol 111

***[BIOL 115] Organismal Biology***

This course is designed for biology majors. The course will address biological diversity, primarily in plants and animals. Organismal diversity will be presented within an evolutionary context. Relationships between form and function as well as relationships of organisms to their environments will be addressed. Lab included. MnTC Goal 3L.

***[BIOL 115L] Organismal Biology Laboratory***

Lab that accompanies Biol 115.

***[BIOL 125] Human Anatomy and Physiology I with Lab***

This is the first course in a two-course sequence of introductory lecture and laboratory human anatomy and physiology. The course examines the fundamental concepts of human structure and function including cells and tissues; integumentary, skeletal, articulations, muscular, nervous and endocrine systems; and sense organs. Intended for nursing students and not as a substitute for BIOL 323 and BIOL 349 required for the BS Biology degree. MnTC Goal 3.

***[BIOL 126] Human Anatomy and Physiology II with Lab***

This is the second course in a two-course sequence of introductory lecture and laboratory human anatomy and physiology. The course examines the fundamental concepts of human structure and function including cardiovascular function, lymphatic system, nonspecific defense and immunity, respiratory system, digestive system, urinary system, fluid/electrolyte and pH balance, and reproductive system. Intended for nursing students and not as a substitute for BIOL 323 and BIOL 349 required for the major in Biology: Health and Medical Sciences. MnTC Goal 3

***[BIOL 130] Oceanarium I***

Students gain first-hand experience working in the MSUM Oceanarium located in the basement of the Langseth Building. Multi-semester courses are encouraged to acquire greater mastery of these skills, opportunities for student-student mentorship and development of leadership potential. This course is the first in a series of three courses, taught concurrently, that allow students to incrementally acquire skills in preparing food and feeding animals, maintaining holding facilities (BIOL 130 Aquarist level I), service filters and pumps, help lead tours (BIOL 230 Aquarist level II), and make sea water, water changes, monitor water quality, and help develop and deliver new curricula and displays, lead tour guides and act as ambassadors for the Oceanarium (BIOL 330 Aquarist level III). This course connects human activities to the conservation of marine ecosystems, and the role of the oceanarium facility in educating the general public about this connection. Level III Aquarist (BIOL 330) is required for completion of the Marine Aquarist Certificate.

***[BIOL 190] Topics in Biology***

This is a topical course and may be repeated when the topic changes.

***[BIOL 230] Oceanarium II***

Students gain first-hand experience working in the MSUM Oceanarium located in the basement of the

Langseth Building. Multi-semester courses are encouraged to acquire greater mastery of these skills, opportunities for student-student mentorship and development of leadership potential. This course is the second in a series of three courses, taught concurrently, that allow students to incrementally acquire skills in preparing food and feeding animals, maintaining holding facilities (BIOL 130 Aquarist level I), service filters and pumps, help lead tours (BIOL 230 Aquarist level II), and make sea water, water changes, monitor water quality, and help develop and deliver new curricula and displays, lead tour guides and act as ambassadors for the Oceanarium (BIOL 330 Aquarist level III). This course connects human activities to the conservation of marine ecosystems, and the role of the oceanarium facility in educating the general public about this connection. Level III Aquarist (BIOL 330) is required for completion of the Marine Aquarist Certificate.

***[BIOL 236] Foundations of Microbiology with Lab***

Focuses on bacteria, viruses and other microbes and their influence on humans, especially on activities related to human health. Addresses the nature of scientific inquiry, along with key microbiology concepts. Lab is required. Basic laboratory skills include bacterial cultivation, aseptic technique, microscopy, bacterial quantitation. Intended for students in nursing. Not intended for students majoring in the biological health and medical sciences. MnTC Goal 3.

***[BIOL 248] Introduction to Public Health***

This course will introduce students to the broad and multidisciplinary field of public health. Students from any major, will be introduced to the current, local and global issues in public health, and will be provided necessary background to understand the importance of scientific evidence and collaborative approach towards addressing these issues. MnTC Goal 8.

***[BIOL 275] Biostatistics***

The application of mathematics and statistics to biology that includes lab which will emphasize computer applications.

***[BIOL 290] Topics in Biology***

This is a topical course and may be repeated when the topic changes.

***[BIOL 300] Biology of Women***

A study of the gender-related aspects of the biology and behavior of women, including a critical examination of research in this field. Appropriate as an elective only for Biology majors who choose the Health and Medical Science emphasis or the Life Science Emphasis. Lab included. MnTC Goal 3.

***[BIOL 305] General Botany***

This course is designed for the biology major and is a comprehensive introduction to the plant kingdom including the following topics: life-history, reproduction, structure, and physiology. A laboratory is included and involves self-paced microscopic and macroscopic analysis of living and preserved specimens.

***[BIOL 305L] General Botany Lab***

Lab that accompanies Biol 305

***[BIOL 308] Pacific Northwest Ecology***

This three credit summer travel course allows students to study general ecological principles and regional natural history within the context of a variety of ecosystems in the Pacific Northwest, including coastal, alpine, freshwater stream, lake, and river, and temperate rainforest systems. The ecological consequences and the science behind specific environmental and conservation issues are explored. The concept of local and global sustainability is a pervasive theme throughout the course. Prerequisite: One college-level science course. MnTC Goal 10.

***[BIOL 310] Science of Brewing***

This course will cover scientific and historical background into the scientific processes involved in brewing and fermentation science. Key scientific techniques and best practices will be covered in both lecture and lab. MnTC Goal 3.

***[BIOL 311] Neurobiology***

This course is a survey of the biological principles that underlie the function of the nervous system. Lab is required.

***[BIOL 321] Invertebrate Zoology***

This course is a survey of major invertebrate taxa, with emphasis on insects and marine taxa. Course content includes identification of major groups and their ecology. Some emphasis will be placed on important parasites and agricultural pests. Each student will be responsible for creating a labeled collection of invertebrates.

***[BIOL 321L] Invertebrate Zoology Lab***

Lab that accompanies Biol 321

***[BIOL 322] Vertebrate Zoology***

This course is a survey of major vertebrate taxa, with emphasis on the evolutionary relationships among these groups and the interaction between anatomical structure and ecology.

***[BIOL 322L] Vertebrate Zoology Lab***

Lab that accompanies Biol 322.

***[BIOL 323] Human Anatomy***

Anatomical structure of the human body, from individual organ systems to the integrated whole. Includes cadaver dissection.

***[BIOL 323L] Human Anatomy Lab***

Lab that accompanies Biol 323

***[BIOL 326] Minnesota Plant Identification***

Identification of plants in Minnesota, including trees, shrubs, forbs, grasses, sedges, and ferns. Sight identification, keying skills, and proper nomenclature will be emphasized. Will include lecture and lab with much independent study in lab.

***[BIOL 326L] Minnesota Plant Identification Lab***

Lab that accompanies Biol 326

***[BIOL 330] Oceanarium III***

Students gain first-hand experience working in the MSUM Oceanarium located in the basement of the Langseth Building. Multi-semester courses are encouraged to acquire greater mastery of these skills, opportunities for student-student mentorship and development of leadership potential. This course is the third in a series of three courses, taught concurrently, that allow students to incrementally acquire skills in preparing food and feeding animals, maintaining holding facilities (BIOL 130 Aquarist level I), service filters and pumps, help lead tours (BIOL 230 Aquarist level II), and make sea water, water changes, monitor water quality, and help develop and deliver new curricula and displays, lead tour guides and act as ambassadors for the Oceanarium (BIOL 330 Aquarist level III). This course connects human activities to the conservation of marine ecosystems, and the role of the oceanarium facility in educating the general public about this connection. Level III Aquarist (BIOL 330) is required for completion of the Marine Aquarist Certificate.

***[BIOL 335] Tropical Conservation Biology***

There is one lecture per week during the spring semester to discuss definitions of biodiversity, and general principles of biological conservation. We discuss why diversity is so high in tropical regions, the value of biodiversity in terms of ecological services and economic potential. We then consider Costa Rica as a case study where these principles have been implemented so successfully. The "lab" component of this course is a mandatory, 12-day class trip to Costa Rica over spring break. In Costa Rica, students and faculty spend 2 days in a dry forest research station at Santa Rosa National Park to study the role of research in bioconservation, 4 days at an ecolodge in a humid forest in the "absolute" reserve at Cabo Blanco on the Pacific Ocean to study the impact of excluding people for more than 50 years, and another 4 days in cloud forest near Monteverde Reserve to study ecotourism as an effective but imperfect tool for conservation. A special fee is required to cover the costs of travel, food, and accommodations. MnTC Goal 10.

***[BIOL 341] Genetics***

A survey of the modern molecular and classical Mendelian principles underlying biological inheritance. With lab.

***[BIOL 341L] Genetics Lab***

Lab that accompanies Biol 341

***[BIOL 345] Principles of Ecology***

The structure and function of ecological systems. With lab and field work that will emphasize local species and ecosystems.

***[BIOL 345L] Ecology Lab***

Lab that accompanies Biol 345

***[BIOL 346] An Ecological Perspective***

This course seeks to help students understand basic ecological principles, and to use these principles to understand our current environmental problems. An integration of scientific, economic, political and ethical considerations will help students to appreciate the policies and practices necessary to achieving a sustainable future. MnTC Goal 10.

***[BIOL 347] Plant Physiology***

Structure and function of higher plants with emphasis on molecular and cellular physiology as related to whole plant functions. Topics include growth and development, photosynthesis, and environmental aspects of plant physiology.

***[BIOL 347L] Plant Physiology Lab***

Lab that accompanies Biol 347

***[BIOL 348] Evolutionary Biology***

Concepts, principles and evidence of evolutionary processes in biological systems.

***[BIOL 349] Human Physiology***

The study of human physiology from cellular homeostasis through organ systems. Includes the study of normal function, regulation, and integration of organ systems, and the implications of abnormal function.

***[BIOL 349L] Human Physiology Lab***

Lab that accompanies Biol 349

***[BIOL 350] Microbiology***

Covers concepts of basic and applied microbiology, emphasizing bacteriology and introducing virology and immunology. Laboratory covers basic microbiological techniques, identification of unknowns as well as a group research project. With lab.

***[BIOL 350L] Microbiology Lab***

Lab that accompanies Biol 350

***[BIOL 360] Cellular and Molecular Physiology***

This course involves the biological, biochemical, and molecular study of homeostasis at the cellular level. Key concepts include protein function, membrane function, signal transduction, electrical conduction, and cellular and intracellular movements.

***[BIOL 360L] Cellular and Molecular Physiology Lab***

Lab component of Cellular and Molecular Physiology.

***[BIOL 365] Developmental Biology***

A study of the mechanisms of development in a variety of biological systems, with analyses of changes from conception through aging. With lab.

***[BIOL 365L] Developmental Biology Lab***

Lab to accompany Biol 365 sections.

***[BIOL 370] Exploring Biology***

This course includes principles of biology with an emphasis on human biology, basic concepts in ecology, and the impact of specific environmental problems. The course includes two lab hours integrated into the bi-weekly meeting times. MnTC Goal 10.

***[BIOL 372] Aquatic Biology***

A general overview of aquatic ecosystems. This course includes basic physical and chemical properties of water (limnology), evolution and ecology of fishes (ichthyology), and resource conservation and management. With lab.

***[BIOL 385] Molecular Biology***

Molecular biology of the gene with emphasis on gene structure and expression in eukaryotes. Topics include current techniques used to study genomes, genes and regulation of gene expression.

***[BIOL 385L] Molecular Biology Lab***

This course is required for students in the Biology/Chemistry double major with an emphasis in Biochemistry and Biotechnology. The course may be used as an elective by students in other biology programs.

***[BIOL 389] Learning Assistant Program Seminar***

This seminar is designed for students who are either currently serving as a Learning Assistant (LA) or are planning on applying to become an LA in the future. Seminar topics provide pedagogical help for LAs to enable them to support and facilitate active learning by the students in their assignments.

***[BIOL 390] Topics in Biology***

This is a topical course and may be repeated when the topic changes.

***[BIOL 400] Biochemistry I***

A survey of the chemistry and metabolism of living systems. Topics include buffers and biological buffering, structure, function and chemistry of proteins, carbohydrates, lipids, nucleic acids and enzymes, and introduction to metabolism and metabolic pathways.

***[BIOL 402] Principles of Animal Behavior***

The genetic, ecological, evolutionary and physiological aspects of animal behavior including the historical background, kin selection, communication, aggression, navigation, and reproductive behavior. With lab.

***[BIOL 405] Biochemistry Laboratory I***

Representative experiments in the quantitation, isolation and metabolism of naturally occurring substances. Techniques include: assay development, column chromatography, protein and nucleic acid isolation and analysis, protein electrophoresis, and enzymology.

***[BIOL 406] DNA as Destiny: Genetics and Society***

This course examines the various ethical, legal and social implications (ELSI) of genetic research and the applications of current and future applications of new genetic technologies. It is designed to provide students in any major, with the necessary background to make informed decisions about these issues in a socially and civically responsible manner. MnTC Goal 9.

***[BIOL 410] Biochemistry II***

A survey of the chemistry and metabolism of living systems and nucleic acids biochemistry. Topics include study of catabolic and biosynthetic biochemical pathways and their regulation, chemical messengers and signal transduction, integration of metabolic pathways and nucleic acids biochemistry and other advanced biochemistry topics.

***[BIOL 423] Advanced Gross Anatomy***

Advanced Gross Anatomy will focus on several modules studying the anatomical differences between females and males in response to sex hormones. Emphases is on clinical applications that arise due to anatomical differences between the sexes.

***[BIOL 423L] Advanced Gross Anatomy Lab***

This is a zero credit lab that accompanies BIOL 423.

***[BIOL 430] Immunobiology***

Covers the components and functioning of the immune system: emphasizes the immune system at the organismal level as well as the cellular and molecular levels. Listed prerequisites may be waived by consent of instructor.

***[BIOL 430L] Immunobiology Laboratory***

The goal of this laboratory is to provide students with a hands-on experience in Immunobiology. The lab will introduce students to research models and techniques, which are required to gain a comprehensive understanding of the immune system. Knowledge of immune system is central to our understanding of health and disease. Additionally, Immunology based techniques are of significant importance in many other disciplines such as molecular biology, neurobiology, developmental biology and biochemistry, and are directly applicable to design of therapeutics and diagnostics.

***[BIOL 438] Medical Microbiology***

A survey of the major bacterial and viral infectious disease agents and their associated diseases in humans.

***[BIOL 440] Middle School/Secondary Science Teaching Methods***

Materials and methods appropriate for middle/junior and senior high school science classes and laboratories. Same as CHEM 440 and PHYS 440.

***[BIOL 455] Wildlife Ecology***

The application of ecological principles to the management of wildlife populations. Population dynamics and field techniques are stressed. With lab and field work.

***[BIOL 469] Internship***

A supervised work experience generally involving research in a governmental agency or the private sector. A maximum of 12 internship credits may be applied to the degree.

***[BIOL 470] Undergraduate Laboratory Teaching***

Students will serve as undergraduate laboratory teaching assistants in selected biology classes under the supervision of a faculty mentor. May be repeated for credit.

***[BIOL 478] Research Design***

Students will identify a problem, complete a literature review of that topic, and design an experiment in any area of the biological sciences. This will include developing a question, conducting a literature search using current databases and techniques, develop an appropriate bibliography, examine ethical issues in research, understand plagiarism, and learn how to effectively communicate their research design through writing and presenting a research proposal.

***[BIOL 490] Topics in Biology***

This is a topical course and may be repeated when the topic changes.

***[BIOL 494] Undergraduate Research in Biology***

Individual research; project and its format must be accepted by the research advisor prior to registration. May be repeated for credit.

## Business

***[BUS 101] Introduction to Business***

This course is designed to introduce students to the academic disciplines offered in the School of Business by requiring short essays, utilizing research, and providing guest speakers in accounting, finance, marketing, management, and international business. Speakers will provide advice on how students can get the most out of their college years and what the business world expects of new hires. Students will also learn how to develop a degree plan that will help track their progression through their years at MSUM.

***[BUS 145] Introduction to International Business***

The purpose of this course is to provide an introduction to the area of international business. The aim is to sensitize students to the complexities of managing an organization in the changing international environment. The instructor will focus on the diversity of international cultures and economies. Additionally, the course will focus on the unique international dimensions of organizational concerns such as leading,

organizational culture, planning, and staffing in the international business environment.

***[BUS 245] Seminar on Doing Business in China***

This course will provide the conceptual framework for doing business in China. The course provides an overview of doing business in China, including an introduction to the Chinese economy, history and culture. China's economic growth phenomenon over the past three decades and the uniqueness of the Chinese market, organizations, and social structure will be examined in terms of the challenges and opportunities they bring to a foreign firm doing business in China.

***[BUS 345] China Business Trip***

Students in this class will travel to China for a first-hand experience of Chinese culture, business environment, financial system and the challenges and opportunities each of these bring to conducting foreign business in mainland China.

***[BUS 346] Doing Business in Europe***

Students in this course will travel to one or several selected European countries for a first-hand experience of the local culture, business environment, financial system and the challenges and opportunities each of these bring to conducting business with the country/ies. The course consists of 6-8 in-class sessions and a multi-week trip to the selected European country/ies. During the trip, students will visit a variety of businesses and financial and government institutions, as well as historic and cultural sites. The course is intended to be an experiential learning and fully immersive experience to the local business and cultural environment. Course may be repeated twice for credit.

***[BUS 390] Topics in Business Administration***

This is a junior level topics course and may be repeated as topic varies.

***[BUS 401] Executive Mentorship***

Students will be assigned an executive mentor based on their completion of a personal profile. Students will meet with their mentor for 2-4 hours per month to explore their own career choices in light of the mentor's experiences and insights. Students are responsible for contacting their mentor. Students are expected to attend and contribute to brown bag lunches and social gatherings where both mentors and students are present. Students will have the opportunity and responsibility to represent themselves and MSUM professionally and courteously. Students will attend scheduled class sessions, participating actively in conversation, completing homework, and sharing insight and feedback from their interactions with their mentors. Students will prepare a minimum of three 10-point reflection papers and a final 30-point summary paper based on their course/mentorship experiences. This course may be taken up to two times.

***[BUS 469] Internship***

Internship in Business

***[BUS 480] Dragon Consulting***

Students will work on project teams to apply their academic knowledge to real life business problems in real time. Through the Center for Innovative Business Solutions (CIBS) students will provide consulting services for clients and real-world experience for themselves. Businesses that have identified a project and work with student teams to find solutions and recommendations the business can implement. Students will have the opportunity and responsibility to represent themselves and MSUM professionally and courteously. Students will attend scheduled class sessions students to think critically about business issues and to be creative problem solvers as they navigate challenging projects.

***[BUS 490] Topics in Business Administration***

This is a senior level topics course and may be repeated as topic varies.

***[BUS 497] Independent Study in Business***

Independent reading or research allowing an individual student to explore a specific business topic under faculty supervision.

## Chemistry

***[CHEM 102] Environmental Chemistry***

A study of the fundamental applications of chemistry to environmental problems in the context of the social, political, economic, and ethical issues surrounding those problems. Students will formulate and test hypotheses by performing experiments and simulations in class and at home. They will communicate their findings and interpretations both orally and in writing. Suitable for those who have had no high school chemistry. Credit not applicable to a chemistry major or minor. MnTC Goal 3.

***[CHEM 105] Crime Scene Science***

Students will study basic chemical and science principles in the context of crime scene investigations. Analysis of forensic data will accompany the content, which will provide an understanding of the scientific method, the relationship between hypotheses and theories, data collection and analysis. Students will also examine the ethical considerations of forensic evidence and how it is presented and interpreted in a court of law. Credit not applicable to a chemistry major or minor. MnTC Goal 3 and 9.

***[CHEM 110] Fundamentals of Chemistry***

Students will study fundamentals of chemistry with laboratory applications. Topics include measurements, matter, energy, atomic theory, bonding, molecular structure, nomenclature, balancing equations, stoichiometry, solutions, acids and bases, gases, and basic organic chemistry. Upon completion, students should be able to understand and apply basic chemical concepts and demonstrate basic laboratory skills necessary for success in college-level science courses. MnTC Goal 3.

***[CHEM 110L] Fundamentals of Chemistry Lab***

Lab component of Chem 110 Fundamentals of Chemistry.

***[CHEM 150] General Chemistry I***

General chemistry principles: atomic structure, stoichiometry, solutions, bonding, periodic properties of the elements, thermochemistry, and properties of solids, liquids and gases. Should register for Chem 150L (lab) to be taken concurrently. Must have completed an acceptable placement score, a minimum ACT mathematics score, or successful completion of math equivalent to or higher than Math 099, intermediate algebra, in the algebra sequence.

***[CHEM 150C] General Chemistry I Supplement***

This course will provide extra math and scientific reasoning support for students enrolled in CHEM 150 (General Chemistry I). Required for students not meeting the math prerequisite for CHEM 150, and recommended for students scoring below the cutoff on the CHEM 150 pretest.

***[CHEM 150L] General Chemistry Laboratory I***

Laboratory techniques of general chemistry including qualitative and quantitative analysis. Course should be taken concurrently with Chem 150. Safety exam must be passed to remain in Chem 150L or subsequent lab courses.

***[CHEM 190] Topics in Chemistry***

This is a topical course and may be repeated when the topic changes.

***[CHEM 210] General Chemistry II***

General chemistry principles: kinetics, chemical equilibrium, acid-base chemistry, solubility equilibrium, thermodynamics, oxidation-reduction, electrochemistry, coordination chemistry, and nuclear chemistry. Should register for Chem 210L to be taken concurrently. Chem 210 and 210L are both required to satisfy LASC 3 requirements. MnTC Goal 3.

***[CHEM 210L] General Chemistry II Lab***

This laboratory accompanies Chem 210 General Chemistry II. MnTC Goal 3.

***[CHEM 275] General Chemistry Research-based Lab***

An investigative-based General Chemistry laboratory course in which students will partner with Howard Hughes Medical Institute to discover bacteria-infecting viruses in an attempt to find new cures for diseases and antibiotic resistance. Students will work in the lab in a research group setting to discover, isolate and purify new bacteriophages from the environment, characterize the chemical environment in which they are found, obtain microscopic images of the phages, and isolate the phage DNA. Focus will be on experimental design, documentation, data interpretation, and laboratory safety.

***[CHEM 290] Topics in Chemistry***

This is a topical course and may be repeated when the topic changes.

***[CHEM 294] Introduction to Research***

Introduction to Research will present an overview of the research being conducted in the department and introduce students to some broader topics in chemical research. Students will also gain experience with searching and reading the chemical literature, review safety considerations in the research lab, and discuss instrumentation available in the department.

***[CHEM 300] Inorganic Chemistry I***

Aspects of bond theory, periodicity, acid-base chemistry, redox chemistry, reaction kinetics, energetics and chemistry of the elements.

***[CHEM 304] The Environment and You***

This course explores the chemical underpinnings of a variety of environmental issues, such as pollution, energy production, and recycling, and how these issues play out in social, political, and economic arenas. Students will also have the opportunity to independently explore topics in further detail in their papers. Credit not applicable to a chemistry minor. MnTC Goal 3, 10, WI.

***[CHEM 350] Organic Chemistry I***

Introduction to the classification, structure, reactions, and reaction mechanisms of carbon compounds.

***[CHEM 355] Organic Chemistry I Lab***

Techniques for the purification, synthesis, and characterization of organic compounds and the study of organic reactions.

***[CHEM 360] Organic Chemistry II***

The structure, nomenclature, reactions, reaction mechanisms, and synthesis of carbon compounds that contain oxygen and nitrogen.

***[CHEM 365] Organic Chemistry II Lab***

Purification, synthesis, and identification of organic compounds, and the study of organic reactions.

***[CHEM 375] Team-based Chemistry Research***

Students will participate in a team-based research experience and will apply advanced research techniques to a current research problem in the field of chemistry. In addition to research skills, as part of a research team, the students will learn research management, team coordination, and conflict resolution skills. This writing-intensive course will also extend the learning outcomes of the foundation writing course through the preparation of a research proposal, progress reports and a final report.

***[CHEM 380] Analytical Chemistry I with Lab***

Analytical applications of chemical equilibrium. Error analysis, chromatography, IR spectroscopy, UV spectroscopy, fluorescence and phosphorescence spectroscopic techniques in chemical analysis. Lab included.

***[CHEM 390] Topics in Chemistry***

This is a topical course and may be repeated when the topic changes.

***[CHEM 394] Undergraduate Research***

Research studies in all areas of chemistry. A research paper and/or oral presentation are required. May be repeated.

***[CHEM 400] Biochemistry I***

A survey of the chemistry and metabolism of living systems. Topics include buffers and biological buffering, structure, function and chemistry of proteins, carbohydrates, lipids, nucleic acids and enzymes, and introduction to metabolism and metabolic pathways.

***[CHEM 405] Biochemistry Laboratory I***

Representative experiments in the quantitation, isolation and metabolism of naturally occurring substances. Techniques include: assay development, column chromatography, protein and nucleic acid isolation and analysis, protein electrophoresis, and enzymology.

***[CHEM 410] Biochemistry II***

A survey of the chemistry and metabolism of living systems and nucleic acids biochemistry. Topics include study of catabolic and biosynthetic biochemical pathways and their regulation, chemical messengers and signal transduction, integration of metabolic pathways and nucleic acids biochemistry and other advanced biochemistry topics.

***[CHEM 420] Inorganic Chemistry II***

Transition metal chemistry, valence bond, molecular orbital, crystal field, and ligand field theory, molecular symmetry. Bio-inorganic models.

***[CHEM 440] Middle School/Secondary Science Teaching Methods***

Materials and methods appropriate for junior and senior high school classes and laboratories. Must be taken prior to student teaching. Same as BIOL 440 and PHYS 440.

***[CHEM 449] Topics in Inorganic Chemistry***

Selected topics such as coordination chemistry, bonding, acid-base and nonaqueous solvent theory, organometallic chemistry and inorganic biochemistry. May be repeated when topic is changed.

***[CHEM 450] Physical Chemistry: Thermodynamics***

Application of physics and mathematics to chemical phenomena, focusing on chemical thermodynamics and equilibrium.

***[CHEM 460] Physical Chemistry: Quantum Chemistry and Kinetics***

Application of physics and mathematics to chemical phenomena, focusing on quantum chemistry, spectroscopy, and kinetics.

***[CHEM 465] Physical Chemistry Laboratory***

Experiments in spectroscopy, computational chemistry, kinetics, and thermodynamics, including analysis of data. CHEM 450 is the co-requisite to this course and should be taken concurrently.

***[CHEM 469] Internship***

A supervised, practical experience in chemistry. A maximum of 12 internship credits may be applied to the degree.

***[CHEM 480] Analytical Chemistry II***

Instrumental analysis involving chromatography, spectroscopy and electrochemical techniques. QA/QC addressed. (3 lecture credits)

***[CHEM 490] Topics in Chemistry***

This is a topical course and may be repeated when the topic changes.

***[CHEM 494] Senior Thesis***

Research studies in all areas of chemistry. A comprehensive research report is required. Chem 494 should be taken only once.

## Communication & Journalism

***[COMM 100] Speech Communication***

The theory and practice of oral communication in public and interpersonal situations, stressing both content and delivery. MnTC Goal 1.

***[COMM 101] Introduction to Mass Media***

The study of the power and importance of mass media in national and international affairs with emphasis on the nature, functions and influence of broadcast media, print media, emerging mediums, advertising and public relations in the digital age. MnTC Goal 9.

***[COMM 110] Introduction to Communication Studies***

This course provides an overview of many of the contexts, concepts, and areas of research in the field of Communication Studies. This course will provide students with opportunities to explore and apply various communication competencies. MnTC Goal 5.

***[COMM 111] Argumentation and Debate***

This course introduces students to argumentation theory and provides the opportunity to practice skills in reasoning, argumentation, and critical thinking. The course focuses on multicultural arguments as they appear in politics, society, and the media. MnTC Goal 2.

***[COMM 201] Interpersonal Communication***

This course is designed to explore various communication theories, based on the development of self and the development and maintenance of relationships with others.

***[COMM 210] Media Writing***

Media Writing is designed to achieve the following outcomes: proficiency in the use of the parts of speech, proficiency in the use of Associated Press style relative to capitalization, abbreviations, use of numerals and punctuation, and proficiency in composition of media messages designed for print and broadcast journalism, public relations and advertising.

***[COMM 211] Group and Team Communication***

Presents theories of group and team communication, group dynamics, communication patterns, and role norms. Class designed around two fundamental components: experiential and cognitive. A substantive group research and problem-solving assignment is included.

***[COMM 220] Layout & Typography I***

The course is designed to develop proficiency in terminology, design principles, use of software, critical analysis, and the publication ready production of projects in layout and typography.

***[COMM 230] Photography***

The student will experience an introduction to the compositional and conceptual aspects of photography and an exploration of sequencing photographs. Options exist for both digital and film-based photography. Cameras can be rented from the department.

***[COMM 251] Video Production for Ad, News and PR***

The course is designed to develop proficiency in the terminology, pre-production planning, use of software and hardware, critical analysis, and production of video projects for advertising, news, and public relations.

***[COMM 283] Advertising and Public Relations Principles***

The course is designed to achieve the following learning outcomes: acquire an understanding of advertising and public relations theories and principles, how advertising and public relations are used, why they are used and how it impacts the American society and economy; acquire an understanding of the advertising and public relations industries that includes the function and operation of advertising and public relations agencies and the components of an advertising and public relations campaigns.

***[COMM 285] Intercultural Communication***

Examines selected major theories of intercultural communication and applies them in analyzing,

understanding and comparing the communication practices of different cultures and sub-cultures. Focuses upon how culture and society affect the specific rhetorical communication tactics and processes as well as non-verbal communication practices. MnTC Goal 7

***[COMM 290] Topics in Communication***

Study of a particular mass communications topic: exploration of emerging issues, methodologies, and new technologies related to the study or application of mass communications theory not addressed in other courses. May be repeated when topic varies.

***[COMM 295] Practicum***

Practical experience in a performance activity in Communication.

***[COMM 301] Business and Professional Communication***

Focuses on the application and practice of both oral and written communication skills for a variety of business and professional situations including job interviews, team and group interactions, and public presentations. This course also provides opportunities for students to explore issues of diversity and technology as related to professional communication.

***[COMM 305] Imaging & Photo Illustration***

Students will gain technical and conceptual skills in the manipulation of digital images for the fields of advertising and public relations. Projects involve acquiring images and producing creative manipulations that can be used for a variety of clients.

***[COMM 306] Advertising and Public Relations Copywriting***

A course for students in advertising and public relations that includes experiences in the process of writing, editing and adapting advertising and public relations messages intended for targeted publics involving multimedia delivery platforms. The course focuses on the process and principles of writing, copy-editing, adapting messages for multimedia platforms, publication design, and evolving stylistic considerations in the advertising and public relations profession, as well as assessing message effectiveness.

***[COMM 308] Broadcast Journalism***

An introduction to the study of radio and television news. Students will study the field of broadcast journalism in the United States; the terminology associated with both radio and TV news, and broadcast writing style. Students will gain an understanding of foundational interviewing, storytelling and editing skills in order to produce stories for both radio and television news.

***[COMM 309] Reporting***

Reporting is designed to achieve the following outcomes: proficiency in writing both hard news and soft news; experience in integrating writing, editing and design through teamwork; competence in using Associated press style, grammar and syntax, as well as on-line and off-line research sources; skill in interviewing; and acquire an understanding of the theory and contemporary practice of journalism.

***[COMM 310] Rhetorical Theory and Criticism***

Examines the theory and criticism of rhetoric from its beginnings in classical times to its contemporary development. Discusses classical, British, contemporary, and postmodern theories of rhetoric and rhetorical criticism. MnTC Goal 6.

***[COMM 311] Principles of Persuasion***

This course will explore the logical and psychological theories of persuasion as they occur in a range of communication situations.

***[COMM 315] Communication Theory***

Through lecture, writing, and discussion, students will explore the discipline of communication including basic theories of interpersonal, group, intercultural, and organizational communication.

***[COMM 317] Training and Development***

This course examines the application of communication theories in the context of training and development. Development, design, and presentation of training materials will be covered, along with facilitation of training sessions. Class includes significant experience in program development and implementation.

***[COMM 319] Communication Research Methods***

Research in communication studies employs a variety of empirical methods to generate theories about human communication phenomena. This class introduces students to social-scientific methodologies including quantitative and qualitative approaches. Students are expected to both critically evaluate research and perform original research related to the discipline.

***[COMM 320] Layout & Typography II***

The course is designed to develop additional proficiency in terminology, design principles, use of software, critical analysis, and the publication ready production of projects in layout and typography.

***[COMM 321] Copy Editing***

Copy Editing is designed to achieve the following outcomes: competence in using Associated Press style, grammar, and syntax; skill in headline writing, cutline writing, photo and graphic editing, page layout and design; experience in producing a newsletter through the integration of writing, editing, and design; knowledge of current affairs; and an understanding of the theory and contemporary practice of copy editing.

***[COMM 324] International Communications***

The course is designed to achieve the following outcomes: students will acquire a geographical knowledge of countries (including basic demographic and media data) and world regions; experience in intercultural cyberspace correspondence; acquire knowledge of a non-Western country gained from non-U.S. on-line and off-line publications; ability to gather information from diverse sources, to analyze the findings critically and rationally using problem-solving skills, and to communicate effectively through clear writing; and an understanding of the ongoing Third Communication Revolution. Students will also acquire a knowledge of the major controversies related to international communication. MnTC Goal 8.

***[COMM 330] Photojournalism***

Photojournalism is designed to achieve the following learning outcomes: an ability to produce feature, sports, spot news, and environmental portrait photographs for the printed page; proficiency in shooting and laying out photo stories; and an introduction to the history and legal aspects of photojournalism.

***[COMM 331] Photo Editing***

The class is designed to achieve the following outcomes: proficiency to electronically scan, manipulate, sequence and lay out photographs for publication.

***[COMM 341] Television News Writing***

A practicum whereby students participate in the development of a weekly television program or project as part of a series of newscasts, public affairs programs or informative programs. May be repeated for credit.

***[COMM 342] Television News Reporting***

A practicum whereby students learn to produce television news packages. Reporters learn to cover stories as assigned and work along with photographers to construct weekly news packages. Those enrolled in this course must also take Television News Editing. May be repeated for credit.

***[COMM 343] Television News Photography***

A practicum whereby students learn to produce television news packages. Photographers shoot stories as assigned and work along with reporters to construct weekly news packages. Those enrolled in this course must also concurrently take TV News Editing. May be repeated for credit.

***[COMM 344] Television News Editing***

A practicum whereby students learn to produce television news packages. Video editors work with reporters and photographers to construct weekly news packages. They may be assigned also to edit video for voice-overs, sound bites and closing credits. Video editors edit television news packages with natural sound, natural lighting and video sequences. May be repeated for credit.

***[COMM 345] Television News Producing***

A practicum whereby students learn to produce television news programs. Producers stay informed about news stories, ensure that the future file is up-to-date, and assign stories to reporters, photographers, and videotape editors. Producers select readers, voice-overs, sound bites and packages for inclusion in a weekly newscast, determine the order of these stories and develop a smooth-flowing program within time constraints. Producers coordinate numerous aspects of the news operation and provide feedback to other participants. May be repeated for credit.

***[COMM 351] Messaging for Mobile Media***

A course designed to teach the principles, processes, and techniques of communicating through the use of mobile media platforms. The learning outcomes of this course include: 1) develop an awareness and understanding of mobile media platforms; 2) develop an awareness and understanding of the various messaging strategies and tactics available for mobile media users; 3) develop proficiency in the construction of mobile media messaging; 4) develop proficiency in the adaptation of the mobile message for evolving mobile media platforms; and 5) develop proficiency in evaluating the effectiveness of the mobile message using industry-based messaging standards.

***[COMM 352] Social Media Campaigns***

Introduction to the theory, application and criticism of social media communication for producers of online advertising and public relations campaigns. The course is designed to achieve the following learning outcomes: 1) to develop an awareness and understanding of the nature of the communications transaction occurring in a social media campaign; 2) to develop an awareness and understanding of the various media platforms encompassed under the rubric of social media; 3) to develop a proficiency in the design and construction of a social media campaign targeting a specific public(s) of an extant organization; and 5) to develop an ability to critically evaluate the effectiveness of a social media campaign.

***[COMM 353] Producing Sports Audio and Video***

A course designed to teach the principles and techniques of audio and video production for use in online and live sporting event situations. The learning objectives of this course include: to develop an awareness and understanding of the audio and video techniques of production employed in a sports broadcast situation; to develop an entry level proficiency in the use of audio and video production equipment; to develop an understanding of the process to stream audio and video messages over the internet and/or on a stadium display board; to demonstrate an ability to function effectively as a member of a sports broadcasting production team; and to demonstrate an ability to produce a live or recorded broadcast that meets an entry-level standard of excellence in the sports broadcasting industry.

***[COMM 354] Social Media Metrics***

A course designed to teach the principles, processes, and techniques of evaluating the social media choices using industry established metrics. The learning objectives of this course include, to: 1) develop an awareness and understanding of the social media measurement process; 2) develop an awareness and understanding of the various metrics available for measuring social media objectives; 3) develop an understanding of the criteria involved in selecting an appropriate metric for measuring a given outcome; 4) provide an experience in the measurement of an objective(s) in a social media campaign; 5) develop an understanding of the process of analyzing and interpreting the data generated in a social media

campaign; and 6) develop an understanding of the process of reporting the results of measurement in a social media campaign.

***[COMM 365] Media Planning***

The course is designed to develop an understanding of the principles involved in the selection of media; proficiency in the evaluation of syndicated media research; proficiency in planning the strategic use of media placements; proficiency in the estimation of media costs; proficiency in the execution of media buys at the local and national levels; and proficiency in the development of a media schedule.

***[COMM 366] Personal Selling***

A practical course in professional selling that explores the role of personal selling in the marketing mix and the development of effective techniques for the modern sales executive.

***[COMM 373] Radio/Television Performance***

Theory and practice in the professional areas of radio and television performance, from auditioning through final tapings.

***[COMM 375] Strategies and Tactics in Public Relations***

The course is designed to achieve the following learning outcomes: 1) to analyze a public relations case study and identify the salient issues; 2) to identify the defined objectives in a case study; 3) to develop an awareness and understanding of the strategies and tactics employed in a case study; 4) to develop an awareness and understanding of the analytics used to evaluate the achievement of both impact and output objectives in a case study; 5) to accumulate a repertoire of strategic public relations strategies and tactics that can be used to respond to a future PR situation; and 6) to construct a written plan of professional, entry-level, proficiency that delineates a public relations response to a challenge, opportunity or problem in public relations.

***[COMM 376] Crisis Communications***

Crisis Communications is a course designed to develop an awareness and an understanding of the principles and communication processes used to respond to a crisis that threatens the image, credibility and/or viability of an organization. Topics include the typologies of a crisis, the stages of a crisis, the process of developing and administering a comprehensive crisis communications plan, the strategies and tactics of messaging and interacting with media and other key publics in a crisis setting, and an examination and critique of case histories of an organization's response to an actual crisis.

***[COMM 379] Ad Agency Practicum***

Flypaper Creative Services is a student-run ad agency centered in FR 256. The agency interacts with actual clients, mostly nonprofits or start-up companies, and produces materials like posters, brochures, advertisements, television and radio commercials, web sites and/or marketing plans. Participants in the agency serve as account managers, copywriters or designers. Participation in this class is by special permit only, granted to those who demonstrate competence in the areas of design, copywriting and account management. Participants receive three credits per semester and are encouraged to participate for more than one semester.

***[COMM 380] Foundations of Sports Communication***

The theory and practice of sports communication exploring its role in sports programming and its potential as a communication's career. The course will examine the nature and processes of strategic sports communication in the sports organization as well as its establishing and maintaining relationships with its targeted publics.

***[COMM 381] Sports Information and the Media***

The course deals with the role of the sports information director in creating sports publicity. Attention is concentrated on how the sports information director serves as an information broker between organizations, both professional and amateur, and media outlets.

***[COMM 382] Sports Promotions***

The course focuses on the promotion of sports through marketing, sales and public relations in a seminar with experts in sports and related industries. Sports Promotions is designed to achieve the following learning outcomes: 1) develop an understanding of the role sports promotions plays in building relationships with target publics; 2) develop an understanding of the role that sports promotions plays in communicating information; 3) develop an understanding of how to construct a sports promotions tactic; 4) develop an understanding of the tactical implementation of a sports promotion; 5) develop an ability to evaluate the effectiveness of a sports promotion tactic; and 6) provide an experiential opportunity to plan, implement, and evaluate a sports promotion activity.

***[COMM 383] Event Planning***

Event Planning is a course designed to explore the public relations role that a special event(s) plays in building and maintaining a relationship(s) with a target audience(s), as a part of an integrated marketing communications plan (IMC). This course provides both a theoretical and an experiential exposure to the processes of planning, implementing, and evaluating a special event. The learning outcomes of the course are to: 1) develop an understanding of the strategic role that special events plays as a part of an IMC plan; 2) develop an understanding of the project management process employed to develop a special event as a public relations tactic; 3) develop an understanding of the components involved in effectively designing the public relations special event; 4) develop an understanding of how to implement special events as a public relations tactic; 5) develop an understanding of the process used to evaluate the effectiveness of a public relations special event; and 6) provide an experiential learning opportunity in the planning, implementation, and evaluation of a public relations special event.

***[COMM 390] Topics in Communication***

Study of a particular mass communication topic: exploration of emerging issues, methodologies, and new technologies related to the study or application of mass communications theory not addressed in other courses. May be repeated when topic varies.

***[COMM 395] Practicum***

Practical experience in a performance activity in Communication.

***[COMM 400] Mass Media Ethics and Issues***

Study of ethical considerations in advertising, journalism and public relations as well as major contemporary issues in the mass media. Emphasis will be placed upon research findings regarding mass media effects and the resultant alternatives for policymakers, practitioners and consumers.

***[COMM 401] Organizational Communication***

Focuses on the study of communication processes, the management of meaning through symbolic interactions, within organizational contexts. To study symbolism is to explore how meanings on which people base action are constructed, communicated, contested, and changed. The first part of the class examines perspectives/theories of organizing and communication. The second part of the class investigates specific topics of organizational communication research (e.g., power, technology, democracy).

***[COMM 402] Introduction to Publishing***

This course familiarizes students with the history and current trends in small press publishing. Course topics include acquisitions, editing, marketing, publicity, finances, copyright, electronic publishing, literary magazines, and children's & YA publishing.

***[COMM 403] Communications Law***

Examination of the legal and constitutional history of freedom of speech and press, and a consideration of the legal philosophy bearing upon the communications media and a system of freedom of expression. Students will explore

leading cases involving freedom of speech, press, assembly and petition.

***[COMM 405] Writing for the Web***

As a result of actively participating in the course, students should be able to: (1) Understand changing media consumption and production patterns as media increasingly converges on the Web, (2) gain and build proficiency in writing and crafting media messages designed specifically for Web presentation, (3) identify and use evolving mass communication methods not solely available to print or broadcast media, and (4) understand best writing practice for connecting with Web-based audiences.

***[COMM 406] Feature Writing***

Feature Writing is designed to achieve the following outcomes: proficiency in writing feature stories for publication in a print or an online media outlet; develop an understanding of the process of writing features; competency in adapting to the variances required in a feature story when the medium of publication changes; and competency in pitching potential feature stories to editors, as well as the process of adapting feature stories to meet requisites imposed by paying clients.

***[COMM 407] Magazine Writing***

Magazine Writing is designed to achieve the following outcomes: proficiency in writing appropriate materials for publication in a print or an online magazine; an understanding of the editorial and production processes of successfully publishing in print and online magazines; and competency in pitching a prospective story to publishers.

***[COMM 410] The Rhetoric of Popular Culture***

Examines how popular culture artifacts generate meanings in contemporary society. Surveys various rhetorical approaches to understanding popular culture including dramatistic, Marxist, feminist, media-centered, and cultural.

***[COMM 411] Political Campaign Communication***

This class explores political campaign rhetoric by looking at the theories and research that contribute to our understanding of the process. The course discusses the current campaign in light of these theories and research, but also takes a broader view towards political campaigning in general. MnTC Goal 9.

***[COMM 414] Health Communication***

Focuses on how health, illness, and healing acquire meaning through symbolic interactions located within social, political, economic, and cultural structures. This course explores various arenas in which health is socially constructed including interpersonal interactions, small group and organizational settings, public discourse and popular culture. Across contexts, there is an emphasis on exploring current issues facing the health care industry including telemedicine, financial reform, the patients' rights movement, and other factors influencing health communication.

***[COMM 415] Teaching Methods: Communication Studies***

Methods of conducting high school communication studies courses and activities, structuring of curriculum, selecting and developing course materials, and methods of evaluation.

***[COMM 416] Special Projects in Speech Communication***

Advanced individualized creative or investigative work in a particular phase of communication studies. May be taken more than once if content is substantially different.

***[COMM 417] Academic Service-Learning Practicum***

Provides opportunity for students to apply classroom concepts and theories to an academic service-learning project. May be repeated for credit.

***[COMM 420] Digital Storytelling***

In this advanced online journalism workshop, students synthesize storytelling forms -- writing for Web, broadcast and print; videography; social media; photography; and editing. Legal and ethical issues of online publishing are addressed. Repeatable for credit.

***[COMM 423] Marketing Communications***

A survey of the elements of marketing, advertising, public relations, sales promotion, and personal selling--with a strong emphasis on the strategic integration of these methods to achieve synergy in their application in the marketplace.

***[COMM 430] Documentary Photography***

The class is designed to achieve the following outcomes: an ability to research, photograph, organize and present a group photographic project documenting some aspect of our region. Repeatable for credit.

***[COMM 431] Photo Story***

The class is designed to achieve the following outcomes: an ability to research, photograph, organize and present a group photographic project documenting some aspect of our region. Repeatable for credit.

***[COMM 440] Broadcast Documentary***

History and analysis of non-fiction documentation via radio, film and video. Each student will write a treatment and shooting script for a documentary and participate in the development of a television documentary program. Repeatable for credit.

***[COMM 459] Advertising and Public Relations Campaign Research***

The course is designed to achieve the following learning outcomes: an ability to analyze an advertising and/or public relations campaign situation; an ability to identify salient issues relative to the market, consumer, media and product; an ability to construct a research plan; proficiency in conducting primary and secondary research using selective research methodologies drawn from content analysis, historical-critical analysis, survey, in-depth interview and focus groups. The PRSSA campaign topic is used and student membership in PRSSA is required for the Public Relations Campaign. The AAF campaign topic is used for the advertising campaign and student membership in AAF is required for the advertising campaign.

***[COMM 460] Advertising and Public Relations Campaign Execution***

The course is designed to achieve the following learning outcomes: proficiency in the design and production of a strategic campaign document using the AAF topic and/or the Bateman Study. That includes a situation analysis, a market plan, a media plan, a promotions plan, a public relations plan, an advertising plan, a budget, a campaign schedule and a plan of evaluation, oral presentation of the campaign at the annual AAF competition and/or Bateman competition. Membership in AAF is required for the AAF topic, membership PRSSA is required for the Bateman Study.

***[COMM 461] Ad Portfolio Development***

Students in this course will develop portfolio elements such as advertisements, logos, posters, brochures and banner ads. The course is for students who are interested in working in a creative department of an ad agency or in-house advertising department. Individual portfolio elements are sent out for evaluation to working professionals from the local area, the region and the nation. In order to be part of a student's portfolio, the piece must have been approved by at least one outside source. At the end of the semester, students will have at least 12 approved pieces for their portfolios and will have both a physical portfolio and an online portfolio.

***[COMM 462] Practicum in Publishing***

This course is designed as a practical, hands-on experience for students to learn about the working functions of small press ventures such as the production of a literary magazine and/or a chapbook. This course is delivered through lectures, demonstrations, and supervised group

activities. For example, students participate on editorial teams, curate illustrations, design book covers, organize reading tours, and develop marketing plans. All student projects are presented in class to demonstrate the process of producing a literary magazine and/or chapbook. Same as ENGL 462.

***[COMM 469] Internship***

Communication/Mass Communication Internship 1-12 credits. Students need to be a major in the School of Communication and Journalism. A maximum of 12 internship credits may be applied to the degree (Communication Studies students may apply 6 credits to the major). Students must be of junior standing.

***[COMM 490] Topics in Communication***

Study of a particular communication topic: exploration of emerging issues, methodologies, and new technologies related to the study or application of communications theory not addressed in other courses. May be repeated when topic varies.

***[COMM 496] Communication Studies Senior Seminar***

Capstone course for Communication Studies majors; proposal, completion, and presentation of projects; pre-professional skills; written exam integrating and applying knowledge from separate courses. Grade of "C-" or higher is required for graduation.

***[COMM 497] Individual Study***

Individual problems in areas of specific interest to the student.

## Computer Science & Information Systems

***[CSIS 103] Computer Concepts and Applications***

Introduction to basic computer concepts including hardware and software. Introduction to and hands-on experience with Windows, spreadsheets, word processors, database management systems, and presentation software as used in a business setting.

***[CSIS 104] Spreadsheet and Database Applications***

A brief review of Windows, word processing and presentation software. In-depth coverage of a spreadsheet and a database management system as used in a business setting. Familiarity with Windows and word processing is required.

***[CSIS 104A] Advanced Spreadsheet Topics***

Understand and apply the advanced features of spreadsheet software such as templates, financial functions, importing/exporting data, solving complex problems, and creating and manipulating lists. Familiarity with spreadsheets is required.

***[CSIS 115] Introduction to MacOS X***

An introduction to the effective and knowledgeable use of MacOS X and associated technologies.

***[CSIS 145] Introduction to Information Systems***

This is an introduction to information systems fundamentals and modern information systems architectures.

***[CSIS 152] Introduction to Computers and Programming I-a***

Introduction to problem solving, algorithm development, elementary data structures, data abstraction, and structured programming in a high-level language.

***[CSIS 153] Introduction to Computers and Programming I-b***

Continuation of the introduction to problem solving and programming techniques with a focus on application of object oriented techniques for defining and implementing data structures.

***[CSIS 190] Topics in Computer Science & Information Systems***

A study of special topics not offered regularly in other CSIS courses. May be repeated when the topic is different.

***[CSIS 222] Computer Maintenance***

This course covers the operation, diagnosis, troubleshooting and basic repair of microcomputer components. Topics include hardware compatibility, system architecture, memory, input devices, video displays, disk drives and printers.

***[CSIS 241] Introduction to Web Design and Development***

Introduction to web design and development using HTML, CSS, and JavaScript.

***[CSIS 252] Introduction to Computers and Programming II***

Continuation of CSIS 153 with emphasis on data structures. Discussion of representations and processing techniques for lists, strings, trees, graphs, and records.

***[CSIS 290] Topics in Computer Science & Information Systems***

A study of special topics not offered regularly in other CSIS courses. May be repeated when the topic is different. Consent of instructor is required.

***[CSIS 304] Databases***

This course provides a solid and practical foundation for the design, implementation, and management of database systems. The relational database model, relational databases, and Structured Query Language (SQL) are discussed in all details.

***[CSIS 311] Server-Side Scripting***

An introduction to server-side scripting. Scripts will be used to generate functional web pages. In addition, databases will be created and accessed through server-side scripts.

***[CSIS 316] Ethics in the Information Age***

An introduction to ethical issues associated with the Information Age. A description of what the Information Age is, how it came to be, and what makes it different from the previous age. Students will study new ethical issues arising from, or given increased prominence by, the Information Age, advances in information collection, storage, retrieval, processing, and dispersion. Ethical issues to be covered include privacy, surveillance, accuracy, free speech, intellectual property, Internet crime, identity theft, spam, information access, information dispersion, and some consequences of data mining and emerging technologies. A significant portion of the assignments in the course require both formal and informal writing. It is critical that learners can express themselves in writing, expressing their views on ethical issues that continue to develop as new technologies emerge. Written work will be emphasized as shown: • Weekly written discussions • Weekly "polls" (3 per week – an article related to current technological developments will be posted, and a reflection about the ethical considerations will be required.) • Persuasive Paper (Each week, one of the required sections of the paper will be handed in as a draft. Feedback will be provided on each draft. The revised (complete) paper is due the last week of the course. MNTC Goal 9

***[CSIS 320] Architecture***

Basic principles of processor organization, machine instructions, addressing modes, memory management, and input/output operations. Includes coverage of assembly language.

***[CSIS 335] Graphical User Interface Programming***

Techniques and tools for the development of graphical user interfaces will be discussed. Event-driven and object-oriented programming techniques will be highlighted. The course provides experience with a visual programming environment, and introduction to design issues for user interfaces, and an introduction to creating visual interfaces for database environments.

***[CSIS 336] C#.Net Programming***

A comprehensive introduction to programming using Visual C#.Net for students with experience in at least one high-level programming language. The course provides students with all the necessary skills to build Windows applications, Web applications, and XML Web services.

***[CSIS 340] Software Engineering***

A study of the software development life-cycle including Requirements, Design, Implementation, Testing, Maintenance and Quality Assurance. Tools, techniques and methods will be studied. Project required.

***[CSIS 341] System and Network Administration***

This course is designed to provide students with an understanding of the activities and responsibilities of an administrator of an enterprise computer system and/or computer network. It focuses on the installation, configuration, and maintenance of system software, the management of users and resources and the deployment of network services. Students will investigate topics through research, discussion, and hands on practice.

***[CSIS 349] Networks and Data Communications***

Introduction to concepts and terminology of data communications technology. Local area and Long-haul networks; network architecture models and protocols; communications hardware, standards, media, signaling concepts, and channel characteristics; error prevention, detection and correction; distributed data processing and data communications trends. Project required.

***[CSIS 349L] Networking and Data Communications Lab***

Lab to accompany CSIS 349: Networking and Data Communications. Taken concurrently with CSIS 349, provides the following: A study of how TCP/IP protocol software functions and interacts to facilitate communication across an internet. The Client/Server Model, its service techniques, efficiency and security issues are investigated in detail. Programming project(s) required.

***[CSIS 352] Advanced Concepts in Programming***

Continuation of CSIS 252 with emphasis on the implementation of data structures, implementation alternatives, and algorithm analysis.

***[CSIS 360] Linux Programming and Development Tools***

An introduction to UNIX programming and program development tools. Considers the UNIX file system, shells, scripting languages, system calls, signal handling, interprocess communication, and tools for constructing, archiving, debugging, testing and installing software products.

***[CSIS 362] Cybersecurity Fundamentals***

This course will provide students with a high-level introduction to the fundamental concepts behind cybersecurity, basic information about the threats that may be present in the cyber realm and a basic understanding of how mathematical logic can be applied to the design of secure systems.

***[CSIS 364] Information Systems Security***

This course will provide students with a basic understanding of the components of an information technology system and their roles in system operation. It will provide students with knowledge of basic security design fundamentals that help create systems that are worthy of being trusted.

***[CSIS 365] Mobile Application Development & Programming***

The course provides an introduction to the design and implementation of applications for mobile devices. It addresses creating and deploying applications. Topics include architecture overview, the application lifecycle, mobile APIs, mobile development tools, design of the user interface, and integrating apps with a database.

***[CSIS 390] Topics in Computer Science and Information Systems***

Discussion of current topics not included in other Computer Science and Information Systems courses.

***[CSIS 430] Operating Systems***

A study of operating systems as a resource manager with emphasis on process management and synchronization, CPU scheduling, deadlocks, memory management, virtual memory, file management, I/O systems, and distributed

systems. Project required. Prior or concurrent enrollment in CSIS 352 is required.

***[CSIS 434] Modern Software Development***

Modern Software Development

***[CSIS 441] Network Security***

This class addresses those fundamental issues confronting today's network administrator. Topics covered include LAN subnetting and router configuration, security policy development, data security and encryption, access control, packet filtering, perimeter protection, intrusion detection, and disaster recovery. The amount of time spent on each topic and on current issues will vary with the interests/composition of the class. Junior standing in a CSIS major is required.

***[CSIS 446] Intelligent and Predictive Systems***

Introduction to the concepts and tools used in the development of decision support systems, executive information systems and expert systems by utilizing different methodologies and models, Machine Learning, and Data Warehousing, including strategies for developing such systems. Senior standing in a CSIS major is required.

***[CSIS 450] Programming Languages***

An examination of underlying concepts in high-level programming languages and techniques for their implementation in a selected group of such languages along with a discussion of the interrelationship between programming and programming languages.

***[CSIS 455] Compilers***

Organization of compilers; transition graphs, lexical analyzers, regular expressions and lexical analyzer generators; context-free grammars, top-down and bottom-up parsers, and parser generators; error recovery. Students are expected to carry out a project which involves developing a front-end (lexical analyzer, parser and 3AC generator) of a compiler for a hypothetical Pascal-like language.

***[CSIS 462] Software Security***

The intent of this course is to provide students with the ability to describe why software assurance is important to the development of secure systems and describe the methods and techniques that lead to secure software. Further, this course will provide students with an understanding of the characteristics of secure programs and help students apply basic security design fundamentals to implement programs that are free from vulnerabilities and worthy of being trusted.

***[CSIS 464] Software Security Analysis***

The intent of this course is to provide students with an understanding of the tools and methods for analyzing software, in either source code or binary form. This course will provide students with a thorough understanding of system vulnerabilities including what they are, how they can be found, and/or identified, the different types of vulnerabilities, how to determine the root cause of a vulnerability, and how to mitigate their effect on an operational system.

***[CSIS 469] Internship***

Opportunity for students to supplement classroom learning with field work with a computer-using agency. A maximum of 3 credits applicable toward the major. Instructor permission required.

***[CSIS 490] Topics in Computer Science and Information Systems***

Discussion of current topics not included in other Computer Science and Information Systems courses. Up to 3 credits can be applied to the major. Junior standing in a CSIS major is required.

***[CSIS 492] Senior Seminar***

Library and independent study of advanced computing topics followed by oral and written presentations. Students should plan to take this course in the year that they graduate. Junior standing in a CSIS major is required.

***[CSIS 494] Undergraduate Research***

Undergraduate research of advanced topics under the guidance of department faculty. Up to 3 credits

can be applied to the major. Must be CSIS major. Instructor permission required.

## Construction Management

### *[CM 105] Introduction to Construction Management*

An overview of the construction industry which introduces the student to the duties and responsibilities of the professional construction manager. Lectures, field trips, and speakers will expose students to the fundamentals of construction techniques and methods employed by professionals in the industry with an emphasis on career opportunities.

### *[CM 200] Construction Surveying*

An introduction to the processes and calculations used by construction surveyors, including measuring distances and angles, direct differential leveling, locating line and grade on a construction site, and processes specific to construction surveying.

### *[CM 200L] Construction Surveying Lab*

Hands-on experiences with transit, level, and total station. Measuring distances and angles, direct differential leveling, and construction site layout.

### *[CM 205] Professional Growth Seminar I*

The course content is directed towards the overall professional growth of students who are passionate about a career in construction. The course establishes standards for promoting ethical and professional practices in construction. Oral and written communication assignments include, but are not limited to; resume application, cover/thank you letters, proper interviewing skills, an individual presentation, and an assessment of personal ethics.

### *[CM 216] Construction Graphics*

This course introduces construction printreading fundamentals and utilizes examples related to residential construction. Course material reinforces methods of construction/terminology and appropriate use of building materials. Students will utilize 3-D CAD modeling software for the design and layout of a residential construction project. Through the creation of a set of construction drawings, lecture materials will be reinforced while emphasizing the design process of a construction project. Students are expected to use CAD software in subsequent coursework and for CM 492 - Capstone Experience. (3 Credits, Prerequisites: none)

### *[CM 220] Commercial Building Methods and Materials*

Theories and principles of commercial building construction materials and methods will be discussed. The course lectures will be structured in accordance with the Construction Specifications Index (CSI) format of work divisions. (CSI) format of work divisions. (Division 1-14 General; Division 21-23 Mechanical; Division 26-28 Electrical; Sitework Div. 31-35

### *[CM 230] Estimating I: Quantity Survey*

Students will study basic principles and practices of estimating focusing on quantity survey. From a set of commercial building working drawings and specifications, students will perform quantity labor, material, and equipment takeoffs. They will learn quantity survey best practices necessary to effectively estimate the cost of a construction project. Prerequisite: CM 216 and CM 220 or concurrently enrolled

### *[CM 254] Mechanical/Electrical Systems*

A study of mechanical and electrical construction, emphasizing principles of heating, cooling, ventilation, water supply, waste disposal, electrical distribution and code requirements.

### *[CM 290] Topics in Construction Management*

This is a lower division topical course in Construction Management. The course may be repeated when the topic is different.

### *[CM 325] Heavy/Highway Construction Materials*

Course subjects include a study of the basic engineering properties of soils and compaction applications. Other topics include how concrete and asphalt are used as construction materials and analysis of their engineering properties. Design and construction applications of flexible and rigid pavements are presented.

***[CM 326] Heavy/Highway Construction Materials Lab***

Lab will include activities which help the student better understand the engineering properties and field processes associated with fine and coarse-grained soils, concrete, and asphalt. Must enroll concurrently in CM 325.

***[CM 327] Sustainability in the Built Environment***

The purpose of the course is to provide an overview of living in a sustainable environment and what we can do as a society to measure our resource use. Also, to encourage a change in our views regarding our limited resources and our overuse of the ecosystem by understanding our own culpability. Student awareness of energy conservation is modeled through construction principals that can be broadly applied to everyday lifestyle changes in our daily activities including where we live, where we work and the consumer choices we make in those environments. The U.S. Green Building Council and Leadership in Energy and Environmental Design (LEED) criteria are discussed. Major alternatives to LEED will also be covered. This course is open to all students. MnTC Goal 10.

***[CM 335] Estimating II-Pricing and Productivity***

Students will learn the fundamentals of pricing out a quantity survey and the relationship of how productivity factors are used to formulate unit pricing. They will estimate the material, labor, equipment, subcontractor, and overhead cost of the commercial building project that was completed in CM 330. "Timberline" estimating software is utilized extensively as a basis for learning principles of computerized estimating. Job cost accounting procedures are emphasized.

***[CM 340] Planning and Scheduling***

Theories and principles of construction planning and scheduling will be studied. Students will use the Critical Path Method as a primary technique of planning, scheduling, and monitoring work. Agile project management techniques and lean construction concepts are incorporated into assignments and projects. The students will identify required activities, resources and costs required to complete and monitor a project throughout the construction process. Students will be required to complete both manual and computer scheduling assignments.

***[CM 350] Structural Analysis***

Students will understand fundamental concepts for the design and construction of structures, both temporary and permanent. Students will demonstrate knowledge of design processes by appropriate selection of structural members for given loading conditions. Topics include beam and column design for both structural steel and wood, tributary loads, scaffolding applications in construction, concrete formwork design, bridge construction, and temporary falsework applications.

***[CM 365] Construction Safety***

The course focus will focus be on the planning and administration of construction safety programs. Other topics include the history and development of Federal and State Construction safety standards and methods for abatement and as well, as control of job site hazards to develop a safe construction project. Students are required to create a construction project safety plan.

***[CM 370] Construction Documents and Specifications***

This course will focus on the terms and concepts of construction contracts and documents. Procedures used to prepare construction specifications and contracts using the CSI format will be covered. The course discusses the liabilities and incentives for various kinds of construction contracts.

***[CM 390] Topics in Construction Management***

This is an upper division topical course in Construction Management. The course may be repeated when the topic is different.

***[CM 425] Equipment Productivity and Analysis***

A study of planning, estimating, and managing performance of commonly recognized construction equipment. This course will emphasize the factors that govern or control equipment productivity on construction projects. Students will also study operating and ownership costs.

***[CM 434] Construction Cost Analysis***

This course will analyze a contractor's ability to bid, bond, and perform a construction project. Students will also set up and analyze a construction budget/cost control systems that will effectively identify cost overruns and which can be used to bid future similar projects.

***[CM 445] Contractor Quality Management***

Contractor Quality Management is a management philosophy that includes design and implementation of detailed Contractor Quality Program. The quality planning document outlines a thorough step-by-step process which ensures the highest quality of construction for the completed project in a safety conscious environment.

***[CM 460] Project Administration***

Students will be exposed to the daily construction administrative procedures and responsibilities which occur when managing a construction project. Reporting procedures will be emphasized, along with job site and home-office documentation.

***[CM 469] Internship***

Available to all majors in Construction Management. Approved practical work experience. Supervised by departmental faculty.

***[CM 470] Construction Law***

An in-depth study emphasizing the legal issues and ramifications involved in the implementation and management of contracts, specifications, and other construction documents. Other issues, strictly related to the construction industry, will be discussed including labor laws, unions, and the rights and responsibilities of the contracting parties.

***[CM 490] Topics in Construction Management***

This is an upper division topical course in Construction Management. The course may be repeated when the topic is different.

***[CM 492] Capstone Experience***

The Construction Capstone Experience will integrate the coursework concepts of the core program in a research/application activity. The course is intended to develop a higher level of comprehensive understanding of the construction process and problem solving associated with the life cycle of a construction project. The course utilizes knowledge and concepts developed in earlier coursework to enhance the student's understanding of the interrelationships between the design process, estimates, schedules, and contracts. The course will simulate a construction project. The students will work in teams. Each team will be totally responsible for designing, developing, estimating, scheduling, contracting, and administering the works for the completion of a small commercial or light commercial project. The students will complete a major portion of the course requirement through the use of applicable construction software programs taught in the CM curriculum. The course will further develop and utilize oral and written communication skills, which have become a major factor in determining the success of the construction managers and executives.

***[CM 497] Independent Study in Construction Management***

Independent Study in Construction Management. Maybe repeated as the topic changes.

## Criminal Justice

***[CJ 111] American Criminal Justice***

The importance of race, ethnicity, and gender in criminal justice processes. MnTC Goal 2.

***[CJ 190] Topics in Criminal Justice***

This is a lower division topical course which may be repeated when the topic changes.

***[CJ 200] Introduction to Criminal Justice***

Overview of the criminal justice field focusing on the history and description of the contemporary United States system. The overview will include both the adult and the juvenile justice system.

***[CJ 201] Introduction to Juvenile Justice***

This course provides an overview of historical and contemporary perspectives of juvenile justice within the United States. Specifically, this course examines: (1) the development of the U.S. juvenile justice system, (2) definitions and measurements of juvenile delinquency, (3) controversial juvenile justice practices and policies, and (4) the complex relationship between juvenile justice, race/ethnicity, gender, and socio-economic status.

***[CJ 290] Topics in Criminal Justice***

This is a lower division topical course which may be repeated when the topic changes.

***[CJ 300] Criminology***

This course will survey the history of crime in society, including theories, research and commentaries on crime and delinquency.

***[CJ 301] Delinquent Behavior***

Delinquent behavior and programs for its prevention, treatment and control. Same as SOC 301.

***[CJ 303] Punishment and Prisons***

This class traces the origins and development of incarceration as the principle response to crime in the U.S. It explores changing punishment practices, reasons offered to justify punishment, and the social organization of contemporary U.S. prisons.

***[CJ 304] Community Corrections***

Sociological analysis of community corrections, emphasizing probation and parole.

***[CJ 306] Gangs***

This course examines historical and contemporary perspectives of gangs in the United States, and briefly explore international gang activity. MnTC Goal 5.

***[CJ 309] Law and Society***

Relationships of law and society; social forces in law making; dynamics of law administration; social, cultural and behavioral effects of law; history and development of the legal profession; analysis of legal language and reasoning. Prerequisite may be waived with the consent of the instructor. Same as SOC 309.

***[CJ 312] Criminal Investigation***

This course will cover a variety of topics that would assist law enforcement officers in conducting investigations.

***[CJ 313] Law Enforcement***

This course will examine the origin, history, and development of policing in the United States.

***[CJ 335] Criminal Law***

Substantive criminal law, development and meaning of principles of criminal law, current issues. Same as POL 335

***[CJ 337] Criminal Procedure***

The course will examine contemporary interpretations of the U.S. Constitution's protections for the criminally accused, which are primarily found in the 4th, 5th, 6th, 8th, and 14th Amendments.

***[CJ 380] Global Criminal Justice***

Research, commentary, and theory in international crime and social control. Particular attention is given to social inequities and human rights. MnTC Goal 8.

***[CJ 385] Crime, Justice, and Media***

An exploration of how justice ideals are represented in print, broadcast, and Internet Media. Special attention is given to ethical codes and dilemmas for officers of the court. MnTC Goal 9.

***[CJ 390] Topics in Criminal Justice***

This is an upper division course with varying topics from the discipline of criminal justice.

***[CJ 400] Seminar in Criminal Justice***

An in-depth analysis of a topic in criminal justice. Students may apply up to 8 credits to the degree.

***[CJ 430] Minnesota Criminal Law and Procedure***

The Minnesota criminal statutes as well as the Minnesota rules of criminal procedure are examined. Technical study of police report writing designed to meet the standards of the POST Board licensing examination will be covered.

***[CJ 444] Sociology for Law Enforcement***

This class examines the role of sociology in the development of American police policies and training. It emphasizes challenges such as homelessness, mental illness, autism, post-traumatic stress, suicide, and other issues of particular importance to rank and file police officers, and discusses how modern sociology has challenged and improved American policing. The class also addresses a number of learning objectives required by the Minnesota Board of Peace Officer Standards and Training for police officer licensing.

***[CJ 445] Drug Abuse Control Policy***

This course aims to understand the personal and societal impacts of drug use and abuse in late-modern societies and the systems and policies governments have implemented in response. It will include a sociological assessment of the societal construction of drug use as a social problem, and the complex interplay between moral panics around drug use/abuse and the creation of laws and social policy in response to the public's outrage. This course studies drug policies in the United States and drug policies from other nation-states, including the global south, to see what lessons we can learn from other societies and cultures. It considers how drug laws/policies have differentially affected some communities especially BIPOC ones. The connection between drug abuse and crime, and the criminal justice response to this relationship, is a salient theme of the course. Finally, this course reflects on the medicalization of addiction and how the shift away from criminalizing drug use/abuse affects public policy and law enforcement practices.

***[CJ 469] Internship***

A supervised, practical experience in criminal justice. A maximum of 12 internship credits may be applied to the degree. Credits may not be applied to the criminal justice major.

***[CJ 490] Topics in Criminal Justice***

This is an upper division course with varying topics from the discipline of criminal justice.

***[CJ 497] Readings in Criminal Justice***

Selected readings in Criminal Justice under the close supervision of a member of the CJ program.

## Economics

***[ECON 100] The American Economy***

A one semester course in principles of economics with special emphasis in developing critical thinking skills and understanding the unique economic experiences of different groups in the American Economy. This course is for non-business and non-economics majors. MnTC Goal 2.

***[ECON 202] Principles of Economics I: Micro***

An introductory study of the price system, resource allocation, and income distribution. MnTC Goal 5.

***[ECON 204] Principles of Economics II: Macro***

An introductory study of national income, fiscal and monetary theory and policy, unemployment and inflation. Prerequisite can be waived with consent of the instructor. MnTC Goal 5.

***[ECON 300] Global Economic Issues***

An introductory study of global economic issues focusing on the experience of Asia, Africa, or Latin America. Topics include the role and history of international economic institutions, the impact of trade on participating nations, views of writers from selected regions, economic development, demographic trends, foreign investment, and international distribution of income and wealth. This course will not fulfill the economics major requirements. MnTC Goal 8.

***[ECON 302] Intermediate Microeconomic Theory***

Theories of consumer and producer behavior under various market structures; theory of production and distribution; general equilibrium and welfare criteria.

***[ECON 304] Intermediate Macroeconomic Theory***

An examination of national income accounting, income determination, employment, growth theory and economic policy.

***[ECON 305] The Economics of Poverty, Discrimination, and Inequality***

An examination of poverty, discrimination, and income inequality among diverse populations in the United States. Topics include causes of poverty, economics of discrimination in terms of majority and minority groups, and historical perspective of ethnic minorities. MnTC Goal 7.

***[ECON 315] Government and Business***

A survey course which includes governmental enforcement of competition, regulation of public utilities, and public enterprise. Same as MGMT 315.

***[ECON 320] Money and Banking***

Roles of money, banking and the financial market place; monetary policy; relationship of monetary variables to general economic policy.

***[ECON 340] The Gendered Economy***

Explores how gender has influenced access to economic resources, opportunities, and institutions in the United States. Topics include a historical perspective on women's pursuit of economics citizenship; intersectional analysis of the role of race and class in that pursuit; and an introduction to feminist economics. MnTC Goal 9.

***[ECON 350] Public Finance***

Study of taxes and expenditures of federal, state, and local governments and their effects upon economic activity, fiscal policy and national debt.

***[ECON 370] Introduction to Econometrics***

Study of quantitative techniques employed in economics.

***[ECON 390] Topics in Economics***

Topics of current interest not covered elsewhere in the curriculum.

***[ECON 415] Industrial Organization and Public Policy***

Analysis of market structure, market conduct, and economic performance. It combines the latest theories with empirical evidence about the organization of firms and industries. Same as MGMT 415.

***[ECON 416] Labor Economics***

Wage and employment theory, labor unions and other institutions associated with collective bargaining, and social legislation. Same as MGMT 416.

***[ECON 425] International Trade and Finance***

Theories and institutions of trade and finance are examined in traditional and contemporary contexts.

***[ECON 469] Internship***

Supervised economic field work through placement in government, volunteer or commercial agencies. A maximum of 12 internship credits may be applied to the degree.

***[ECON 492] Economics Senior Seminar***

A capstone course requiring a research paper using tools of economic analysis, and a written and oral presentation.

***[ECON 494] Undergraduate Research in Economics***

Individual inquiry in economics resulting in a research paper. May be repeated for credit.

***[ECON 497] Independent Study***

Individual inquiry in economics. May be repeated for credit.

## Education

***[ED 205] Introduction to Education***

This course explores education in America from early childhood through high school graduation. This course will introduce the philosophical foundations, learning environments, social contexts, curriculum and instruction, standards and assessment, as well as contemporary issues related to the field. The roles, responsibilities and daily life of teachers, schools and students will be examined. This course includes 32 hours of experience in the field.

***[ED 294] Educational Psychology***

Explains psychological theory and research related to learning, motivation, cooperation, and instruction in diverse cultures and settings.

***[ED 310] Social Foundations of Education***

Historical, social, and multicultural foundations of education will be studied. Social and ethical issues will be examined with consideration of implications for teaching in order to better understand education within a context of a changing society. A variety of interactive methods will be employed. Students in all teaching licensure programs will enroll in ED 310. This course includes a 10-hour practicum outside of the classroom setting with students from various economic and sociocultural backgrounds.

***[ED 350M] Middle Level Field Experience***

Supervised field experience required for middle level endorsements. Minimum of 30 hours. Recommended to take concurrently with methods course in middle level endorsement (ENGL 484, MATH 316, or BIOL 440).

***[ED 350R] Corrective Field Experience***

Supervised field experience taken as needed. Students who need additional experiences beyond program requirements will enroll in this field experience per direction of Teacher Education Field Experience Office. Permission is required to enroll.

***[ED 448] Reading Study Skills in the Content Areas***

Teaching techniques to improve reading ability in content materials; vocabulary, comprehension, study skills and providing for individual learning differences. Includes child development, assessment, cultural diversity issues, and technology.

***[ED 460M] Student Teaching: Middle School***

Supervised student teaching experience in a middle school (grades 7-8). Applications are due per posted Field Experience deadlines

***[ED 460S] Student Teaching: Secondary***

Supervised student teaching experience in a secondary school (7-12). Applications due as per posted deadlines in Field Experiences Offices.

***[ED 461S] Student Teaching: Secondary***

Supervised student teaching experience in a secondary school (7-12). Applications due as per posted deadlines in Field Experiences Offices.

***[ED 461V] Student Teaching: Secondary/K-12***

Supervised student teaching in a middle school or a secondary school (9-12). Applications due per posted deadlines in Field Experiences Office. Students must have completed the education core and all major coursework.

***[ED 469] Internship***

Opportunities for on-the-job experience. Appropriate for students with individualized majors. A maximum of 12 internship credits may be applied to the degree.

***[ED 490] Topics in Education***

This is an upper division topical course which may be repeated when the topic changes.

***[ED 497] Independent Study in Education***

Extends study beyond regular course work. May substitute for courses in major with consent of advisor, instructor, and department chairperson. Repeated up to 8 credits.

***[ED 498] The Professional Teacher in the Classroom***

The purpose of this course and 60-hour practicum is to prepare for a successful student teaching experience. More specifically, to accomplish the following. To engage in a meaningful field experience and to process that experience through reflection, analysis, discussion, and writing. To plan, prepare, teach and assess a unit consistent with the edTPA requirements. To deepen one's understanding of the role of a teacher, the types of duties and commitment that classroom teaching entails by leading a focus class all semester. To increase one's awareness and ability to respond to the social, emotional, physical, and psychological needs of students with support from the cooperating teacher, school liaison, and ED 498 instructor. To contribute to a positive learning environment, by encouraging appropriate social interactions and engagement in the learning process. To develop professional consultation skills necessary to initiate and apply appropriate and effective teaming techniques across school and home environments.

***[ED 499] Continuing Studies Workshop***

Continuing Studies Workshop

## Elementary and Early Childhood Education

***[EECE 220] Foundations of Early Childhood & Early Childhood Special Education***

This is an introductory course to the field of the early childhood and early childhood special education. Basic aspects of programming for children from birth to age eight will be studied. Referral and intervention procedures are included as well as various educational and service delivery models. Terminology, key professionals, historical and contemporary issues are included.

***[EECE 275] Effective Methods and Materials in Early Childhood Education***

This course explores developmentally appropriate practices for methods and materials in early childhood curriculum. In this course, students explore child-centered educational practices and early childhood curriculum models. Students will examine learning materials and environments that foster creativity in children's learning and development. Constructivist approaches to hands-on learning of children age 3-8 will be emphasized through analyzing materials and developing creative resources to use in an integrated curriculum.

***[EECE 420] Kindergarten Methods***

This course is organized around the unique developmental characteristics of kindergarten children. The focus includes designing appropriate learning environments, meaningful activities, and integrated curriculum resulting in intentional teaching of the whole child. Emphasis is on appropriate methods and materials, and includes the history of kindergarten and current trends.

***[EECE 426] Primary Methods: Math, Science, Social Studies***

A methodology course for early childhood majors to explore constructivist approaches to hands-on

discovery learning of math, science, and social studies in the primary grades of 1-3.

***[EECE 428] Building Partnerships***

This course will focus on the knowledge, skills, and dispositions necessary for building relationships among teachers, other school professionals, and families in the field of education. The nature of contemporary families and their relationship to schools is studied. Communication strategies, consultation, and cross-cultural sensitivity are all examined. Emphasis is on the teacher's role in building effective relationships with families and other professionals.

***[EECE 430] Infant/Toddler Programs and Practices***

An orientation to planning and implementing programs for children ages birth to three years and their families. Guidelines for supporting development and for providing quality care and education will be examined and applied in a field experience in an infant or toddler program.

***[EECE 433] Preschool Curriculum***

This course examines how to design and implement developmentally appropriate curriculum in programs serving preschool children and their families. The focus is on how to provide children with integrated learning experiences across all developmental domains. Candidates will plan and teach lessons using a variety of strategies and which are grounded in their knowledge of children's developmental, individual, and sociocultural contexts. A practicum experience in a preschool classroom is embedded in the course. (Prerequisites: Admission to Teacher Education through SARTE, completion of all other EC courses prior to EC Senior Block or permission from instructor)

***[EECE 437] Leadership and Administration in Early Childhood Education***

This course focuses on the knowledge, skills, and dispositions necessary to develop leadership and administrative abilities needed in the field of Early Childhood Education. With a focus on both large and small programs, the course will address a variety of facets of administration including enrollment, staffing, supervision, policy development, communication, budgeting and evaluation of early childhood programs. In addition this course includes the examination of leadership, advocacy and contemporary issues within the field, culminating in the writing and presentation of an independent scholarly advocacy paper.

***[EECE 438] Guidance and Play***

This course explores guidance and play with young children. Emphasis on using relationship-based guidance approaches to support the development of self-regulation and positive self-concept. Methods for designing a learning environment and using play to optimize children's leaning will be taught. Guidance strategies and group management approaches are addressed.

***[EECE 469] Early Childhood Internship***

This internship will provide students with the opportunity to apply and demonstrate the knowledge, skills, and dispositions required in the field of early childhood education. Students will work with groups of children in an early childhood setting for up to 12 weeks. Students will complete experiences typical in an early childhood setting, overseen by a faculty supervisor and a site-based early childhood professional.

***[EECE 480E] Student Teaching: Elementary***

Supervised student teaching experience at the elementary level for students receiving a K-12 license only. Enrollment in ED 460S (5 credits) is also required.

***[EECE 481C] Student Teaching: Early Childhood***

Supervised student teaching experience in an elementary school and in an early childhood program. Students will teach at two levels, preschool through third grade.

***[EECE 481E] Student Teaching: Kindergarten/Elementary***

Supervised teaching experience in a kindergarten and/or elementary setting. Retention in Teacher Education Program through SARTE. Satisfactory completion of/or co-enrollment in all prior Early Childhood Education program requirements.

***[EECE 481V] Student Teaching: Elementary/Early Childhood***

Supervised student teaching experience in an elementary school or early education center. Only students who are student teaching in the Student Teaching Abroad Program, or being hosted by MSUM via the Common Market Program, or other approved exchange program, should register for this course.

***[EECE 490] Topics in Elementary and Early Childhood Education***

This is a topics course and may be repeated as topics vary.

## Engineering

***[ENG 469] Internship***

Internship course for the Engineering Physics Degree.

## English

***[ENGL 099] Fundamentals of Writing***

ENGL 099 is an introductory composition course designed to prepare students for the 1A, Written Communication course. Students will study grammar, standard English usage, and rhetorical techniques and strategies. This course emphasizes sentence structure, paragraph development, and organizing and developing the short essay. There is also a strong focus upon reading and analysis of expository essays and other short, mostly non-fiction, works. Students placed into ENGL 099 must attain a passing grade in the course before enrolling in the required 1A, Written Communication course. ENGL 099 carries only credit toward semester load.

***[ENGL 101] English Composition I***

English Composition I is the foundational writing course; special attention is devoted to learning about and using effective writing processes to create logical, engaging, and grammatically and mechanically correct essays suitable for a variety of audiences and purposes. In addition, students will read, analyze, evaluate, synthesize, and integrate appropriately and ethically information and ideas from diverse sources and points of view in their writing. MnTC Goal 1.

***[ENGL 183] Introduction to the American Short Story***

This course introduces students to the American Short Story from the 19th Century to the present. In this course students will have the opportunity to cultivate an appreciation for American literature, and develop the skills of close reading and analysis of selected works. MnTC Goal 6.

***[ENGL 190] Topics in English***

This is a topical course and may be repeated when the topic changes.

***[ENGL 201] English Composition II***

This course focuses on analysis and argumentation, with special attention devoted to learning about and producing effective and persuasive academic essays. Many assignments in this course will involve research and thus will require ethical and correct source citation and documentation. Must have successfully completed ENGL 101 or an acceptable placement score. MnTC Goal 6.

***[ENGL 202] English Composition and Literature***

The First-Year Composition and Literature course stresses expository writing (essays that explain, describe, compare, interpret, analyze, and persuade). In this course students will be asked to read and write with thoughtfulness, skill, and honesty, to think critically, to develop and defend their assertions, and to make use of library and other research sources that require crediting the writing of others in a responsible manner. Students will also read numerous works of poetry and drama and other genres. MnTC Goal 6.

***[ENGL 215] World Games: International Stories about Sports and Politics***

This class uses a variety of literary and cinematic texts to explore how organized sports have been used to help build a national identity, to represent nations in the international sphere, and to express conflicts within and between nations. MnTC Goal 6 and 8.

***[ENGL 234] Mythology***

Introduction to the great myths of Greece and Rome and their influence upon later literature. MnTC Goal 6.

***[ENGL 246] Women in Literature***

A study of the various ways women are depicted in imaginative literature and expository prose. Readings vary. MnTC Goal 6.

***[ENGL 280] World Literature: East and West***

Selected writers or literary traditions in world literature with at least one-half of the course focusing on the non-western literature. MnTC Goal 7.

***[ENGL 282] Literature for Non-Majors***

This course is designed to introduce students to significant English, American, and World literatures from a variety of periods, cultures, and literary or critical traditions. The course will introduce students to the process of situating works within larger cultural, historical, and/or biographical contexts. Students will also receive instruction in the process of critical and interpretive reading and writing. MnTC Goal 6.

***[ENGL 285] Scriptwriting***

An introductory workshop in writing scripts for the stage and the screen. Students will be expected to write a short play and a mini-screenplay of 15-20 pages. Scripts will be work-shopped in class.

***[ENGL 286] Writing for the Workplace***

Study and practice in writing non-academic material linked to the experiences of daily life and to practical career situations.

***[ENGL 288] Introduction to Creative Writing***

Writing practice in two or more of the literary genres, to include poetry and fiction.

***[ENGL 290] Topics in English***

Study of a particular literary topic: special approaches or procedures related to the study of language or literature. The course may be repeated when the topic changes.

***[ENGL 297] English Independent Study***

English Independent Study

***[ENGL 300] Introduction to Literary Studies***

This course introduces students to the basic elements of literary study, including literary analysis, critical interpretation, and theoretical approaches. Students will study a variety of genres and styles from diverse cultural and historical perspectives. Students will also read exemplary pieces of criticism designed to demonstrate the fundamental tenets of a critical approach. Required of all English majors as a prerequisite for all core and major courses.

***[ENGL 301] Medieval British Literature***

Study of selected major authors and works, sometimes in comparison with European counterparts, exclusive of Chaucer.

***[ENGL 302] English Renaissance Literature***

This course will help you to develop the analytical skills required to read, write, speak, and think critically about Renaissance Literature.

***[ENGL 311] Major British Writers I***

Selected major writers through Milton. Some attention to literary criticism and research techniques.

***[ENGL 312] Major British Writers II***

Selected major writers, Enlightenment through Romantics, Victorians and Moderns. Some attention to literary criticism and research techniques.

***[ENGL 314] Shakespeare***

The course emphasizes the skills of close reading as well as understanding Shakespeare's texts within the context of early modern history and culture. In addition to reading a variety of Shakespeare's comedies, tragedies, and romances, students will study recorded performances of select passages and scenes in order to analyze and discuss the many different and differing ways the plays can an have been recreated. Students may repeat the course as the covered play texts change.

***[ENGL 316] Hebrew Bible as Literature***

As an introductory survey of the Hebrew Bible in English, the course will introduce students to the academic study of the Torah, the Prophets, and the Writings as literature. As a writing intensive course, students will research, write, and revise a number of critical/interpretive papers, which foregrounds both writing as a process and writing to learn. MnTC Goal 6.

***[ENGL 317] Personal Lives, National Affairs***

This course will examine a variety of texts that show the intersection of personal lives and national affairs within a range of different cultural and global settings. MnTC Goal 6 and 8.

***[ENGL 318] Christian Bible as Literature***

An introduction to the academic study of the Christian bible as literature, including the gospels, the letters of Paul, and Revelations. Focus on relevant historical, theological, and cultural contexts in the literary study of the texts. MnTC Goal 6.

***[ENGL 320] Romantic and Victorian Literature***

This discussion-based class includes close reading of key Romantic and Victorian texts.

***[ENGL 321] Early American Literature***

Early-American Literature. Study of authors, genres, or literary movements from the beginnings-1830. Subjects and focus will vary as materials address literature from the moment of Anglo-European-Indigenous contact to the constituting of the New Republic.

***[ENGL 322] 19th-Century American Literature***

Studies of authors, genres, or literary movements in nineteenth-century America. Subjects and focus will vary as materials address the literature of nineteenth-century America.

***[ENGL 325] Literature for Young Readers***

Literature for Young Readers is a concentrated reading course designed to impart the knowledge necessary for an appreciation and understanding of children's literature, its historical development, major genres in the field, contemporary issues and debates about children and literature written for them, and the literary terms relevant to the study of literature written for children. In addition to reading classics and the critically acclaimed works of both fiction and nonfiction by modern writers, students will study poetry, folklore, mythology, and examine the relationship between illustration and text (picture books and graphic novels). MnTC Goal 6.

***[ENGL 330] Individual Authors***

Intensive study of one or two significant authors.

***[ENGL 332] Film and the Novel***

Comparative analysis of major novels and their screen adaptations. Focus on aesthetic and interpretative similarities and differences.

***[ENGL 335] World Mythology***

Students will explore mythological systems from around the world focusing upon the historical "interdependence of nations and peoples" and developing the "ability to apply a comparative perspective to the cross-cultural social, economic and political experiences" embodied and explored by these mythologies. MnTC Goal 8.

***[ENGL 340] Genre Studies***

Extensive reading in a particular literary genre--short story, novel, poetry, drama, or epic.

***[ENGL 346] Virtue and Vice in Gothic Storytelling***

A consideration of the ethical implications of the literary constructions of Gothic storytelling and the larger social context that surround it and its place in popular culture. Students will analyze Gothic tales in order to extract their ethical underpinnings. Students will also use their readings to better understand larger ethical belief systems and their place within those. MnTC Goal 9.

***[ENGL 352] Native American Literature***

This course is an introduction to and an exploration of literature written by Native Americans. Texts read in this course are produced by writers of Native American descent. Course presents core texts (fiction, essays, poetry, drama) in the development of literary history of Native American writers with an emphasis on contemporary literature. MnTC Goal 7.

***[ENGL 356] African American Literature***

The focus of the course is the African-American literary tradition. This survey course covers African-American writing from slave narratives to the present. Because of the historical sweep of the course, students will read broadly, rather than intensively--with any one writer. Students will also be instructed in the historical background for the writings.

***[ENGL 357] New Media and the CA/L Classroom***

This hands-on course explores a variety of educational programs that will teach pre-service CA/L teachers how to design and deliver lessons using technology, monitor student work using current computer programs, and interact with students in real time using digital devices. The course also teaches media literacy: evaluating and understanding the complex messages delivered via television, radio, Internet, newspapers, magazines, books, billboards, video games, music, and other forms of media.

***[ENGL 365] Language and Learning***

An interdisciplinary approach to theories of language development, and language as a mode of learning.

***[ENGL 371] Survey of American Literature I***

Historical and critical study of authors, genres, and literary movements from early American writings through American Romanticism. Authors may include, but are not limited to, William Bradford, John Winthrop, Anne Bradstreet, Benjamin Franklin, Phillis Wheatley, Washington Irving, James Fenimore Cooper, Ralph Waldo Emerson, Margaret Fuller, Nathaniel Hawthorne, Henry David Thoreau, Herman Melville, Edgar Allan Poe, Frederick Douglass, Harriet Beecher Stowe, Walt Whitman, and Emily Dickinson.

***[ENGL 372] Survey of American Literature II***

Historical and critical study of authors, genres, and literary movements from 19th Century American Realism, Naturalism, Modernism, Post-Modernism to the present. Authors may include, but are not limited to, Henry James, Kate Chopin, Theodore Dreiser, Edith Wharton, Robert Frost, T.S. Eliot, William Carlos Williams, Wallace Stevens, Willa Cather, Ernest Hemingway, F. Scott Fitzgerald, William Faulkner, W.E.B. DuBois, Langston Hughes, Zora Neale Hurston, Ralph Ellison, August Wilson, Toni Morrison, Maxine Hong Kingston, and Louise Erdrich.

***[ENGL 374] Theory & Methods: Writing Grades 5-12***

Principles of clear and effective writing, elements of the writing process, research and methods in teaching, responding to, and evaluating writing.

***[ENGL 380] World Literature***

Study of selected world masterpieces grouped by theme or genre. MnTC Goal 8.

***[ENGL 387] Technical Report Writing***

Expository writing planned for a specialized audience and dealing with subjects in a student's

major, workplace, volunteer experience, or other organizational experience. Restricted to students at the junior or senior level.

***[ENGL 388] Creative Writing***

The writing of poetry, short fiction, non-fiction, plays, or screenplays. Partly a dialogue on contemporary writing, but mainly workshop. May be repeated up to three times for credit if the genre changes.

***[ENGL 390] Topics in English***

Study of a particular literary genre, topic, or theme.

***[ENGL 402] Introduction to Publishing***

This course familiarizes students with the history and current trends in small press publishing. Course topics include acquisitions, editing, marketing, publicity, finances, copyright, electronic publishing, literary magazines, and children's & YA publishing.

***[ENGL 407] Big City, Big Impact***

This course uses a variety of texts for an exploration of the environmental and social impacts of big city life, as shown by various writers. MnTC Goal 6 and 10.

***[ENGL 410] Studies in British Literature***

Study of selected topics, movements, or genres.

***[ENGL 425] Grant Proposal Writing***

Students research significant problems or opportunities in their major fields and research applicable sources of private and/or public funding. In response to the problems or opportunities they select, students will research, design, and write grant proposals for cost-effective programs, including program-evaluation plans. ENGL 387 - Technical Report Writing is strongly recommended before you take this class.

***[ENGL 430] Capstone: Individual Authors***

Intensive study of one or two significant authors. This is a designated Writing Intensive Course choice for English Majors. ENGL 430 has the same content as ENGL 330: Individual Authors with additional research component that includes longer essays and with documentation from secondary, scholarly articles as supporting evidence for thesis.

***[ENGL 435] Nature Writing/Ecocriticism***

Ecocriticism is a fairly recent cultural and literary development, the term coined in the late 1970s. This course introduces students to representative ecocritical texts that study the relationship between humans and the environment. Significant attention will be devoted to issues of sustainability, eco-literacy, and the efficacy of literary expressions of environmental value. MnTC Goal 10.

***[ENGL 457] Literary Editing: Red Weather***

This is a production-centered, hands-on class. Students will be responsible for producing a complete issue of Red Weather, MSUM's literary magazine, from screening and selecting manuscripts, interacting with the authors whose work is chosen, to designing and promoting the finished magazine.

***[ENGL 462] Practicum in Publishing***

This course is designed as a practical, hands-on experience for students to learn about the working functions of small press ventures such as the production of a literary magazine and/or a chapbook. This course is delivered through lectures, demonstrations, and supervised group activities. For example, students participate on editorial teams, curate illustrations, design book covers, organize reading tours, and develop marketing plans. All student projects are presented in class to demonstrate the process of producing a literary magazine and/or chapbook. Same as COMM 462.

***[ENGL 463] History of the English Language***

A survey of the early history of the English language, its sounds and its grammar, emphasizing Old English and its literature or Middle English and its literature.

***[ENGL 469] Internship***

Supervised employment requiring substantial writing practice in government or private agency. Repeatable up to a total of 12 credits. All credits apply toward graduation, but only three may count toward a major or writing minor in English. Six credits accepted toward the B.A., Writing Emphasis.

***[ENGL 484] Theory & Methods: CA/L Grades 5-8***

Review of current trends in communication arts/literature education in middle school and junior high (grades 5-8). The course teaches approaches and techniques for teaching and assessing literacy and examining adolescent/young adult literature and media.

***[ENGL 487] Advanced Technical Report Writing***

Process-oriented writing class that emphasizes theoretical aspects of audience analysis, principles of document organization and design, and technical editing. Students will also learn how to design effective document supplements and visuals. Students will also learn about and use various research techniques. Course is conducted through lectures, group and individual discussions, collaborative writing, and hands-on work in the library and computer labs. ENGL 487 culminates in a professional website and an online portfolio.

***[ENGL 488] Capstone: Advanced Creative Writing***

Advanced work in writing of poetry, short fiction, non-fiction, plays or screenplays offered once a year in spring as a capstone course choice for English majors. Students may repeat course once with permission from instructor. This is a designated writing intensive course choice for English majors.

***[ENGL 490] Topics in English***

This is an upper division topical course and may be repeated when the topic changes.

***[ENGL 491] Theory & Methods: CA/L Grades 9-12***

Current practices and trends in teaching and assessing communication arts/literature in grades 9-12.

***[ENGL 493] Grammars of English***

A survey of the history of language study, of the history of the English language, and of the various kinds of grammars: traditional, structural, and transformational.

***[ENGL 495] Advanced Study in Language or Literature***

Study of selected topics, individual authors, genres or movements in linguistics or in American, British or world literature. The course may be offered as a seminar, as an independent study, or as an adjunct to another class taught by the same instructor. Repeatable when subject matter varies.

***[ENGL 497] Independent Study in English***

The consideration of various problems in literature or language agreed upon by the instructor and the student.

## Entrepreneurship

***[ENTR 229] Start Your Own Business***

This course is designed to provide students with hands-on experience and up-to-date information on how to start and set up their own business. It is co-taught by a team of experts and developed in cooperation with local business associations, the course will focus on the accounting, financial, legal, marketing and planning areas of setting up and running a start-up business. Same as MGMT 229.

***[ENTR 230] Entrepreneurial Finance***

This course is intended for students who wish to enhance their skills and knowledge in those areas of business that lead to successful entrepreneurship and small business management. The focus will be on those financial issues and decisions of particular concern to sole proprietors, partnerships, family-owned business and small early-stage corporations. This will include the financial aspects of the relationship between the firm and its owners.

***[ENTR 231] Entrepreneurial Leadership and Organization***

This course will define and develop leadership essentials for entrepreneurs and identify the best practices for building and managing an effective team for an entrepreneurial venture. In the process of completing this course, you will learn first and foremost about yourself as an entrepreneurial leader. We will then study practical actions for bringing others onto your team and how to inspire and energize the entire team to accomplish your vision/mission. We will study real world leaders, their mistakes and successes, and the best practices found in successful organizations in the 21st century.

***[ENTR 232] Entrepreneurial Marketing***

This course provides an opportunity to develop conceptual knowledge of important entrepreneurial concepts. The focus will be on the processes involved in marketing of goods and services, including the marketing terminology, the marketing mix, consumerism, and marketing segmentation. The concept of market and marketing research and the impacts of competitive structures on marketing decision-making will be covered.

***[ENTR 233] Case Studies in Social Innovation***

This course introduces students to the strategies and processes of social innovation and social change. Students will examine social innovation through case studies, best practice analyses, and relevant readings.

***[ENTR 309] Building a Workable Business Plan***

This course provides an opportunity for the students to write a workable business plan. Students will learn the typical process of starting a new venture. The course will focus on how to turn an idea to an opportunity, and eventually to a business. Major points will include how to create, shape, recognize and seize a business opportunity, as well as the specifics of writing a business plan.

## Entertainment Industries and Technology

***[EIT 160] Introduction to the Entertainment Industry***

An overview of the entertainment industry. Students will learn to identify common core technologies and business practices that cross over all areas in entertainment.

***[EIT 161] Introduction to Copyright and Trademark Law***

This course will examine the principal areas of federal copyright and trademark law as they specifically relate to the entertainment industry. Main areas of study will include: music, film, theater, television, and other multi-media industries. Related legal areas such as defamation, rights of privacy and publicity, and methodology which will center around statutory and basic entertainment case law analysis will also be discussed.

***[EIT 180] Critical Listening and Sound Analysis I***

An introduction to critical listening for sound production.

***[EIT 181] Audio Technology Theory***

An introductory course in audio terminology and theory. Students will be introduced to standard audio production gear (EQ, Compression, Effects) and its operation. Principles will be presented through readings, recording, and lectures. Hands-on sessions will provide opportunities for basic skills acquisition. Students must attend scheduled events on some evenings and weekends as part of this course.

***[EIT 182] Introduction to Audio Recording***

An introductory course in audio recording. Students will be introduced to standard audio recording processes within different areas of the entertainment industry.

***[EIT 261] Legal and Ethical Issues in Entertainment***

This course examines legal and ethical issues in the entertainment field. Intellectual property areas studied include: music, film, theatre, media arts, and other entertainment sectors pertaining to consumers as well as those who participate in the creation of such media, including: digital/copyright

issues; publishing, licensing and distribution; the role of attorneys, managers, agents, and unions; ethical issues in the manufacture of "talent," cultural appropriation and exploitation, and popular entertainment issues of censorship, race, and misogyny. MnTC Goal 9.

***[EIT 280] Critical Listening and Sound Analysis II***

Students will learn to identify specific recording techniques and their role in a final production. Students will be required to devote significant time to assigned listening of recordings, audio/video works and live performances.

***[EIT 281] Studio and Live Productions***

This course discusses proper recording techniques for live and studio performances. Principles will be presented through readings, recording, lectures and hands-on training.

***[EIT 361] Entertainment Activity***

Individual activity based on students chosen entertainment emphasis. Most of the class will involve hands on production work. Class participants will further hone their learned skills in a professional working environment under the supervision of an instructor. Students must be prepared to work at nights, weekends and off campus for some events. Must be repeated four (4) times for credit.

***[EIT 362] Artist and Venue Management***

This course will cover a variety of topics related to managing artists and venues of varying types and sizes. Students will need to be available to tour certain facilities on certain evenings or weekends as part of this course.

***[EIT 381] Studio Projects***

A course that teaches equipment and techniques of studio audio production including, multi-track recording, microphone techniques, mixing and use of effects devices.

***[EIT 382] Live Sound Reinforcement and Recording***

Course focuses on live sound reinforcement/recording. Students will gain experience in the set-up and operation of sound reinforcement systems and audio processing devices. Live microphone techniques for reinforcement and recording will be studied. Additionally, students will learn necessary organizational skills required to successfully oversee an event. Students must attend certain events on evenings and weekends.

***[EIT 383] Sound for Film and Video***

Course designed to explore location sound basics, and producing audio for film and video. Topics include: Basics of audio and sound systems, digital audio formats, MIDI, hard-disk recording, sequencing, editing, and mastering. Sound design and multi-channel audio will also be discussed.

***[EIT 390] Topics in Entertainment Industries & Technology***

Topics in Entertainment Industries & Technology. May be repeated as course topic changes.

***[EIT 461] Entertainment Entrepreneurship***

Seminar covering broad range of current topics related to the entertainment industry.

***[EIT 463] Entertainment Case Law***

This course will closely and critically analyze the major cases that define various concepts of the entertainment industry. This will include seminal cases in the area of Fair Use, Co-Authorship, Royalties, Film Distribution and other essential entertainment sector aspects. Methodology will be via readings and briefing of US case law. We will also spend time explaining how the court system of the United States works.

***[EIT 469] Internship***

Internship in an entertainment-related field. Students wishing to enroll must get approval from their academic advisor. A maximum of 3 internship credits may be applied to the degree.

***[EIT 481] Advance Studio Projects***

Individual projects in studio production. Must be repeated for credit for EIT major.

***[EIT 490] Topics in Entertainment Industries & Technology***

Topics in EIT

***[EIT 492] Professional Seminar***

Capstone course in Entertainment Industries and Technology. Students will present written research within their chosen sector of the entertainment industry, and distill their findings into a professional portfolio.

***[EIT 497] Independent Study***

EIT Independent Study

## Exercise Science

***[EXS 190] Topics in Exercise Science***

This is a topical course in fundamental activities. The course may be repeated if content varies.

***[EXS 202] Strength and Conditioning Exercise Techniques***

The purpose of this course is to understand the techniques (lifting, breathing, spotting) involved in properly performing strength and conditioning exercises.

***[EXS 302] Strength and Conditioning Program Design***

The purpose of this course is to design strength and conditioning training programs that are safe, effective, and maximize athletic performance.

***[EXS 310] Sport and Play in the United States***

This course is an investigation of sport and play in American society. It involves the application of concepts from various disciplines to sport and play and the development of an understanding of the functions that sport and play serve in the United States.

***[EXS 311] Motor Learning***

This course is designed to expose students to different learning theories and how to incorporate them into teaching motor skills. Areas of study include theoretical and applied knowledge of the individual, instructional and environmental variables relevant to teaching, learning and performance of various motor activities.

***[EXS 320] Anatomical Kinesiology***

A study of the applied human anatomy with a focus on the musculoskeletal systems. The student will learn basic skeletal structure, make-up and functional capabilities at the various joints, the role of the musculature in human movement and apply these concepts to real life situations.

***[EXS 321] Human Physiology***

This course is designed to study the physiology of the different organ systems of the human body. The course will stress the application of physiological principles related to health and disease.

***[EXS 364] Group Exercise Leadership***

This class will prepare students to teach all kinds of group exercise classes. Group exercise instructors conduct group exercise sessions that include aerobic exercise, stretching and muscle conditioning.

***[EXS 365] Exercise Program Design***

This course prepares students to meet the competencies established by the American College of Sports Medicine for a health fitness instructor.

***[EXS 402] Strength and Conditioning Practicum***

This course is designed to provide students the opportunity to apply the principles of strength and conditioning training under the supervision of strength and conditioning specialists.

***[EXS 420] Biomechanics***

This course is designed to develop an understanding of the mechanical principles that govern the effectiveness with which physical education and sport skills are performed. The

prerequisite can be waived with the consent of the instructor.

***[EXS 421] Physiology of Exercise***

A study of the function of those body systems most directly affected by and involved in exercise. Physiological consideration in human movement such as thermal regulation, performance at altitude and underwater, drugs and other ergogenic aids, and designing of specialized training programs will be pursued.

***[EXS 469] Exercise Science Internship***

Designed to give students an opportunity to gain supervised clinical experiences working with a variety of state and local agencies. A maximum of 12 internship credits may be applied to the degree.

***[EXS 473] Exercise Testing and Interpretation***

This course provides instruction in the guidelines and principles of advanced exercise testing and ECG interpretation.

## Exchange

***[EXCH 301] National Student Exchange I***

National Student Exchange

***[EXCH 302] National Student Exchange II***

National Student Exchange II

***[EXCH 320] Portsmouth Exchange I***

This is the first semester of a study abroad program at the University of Portsmouth in Portsmouth, England. Study is available in a limited number of disciplines.

***[EXCH 321] Portsmouth Exchange II***

This is the second semester of a study abroad program at the University of Portsmouth in Portsmouth, England. Students may study in a limited number of disciplines.

***[EXCH 323] International Exchange Program I***

International Exchange Program I

***[EXCH 324] International Exchange Program II***

International Exchange Program II

***[EXCH 326] Keele University Exchange I***

Keele University Exchange I

***[EXCH 327] Keele University Exchange II***

Keele University Exchange II

***[EXCH 328] Independent Consortium Agreement***

Independent Consortium Agreement

***[EXCH 329] University of Lincoln Exchange I***

This course is the first semester of an exchange between MSU and the University of Lincoln in the United Kingdom. Students may study in a limited number of disciplines.

***[EXCH 330] University of Lincoln Exchange II***

This course is the second semester of an exchange between MSU and the University of Lincoln in the United Kingdom. Students may study in a limited number of disciplines.

***[EXCH 341] Worldwide Institutions I***

This is a formal exchange course whereby MSUM students attend Worldwide Institutions during fall semester.

***[EXCH 342] Worldwide Institutions II***

This is a formal exchange course whereby MSUM students attend Worldwide Institutions during the spring semester.

***[EXCH 343] Worldwide Institutions III***

This is a formal exchange course whereby MSUM students attend Worldwide Institutions during the summer semester.

***[EXCH 361] Kanda University Exchange I***

This is the first semester of an exchange program which allows MSUM students to attend Kanda University in Japan.

***[EXCH 362] Kanda University Exchange II***

This is the second semester of an exchange program that allows MSUM students to attend Kanda University in Japan.

***[EXCH 365] University of Sunshine Coast, Australia Exchange***

This is a formal exchange course whereby MSUM students attend the University of Sunshine Coast in Australia during the fall semester.

***[EXCH 366] University of Sunshine Coast, Australia Exchange***

This is a formal exchange whereby MSUM students attend classes at the University of Sunshine Coast in Australia during the spring semester.

***[EXCH 367] Kanto Gakuin Japan Exchange I***

This is a formal exchange course whereby MSUM students attend the Kanto Gakuin University in Japan during the fall semester.

***[EXCH 368] Kanto Gakuin Japan Exchange II***

This is a formal exchange course whereby MSUM students attend the Kanto Gakuin University in Japan during the spring semester.

***[EXCH 374] Tsuda Japan University Exchange I***

This is a formal exchange course whereby MSUM students attend the University in Tsuda Japan during the fall semester.

***[EXCH 375] Tsuda Japan University Exchange II***

This is a formal exchange course whereby MSUM students attend the University in Tsuda Japan during the spring semester.

***[EXCH 376] Agder Norway University Exchange I***

This is a formal exchange course whereby MSUM students attend the University in Agder Norway during the fall semester.

***[EXCH 377] Agder Norway University Exchange II***

This is a formal exchange course whereby MSUM students attend the University in Agder Norway during the spring semester.

***[EXCH 378] Chung-Ang South Korea University Exchange I***

This is a formal exchange course whereby MSUM students attend the University in Chung-Ang South Korea during the fall semester.

***[EXCH 379] Chung-Ang South Korea University Exchange II***

This is a formal exchange course whereby MSUM students attend the University in Chung-Ang South Korea during the spring semester.

## Film Studies

***[FILM 101A] Practicum***

Practical experience in a performance activity in Film.

***[FILM 175] Video Production***

Theory of and practical experience with video production techniques. Electronic Field Production and post-production techniques will be stressed with doing out of class projects. This course is designed to develop a thorough understanding of the technical equipment needed to produce video projects. This includes detailed training in the operation of video editing software, title graphics used in postproduction software, video camera operation, and camera support equipment, and the tools of video lighting. Course sessions will focus on the cinematic expression and the development of meaning through the use of mise-en-scène, lighting, cinematography, sound design, and editing.

***[FILM 180] Understanding Movies***

This liberal studies film course is designed to introduce students to the vocabulary and artistic elements of cinema. It will focus on creating an understanding and appreciation for the basics of cinematography, film sound, acting, screenwriting, directing, and narrative frameworks utilized to

create film. Historical and contemporary films will be viewed as text material for analysis. MnTC Goal 6.

***[FILM 190] Topics in Film***

This is a lower division topics course and may be repeated when the topic changes.

***[FILM 232] Principles of Make-up for Stage and Film***

Techniques and styles of make-up used in stage and film productions. Same as THTR 232.

***[FILM 265] 16mm Production***

Theory and practice for the pre- professional filmmaker. Students learn to operate basic motion picture equipment. Projects include planning, shooting, and editing short films. Students will develop proficiency in the operation of film equipment needed to produce beginning level 16mm black and white reversal film projects. This includes 16mm film cameras, lighting, sound, and editing equipment.

***[FILM 275] Film Appreciation***

This course is a study of the art of motion pictures through an examination of major films, animations, and other forms of moving images. It examines basic elements of all motion pictures - mise-en-scène, cinematography, editing, and sound. Innovative films, animations, and moving images are viewed, discussed, and evaluated. In addition, students will learn appropriate terminologies and basic critical approaches and apply them to discussing, creating, and writing about a variety of moving images. MnTC Goal 6.

***[FILM 285] History of Motion Pictures***

A chronological approach to the development of motion pictures. Special attention will be paid to the aesthetic, political, cultural, economic, and technological contexts in which American and other international cinemas developed. Weekly screening/discussion will expose students to groundbreaking motion pictures in the United States and internationally. Discussions will provide the opportunity to learn different historiographic approaches to writing motion picture history. MnTC Goal 8.

***[FILM 290] Topics in Film***

This is a lower division topical course and may be repeated when the topic changes.

***[FILM 302] Practicum***

Practical experience in a performance activity in Film.

***[FILM 365] International Cinemas***

A study of major world cinemas, including influential filmmakers, screen personalities, genres, and conventions. The course explores interrelationship of national film movements and how they impact world cinema. Students engage with representative work from European, Eastern, and Third World cinemas to understand alternative modes of practices to American cinema. Weekly screenings of important films from diverse regions of the world cinema are followed by discussions and critically evaluated as students develop key writing and independent research skills.

***[FILM 371] History of LGBT Representation in Film***

This course will be an in depth examination of the cinematic representation of and filmic production by Lesbians, Gay Men, Bisexuals, and Transgender people. Films and videos from a wide spectrum of genres will be screened to substantiate both the differences and the commonalities surrounding this subject's cinematic treatment. This course will also cover certain historical and/or political events influencing queer culture, filmmakers, and their intersection. Key questions will be raised, including: How have non-dominant sexualities been portrayed in the history of cinema? Is there a "queer" way of viewing film? What role does authorship play? How, historically and in the present, have queer identities been censored and how have they eluded censorship? How have critical re-readings and camp been used to define non-dominant spectatorship? Is gayness situational, or advised by its location in other

identities such as race, class, age/era, culture? MnTC Goal 7.

***[FILM 372] Editing Techniques***

This course will focus on the post-production phase of filmmaking with emphasis placed on editing theories and techniques. Projects will provide hands-on editing experience designed to advance the technical and conceptual skills necessary to construct story, emotion, and rhythm through moving images and sound. Using many styles of filmmaking and time-based media, lectures and demonstrations will examine how post-production influences cinematic expression, and how editing creates greater meaning for audiences cognitively and emotionally.

***[FILM 378] Techniques of Producing***

This course will survey the craft areas of Producing, Production Management, and Production Coordination. Students will learn practical skills as well as larger concepts behind this key area of motion picture creation.

***[FILM 383] Adaptations to Film***

This course is an exploration of the complex intersection between film and a variety of other literary and media texts. Selected poems, novels, short stories, plays, video games, news articles, etc., are analyzed in relation to filmic and animation versions of the same works in order to gain an understanding of the possibilities - and problems - involved in the adaptation of other texts to moving images. Students will also develop screenwriting skills in their own adaptations of other texts to moving images.

***[FILM 384] Techniques of Film Directing***

Theory and practice of developing artistic and technical skills in directing motion pictures. Special emphasis given to the importance of the director/actor relationship. Major filmmaking projects include scene study work with crews and actors.

***[FILM 386] Film and Media Arts Genres***

Intensive study of a particular film or media arts genre. Analysis and discussion of specific generic formal and stylistic conventions, historical shifts within the genre, and the genre's theoretical foundations. Potential genres include: Science Fiction, American Screen Comedy, Film Noir, Horror Film, Westerns, Animation, Melodrama, etc. May be repeated when genre studied is different.

***[FILM 387] Authorship in Film and Media Arts***

Detailed study of the work of selected moving image authors including directors, animators, production designers, cinematographers, editors, sound designers, etc. The course analyzes and evaluates a film and media artist's historical context, thematic preoccupations, creative content, and authorial style. The course may stress the work of a single moving image artist or compare elements of two or more artists. Potential course topics include: Alfred Hitchcock, John Ford, Frank Capra, Howard Hawks, Steven Spielberg, Woody Allen, etc.

***[FILM 388] Research Methods in Film & Media Arts***

This course introduces and explores methodological approaches to research in film and media arts. Students are exposed to film and media arts research skills through readings, hands-on instruction, and guest presentations. It introduces students to ways of searching for sources relevant to a variety of academic tasks. It introduces how to document in the MLA style. It assists students in developing independent research proposals and appropriate methodologies for their projects, as well as key ethical issues that could arise.

***[FILM 390] Topics in Film***

This is an upper division topical course and may be repeated when the topic changes.

***[FILM 416] Special Projects in Film***

Advanced individualized creative or investigative work in a particular phase of film study. May be taken more than once if content is substantially different.

***[FILM 460] Curating and Programming Media Arts***

This service-learning course is a study of curating as the treatment of materials from discovery, acquisition, through interpretation, reformatting, programming, to use, re-use, distribution, exploitation, translation, and screening. The course emphasizes practices of film and media arts exhibition in museums, archives, festivals, and other platforms. It investigates the goals of programming, audiences, as well as the curatorial and programming practices of media arts content. The course will utilize local practitioners as guest presenters from whom students will gain hands-on insights into a variety of practices. Those skills will be utilized to develop group curatorial/programming projects.

***[FILM 465] Advanced 16mm Production***

This course is an advanced production course, which provides an introduction to and foundation in techniques of double system synchronous sound 16mm filmmaking. The course emphasizes the development of sophisticated creative methods in the area of visual style and storytelling. Through readings, lectures, screenings, demonstrations, and crew-based film projects, students will gain hands-on experience unique to sync sound 16mm filmmaking. Special focus is placed on sound recording methods, black and white cinematography, and advanced lighting techniques. Students will be introduced to 16mm sync sound filmmaking equipment, including specialized sync cameras, camera support, dollies, and other tools of film lighting and grip training.

***[FILM 469] Internship***

A supervised, practical experience in film studies. A maximum of 12 internship credits may be applied to the degree.

***[FILM 470] Undergraduate Teaching Assistant***

Students will serve as a teaching assistant for select Film Studies courses under the guidance of a faculty mentor. May be repeated up to three times for credit. Minimum GPA of 3.0 in major coursework is required.

***[FILM 472] Community Video Project***

The Community Video Project offers video production experience specifically focused on producing work for a community client, using advanced technical and coordination skills. This project will represent a collaboration between the members of the student group producing the project, and also a collaboration between the student group and the community client.

***[FILM 480] Critical Approaches to Film and Media Arts***

Critical Approaches to Film and Media Arts prepares students to analyze films, animation, and other moving images with a greater understanding of the major issues and debates in moving image criticism of the last 100 years. The course introduces students to classical and contemporary film and media theories. Emphasis is placed on drafting, reviewing, and analytical writing about moving images. Students produce media arts reviews, polished academic writing, and application of critical concepts to creative production.

***[FILM 490] Topics in Film***

This is an upper division topical course and may be repeated when the topic changes.

***[FILM 492A] Capstone Research***

A preparatory practicum class involved in research and pre-production activities designed to facilitate the senior Capstone Project class (FILM 492B).

***[FILM 492B] Capstone Project***

Capstone course for Film Production and Film Studies majors. Projects, as proposed and approved in FILM 492A, will be completed and presented publicly. The course will also emphasize professional skills, collaboration, and preparation for students' career goals. A grade of "C" or higher is required for graduation.

***[FILM 494] Undergraduate Research in Film***

Guided research designed to increase professionalism of the student's creative work in all aspects of design production.

***[FILM 497] Independent Study in Film***

Independent Study in Film

## Finance

***[FINC 325] Financial Institutions and Markets***

This course introduces an understanding of interest rates and their relationship to the value of bonds and stocks. The course will provide an overview of the bond and stock markets; the reasons they exist, their role and functions and how they operate. The course will provide a synopsis of financial institutions (banks, savings and loans, and credit unions) and non-financial institutions (stock brokerage firms, insurance companies, and mutual funds).

***[FINC 340] Financial Management***

Students are introduced to the principles of finance. Basic issues of business finance including investment, financing and dividend policies are explored. Students learn about the functioning and regulations of financial markets. Students must have junior standing.

***[FINC 345] Personal Finance***

The primary aim of this course is to help you plan for a successful financial future. This course provides a comprehensive, user-friendly treatment of financial planning--including personal financial statements and budgets, cash management, consumer credit, consumer durables, housing, insurance, investments, retirement and estate planning -- developing the understanding and appreciation necessary to be successful in today's financially complex world.

***[FINC 352] Principles of Insurance and Risk Management***

This course provides a study of the basic concepts of business and personal risks from the standpoint of creation, identification, reduction, elimination, and evaluation of risks. The use of insurance in meeting problems of risk is also covered in this course.

***[FINC 360] Principles of Investment***

This course provides a basic understanding of the functioning of securities markets, individual investment alternatives, issues involved in investment theory and practice, and investment analysis and valuation. Emphasis is placed on the understanding of the background terminology and risk/return characteristics of different investment opportunities.

***[FINC 425] Bank Management I***

This course applies traditional finance concepts to the management of commercial banks. It emphasizes the structure of the financial services industry and specifically the banking sector, financial analysis, decision-making, and specific problem-solving techniques. The course provides a basic understanding of the issues confronting bank managers today, fundamental financial models, and the risk/return impacts of various credit, investment, operational, and funding decisions. The course focuses on the drivers of bank financial performance and the principal risk influences bank executives face.

***[FINC 426] Bank Management II***

This course extends the content of Bank Management FINC 425 and the management of commercial banks to a more advanced level. The course continues the concepts introduced and developed in FINC 425 associated with the analysis and bank performance drivers, balance sheet structure, and risk management/mitigation. It advances critical concepts that represent primary dimensions within most commercial banks within the present operating environment with more in depth and engaged analyses of loan (credit) underwriting (commercial and commercial real estate), secondary market residential mortgage lending, the role (structure, development, and analysis) of mortgage-backed securities in modern bank investment portfolios, and interest rate risk modeling. Students will participate in a mock loan

committee as presenters of a loan proposal. The course introduces the impact of decision making on bank performance via a dynamic bank performance simulation exercise employed throughout the duration of the course, aimed to challenge the student to engage strategies in pursuit of growth, market position, and quite essentially, long-term profitability. Asset-liability management concepts are investigated as the determinants of risk and reward. The course focuses on the drivers of bank financial performance and the principal risk influences bank executives face every day within a setting where students realize the consequences of decisions.

***[FINC 441] Advanced Financial Management***

This course provides knowledge of advanced issues in financial management. Current issues in financial management are explored.

***[FINC 445] International Financial Management***

International Financial Management is the sub-area of finance that studies the international investment decisions concerning real and financial assets. This course is intended for students who wish to learn the concepts and theories of modern multinational financial management. International Financial Management gives participants a solid theoretical and practical background that serves to better understand (1) the determinants of currency exchange rates, (2) the importance of risk management in a Multinational Corporation (MNC); (2) the particularities of corporate finance, and corporate governance in a global context.

***[FINC 446] Financial Decision Making***

This course moves away from textbooks to learning the skills and issues involved in the financial management of a corporation through academic and professional articles. Several important concepts of financial management are applied to real-life situations through the use of case problems. These cases provide insights into some of the problems a firm faces and how they can be addressed.

***[FINC 450] Entrepreneurial Finance***

Entrepreneurs like the adrenaline generated by managing a new business opportunity. Examples of new business opportunities are (1) the development of a new product or service, (2) the management of a franchise, and (3) the optimization of an existing company with problems. However, one of the areas where entrepreneurs have fewer skills is financial management which includes basic accounting, fund raising and cash management. Entrepreneurial Finance is a comprehensive course that not only reviews finance specific concepts but also introduces new financial concepts that are important to the entrepreneur, including how to take into consideration in the valuation process the managerial flexibility that comes with the incremental uncertainty the entrepreneur faces.

***[FINC 460] Portfolio Analysis and Management***

This course involves analysis of techniques used in combining securities into portfolios. Students will examine various classes of securities and investments meeting a proper balance for investor needs.

***[FINC 462] Financial Analysis and Valuation***

This course provides in-depth knowledge of valuation models and their practical application. The primary focus is equity valuation techniques. This includes data gathering and analysis of financial statements, analyzing cash flow, estimating the cost of capital, and forecasting cash flows. Discounted cash flow and relative valuation models are utilized in case studies to practice equity valuation. Additional topics covered include an introduction to fixed income valuation, alternative investments, and the ethics and professional standards related to the practice of valuation.

***[FINC 463] Futures and Options***

Advanced study of the pricing and use of derivative market instruments, current topics and issues.

***[FINC 465] Portfolio Management Practicum***

This course provides students an opportunity to gain practical investment management experience with an actual investment portfolio. Students will invest and monitor funds available through the Dragon Investment Fund, a donor sponsored fund for this purpose. As essential component of preparation for management of investment analysis and selection, and the management of the Dragon Investment Fund, students will be exposed to more advanced concepts in security and portfolio risk dynamics, risky asset combinations and portfolio optimization, investment security analysis and valuation techniques, and portfolio performance measurement.

***[FINC 469] Internship***

A supervised, practical experience in finance. A maximum of 12 internship credits may be applied to the degree. Prerequisites: FINC 340 plus 6 credits in Finance beyond FINC 340.

***[FINC 480] Portfolio Management Practicum***

This course is designed to give students an opportunity to gain practical investment management experience. Students will invest and monitor funds available through the Dragon Investment Fund, a donor sponsored fund for this purpose. May be repeated up to 3 credits.

***[FINC 490] Topics in Finance***

This is a senior level topics course and may be repeated as topic varies.

***[FINC 497] Independent Study***

Individual inquiry into an aspect of finance not covered in the regular curriculum.

## First Year Experience

***[FYE 101] First Year Experience***

This course is an introduction to the demands and challenges of higher education. The course is designed to strengthen student success in college through personal and academic skills development.

## Geoscience

***[GEOS 102] Geology in the National Parks***

Study of the processes that have shaped the Earth, including earthquakes, volcanoes, erosion, glaciation, sedimentation, structural deformation; and the geologic history of North America, including mountain building and ocean advances and retreats. Focus on the geological features seen in our National Parks. MnTC Goal 3.

***[GEOS 103] The Real Dragons: Dinosaurs on a Dynamic Planet***

The Dinosaurs were one of the most successful groups of terrestrial organisms that have ever lived on our planet. During their 140 million-year reign, this group was able to adapt to changing environments on an ever-changing planet. The age of the dinosaurs (the Mesozoic) spanned three distinctly different periods of earth history. Different groups of dinosaurs existed during these periods of dynamic ecosystem change. The final group of dinosaurs that disappeared 65 million years ago were finally faced with environmental change at a rate that they could no longer cope with. This course will examine the Age of the Dinosaurs, and review and discuss the basic principles and techniques paleontologists use to reconstruct the biology and ecology of these fossil organisms, and to interpret the environments from the rocks they occur in. MnTC Goal 3L.

***[GEOS 109] Processes and History of a Dynamic Planet***

This course provides an introduction to physical and historical geology, including the nature of the earth, its description and the processes that govern its formation and change; rocks and minerals that make up the earth, their characteristics and how they form, and how those rocks reveal Earth's past. The course addresses aspects of mineralogy, petrology, structural geology, plate tectonics, volcanology, seismology, stratigraphy, weathering and erosion, paleontology, paleogeographic reconstruction, and geochemistry. MnTC Goal 3.

***[GEOS 109L] Introductory Geology Lab***

This lab complements and expands on the principles in Geos 109 by engaging students in practices of recognizing and interpreting features in rocks and minerals, using petrological and stratigraphic information to reconstruct Earth's past, using experimental and field evidence to constrain and understand geological processes, interpreting geological features in map and cross-sectional view, insight into how to use geochemical data, and problem-solving for how to remediate environmental problems. MnTC Goal 3L

***[GEOS 110] Water, Land, and People: An Introduction to Physical Geography***

This course addresses physical geography, some geology, and basic interactions between humans and their environment. Specific topics include landscapes and landscape formation, soils and ecosystems, surface and groundwater processes, weather and climate, natural hazards, and natural resources. MNTC goal 3

***[GEOS 110L] Water, Land, and People: an Introduction to Physical Geography (Lab)***

This Lab course complements the lecture section of this course and fulfills the lab component for the LASC 3L designation. The course applies lab exercises to addresses physical geography, some aspects of geology, and the basic interactions between humans and their environment. Specific topics include landscapes and landscape formation, soils and ecosystems, surface and groundwater processes, weather and climate, natural hazards, and natural resources. The Lab objectives of this course include a hands on development of students' framework of basic concepts and theories in physical geography and geology, and having students develop their own methodology for analyzing the spatial patterns of the natural world based on the concepts learned. Geography is a discipline of synthesis, and this course will include traditions and theories of geology, anthropology, archaeology, and bioscience with student evaluating societal questions from these broad perspectives. MnTC Goal 3L

***[GEOS 111] Cultures and Regions***

This course will introduce the foundations for studying the development of cultures and cultural diversity in the world, introduce the foundation concepts of Regional Geography, and study the interrelation between cultures, regions, their environments, and their activities. MnTC Goal 7.

***[GEOS 115] Physical Geology***

The nature of the earth, its description and the processes that govern its formation and change; including rocks and minerals that make up the earth, their characteristics and how they form; volcanic eruptions; earthquakes; weathering and the transport and deposition of sediment; mineral and energy resources; and the nature of other planets in our solar system. Must also register for GEOS 115L. MnTC Goal 3.

***[GEOS 115L] Physical Geology Lab***

This lab must be taken concurrently with GEOS 115 Physical Geology.

***[GEOS 116] Historical Geology***

Earth history from its beginning to present, including formation of continents, origin and destruction of mountain ranges, advances and retreats of oceans, processes that formed layers of rock and the principles by which they are "read", and what fossils tell about ancient living communities and the environments they lived in. Lab included. MnTC Goal 3.

***[GEOS 117] Water, Land, and People***

Focuses on the most recent changes in the earth and the portion of the earth with which people have the most interaction, including water, soil, air, and landforms developed by rivers, wind, and glaciers, with emphasis on how our environment influences and is influenced by human activity. Concurrent registration in GEOS 117 Lab required. MnTC Goal 3.

***[GEOS 117L] Water, Land and People Lab***

This is a zero-credit lab that must be taken concurrently with GEOS 117 Water, Land, and People. MnTC Goal 3. Focuses on the most recent

changes in the earth and the portion of the earth with which people have the most interaction, including water, soil, air, and landforms developed by rivers, wind, and glaciers, with emphasis on how our environment influences and is influenced by human activity.

***[GEOS 170] Earth Science Today***

A survey of the components of Earth Science needed for teacher licensure in Minnesota, including aspects of physical geology, historical geology, astronomy, and meteorology. Particular emphasis is placed on critical evaluation of evidence, how we know things in science, what the implications are for our society, and on actual investigation. Topics include volcanoes and earthquakes, the influence of chemical change on natural resources and environment, plate tectonics, planetary science, phases of the Moon, stories told by rocks of the Earth, how weather features form and move, and Earth's climate. Lab included. MnTC Goal 3.

***[GEOS 190] Topics in Geosciences***

This is a topical course and may be repeated when the topic changes.

***[GEOS 205] Thinking Spatially***

This course covers the analysis of three dimensional physical and/or social information across landscapes, including dynamic interactions among spatial variables and how they change with time. Students will learn to think spatially at different time and spatial scales, understand spatial terms (e.g., proximity, shape, density, position, adjacency, gradient, and others), translate 3D features from the real world to 2D features on maps, and make inferences about causation based on observed spatial correlations.

***[GEOS 207] GPS Field Techniques***

This course introduces students to Global Positioning System (GPS) data collection techniques commonly used to map point, line, and polygon features in the field. Experience with hand-held GPS units will be complemented by theoretical and background discussions of GPS and techniques for importing and manipulating GPS data in ArcGIS software.

***[GEOS 209L] Problems in Introductory Geology***

This independent study self-learning module provides a guided opportunity to practice applying concepts from GEOS 109 through science reasoning challenges, real-world geology problems, and self-guided labs and field work. Problems include exercises in mineralogy, petrology, paleontology, stratigraphy, geochemistry, structural geology, and geophysics. Online lectures provide a review and extension of concepts from GEOS 109. Pre-requisite = GEOS 109 or other college level science course.

***[GEOS 210] Cartography***

This course covers elements of map design including projection from globe to map, map composition, graphic tools of mapmaking, and different map types and their origins, uses, and their underlying strengths and limitations. Students will gain experience with map construction from both traditional pen and ink production to the modern output of Geographic Information Systems.

***[GEOS 211L] Problems in Water, Land, and People***

This independent study self-learning module provides a guided opportunity to practice applying concepts from GEOS 110 (Water, Land, and People: An introduction to Physical Geography) through applied reasoning challenges, real-world problem in physical geography, and self-guided labs and field work. Problems include exercises in landscapes and landscape formation, soils and ecosystems, surface and groundwater processes, weather and climate, natural hazards, and natural resources. Online lectures provide a review and extension of concepts from GEOS 110. Pre-requisite = GEOS 109 or 110.

***[GEOS 235] Geography of Minnesota and North Dakota***

Survey and analysis of the physical and cultural environments of Minnesota and North Dakota.

***[GEOS 290] Topics in Geosciences***

A topical course in geosciences which may be repeated when the topic changes.

***[GEOS 301] Archaeological Prospection***

Examination of geophysical prospecting methods available for archaeological research. Emphasis on the conceptual basis of different prospecting methods and their application in archaeological and geotechnical studies. Hands-on experience with geophysical instruments. Same as ANTH 301

***[GEOS 302] Mineralogy***

This course introduces students to the crystal structure, chemistry, physical properties, geological and chemical environments of formation, and natural occurrence of minerals. Understanding of minerals and mineralogy is foundational to geology and it is recommended that this course be taken prior to other upper level geology courses where possible. Lab included.

***[GEOS 302L] Mineralogy Lab***

This is a mineralogy lab course that must be taken concurrently with GEOS 302.

***[GEOS 303] Mineralogy and Petrology***

This course introduces students to the crystal structure, composition, and occurrence of minerals and to the interpretation of igneous, sedimentary, and metamorphic rocks. It examines how rocks and minerals form, focusing specifically on chemical and structural character of minerals, phase relationships among minerals, and on how the textural and compositional features of rock reveal Earth's past and present. This course includes 3 hours lab per week (GEOS 303L) which must be taken concurrently. Pre-requisite = GEOS 109 or 209L.

***[GEOS 303L] Mineralogy and Petrology Lab***

This is a mineralogy and petrology lab course that must be taken concurrently with GEOS 303.

***[GEOS 304L] Problems in Mineralogy and Petrology***

This independent study self-learning module provides a guided opportunity to practice applying concepts from GEOS 303 (Mineralogy and Petrology) through science reasoning challenges, real-world geology problems, and self-guided labs. Problems include labs in mineral identification in hand sample and under the microscope, interpretation of rocks under the microscope, practice in recognizing symmetry patterns, interpretation of phase diagrams, application of Goldschmidt's Rules, and mineral uses and refining constraints. Pre-requisite = GEOS 109 or 209L, co-enrollment in GEOS 303 Mineralogy and Petrology recommended.

***[GEOS 305] Oceanography***

Introduction to oceanography, with emphasis on: ocean-atmospheric interaction and global climate, plate tectonics and morphology of the ocean basins, marine geology, energy resources, environmental problems due to sea level rise, coastal erosion, oil spills, and life in the sea. MnTC Goal 10 and 3

***[GEOS 307] Introduction to GIS***

Students will use Geographic Information Systems (GIS) techniques to acquire, adjust, extend, modify, integrate, analyze, map, and manage digital spatial data (both rasters and vectors) across space and time, using the standard ArcMap interface and extensions (especially 3D Analyst and Spatial Analyst) and customized toolboxes in ESRI’s ArcGIS suite of software. This course builds on concepts introduced in the Thinking Spatially (GEOS 207) and Cartography (GEOS 210) courses and applies them to physical, biological, and social data within a GIS.

***[GEOS 310] United States and Canada***

Regional survey of United States and Canada with emphasis on regional contrasts and interrelationships. MnTC Goal 5.

***[GEOS 315] Sedimentology and Stratigraphy***

Classification and description of the various kinds of sediments and sedimentary rock units; sedimentary facies; cyclic sedimentation; and techniques of correlating sedimentary rocks. Laboratory exercises will be incorporated into the lecture period. One field trip is required. A special fee will be assessed to those students electing to participate on an optional field trip to cover transportation costs.

***[GEOS 320] Economic Geography***

This course will focus on the geography of human economic activities, including agriculture, mining, manufacturing, trade, and the global patterns of world economics. MnTC Goal 8.

***[GEOS 321] Sustainable Transportation***

Human nature is characterized in part with wanderlust, migratory urges, trade and commerce, and just wanting to see what is over the next hill in our exploring our environment. This course begins with a survey of all transportation types and modes, how they developed, and how and why be have arrived at the particular situation we find transportation and accessibility to exist in our world. We also analyze how transportation is or is not sustainable in the contexts of environment and the ethics of accessibility. MnTC Goal 9

***[GEOS 325] Reading Landscape: Ways of Seeing***

Explores the landscape concept as developed and applied within anthropology and the geosciences. Considers the interaction of culture and perception in the way we view our physical world. Writing Intensive.

***[GEOS 330] Elementary Meteorology***

The basic elements of weather, including temperature, pressure, condensation and precipitation, air masses and fronts, vorticity, jet streams and storms. MnTC Goal 3 and 10.

***[GEOS 335] Environmental Geography and Conservation***

This course is a description, analysis, and spatial study of environmental problems including food supplies, energy resources, pollution of all types, wildlife habitat and habitat loss, and environmental change and degradation. The course will also explore the human impacts on environment and ecosystems, and discussions of conservation and preservation issues. MnTC Goal 10.

***[GEOS 340] Economic and Environmental Geology***

This course introduces students to aspects of geology important in understanding earth's energy and mineral resources and how human activities in extracting and using those resources affect our environment. Key topics covered include an introduction to water movements on and in the ground (hydrology), how pollutants move in that water, the geochemical interactions among earth, water, and air, ore-forming and oil-forming processes, economic considerations important in the use of natural resources, and environmental laws.

***[GEOS 345] Principles of Geomorphology & Hydrology***

This is an interdisciplinary course designed for students with an interest in Environmental Science with a moderate background in the physical sciences. It will include the following major topics: 1) The Earth's dynamic surface and major processes that influence the landscape types and evolution, 2) Landscape systems and types (soils, fluvial systems and drainage basins, glacial and periglacial landscapes, aeolian systems, and tectonic landscapes), 3) The influence of climate and humans on landscape types and evolution, 4) The principles of surface and groundwater hydrology, and 5) Water quality and the impact of humans on water resources. Upon completion of this course, students will have an appreciation and understanding of the geological influences on landscape and water resources, the human impact and influence on landscapes and water resources, and the influence of landscapes and water resources on society.

***[GEOS 350] Geoarchaeology***

Examines the application of Geoscience methods and techniques to archaeological deposits and

materials. Emphasizes foundational concepts in Geoarchaeology, the role of Geoarchaeology in contemporary archaeology, and the application of geoarchaeological knowledge and skills to inform archaeological interpretation.

***[GEOS 360] Planetary Science***

A synthesis of current knowledge of the members of the solar system and the origin and evolution of planetary systems. Lab included. MnTC Goal 3.

***[GEOS 360L] Planetary Science Laboratory***

This is a planetary science lab course that must be taken concurrently with GEOS 360.

***[GEOS 361L] Problems in Planetary Science***

This independent study self-learning module provides a guided opportunity to practice applying concepts from GEOS 360 (Planetary Science ) through science reasoning challenges, real-world problems, and self-guided labs, with particular focus on selected astronomy issues required for Earth Science Teaching licensure in Minnesota. Concepts addressed include planetary processes, age dating, geochemical evidence for formation of the Earth and Moon, seasons, phases of the Moon, stellar evolution, galactic evolution, Kepler's Law, and measuring distances in space. Pre-requisite = GEOS 109 or 209L, or other college-level science course. Co-enrollment in GEOS 360 Planetary Science recommended.

***[GEOS 370] Structural Geology and Mapping***

This course covers key aspects of structural geology including deformational structures, deformational styles, and material properties. The lab focuses on mapping skills such as interpretation of geological maps and inferring cross-sectional view based on map views.

***[GEOS 370L] Structural Geology and Mapping Lab***

This is a structural geology and mapping lab course that must be taken concurrently with GEOS 370.

***[GEOS 390] Topics in Geosciences***

This is a topical course and may be repeated when the course topic changes.

***[GEOS 394] Research in Geosciences***

Individual research in collaboration with instructor. Product may be a written report, publication, or report at a professional meeting. Project and its format must be accepted by research advisor before registration. May be repeated for different research projects.

***[GEOS 403] Introduction to Remote Sensing***

This course provides an introduction to the use of remotely sensed data in environmental research. Remote sensing is the science of acquiring data using the measurement of electromagnetic radiation by techniques that do not require actual contact with the object or area being observed. Most environmental applications of remote sensing use instruments carried on satellites. The different sensors used to collect this information, and the interpretation techniques vary quite widely, and are being developed at an astounding rate. In this course, we will focus on the interpretation and applications of data from space-borne imaging systems (eg: Landsat MSS, Landsat TM, Landsat ETM+, Quickbird, IKONOS, MODIS, ASTER, AVHRR).

***[GEOS 407] Spatial Analysis***

Students will use advanced GIS techniques to spatially adjust, extend, modify, integrate, analyze, visualize, and correlate digital spatial data (both rasters and vectors) across space and time using ESRI's ArcGIS extensions (especially 3D Analyst and Spatial Analyst) and customized toolboxes in ArcGIS. This course builds on concepts introduced in the Thinking Spatially (GEOS 207) and Introduction to GIS (GEOS 307) courses and applies them to physical and social data in a GIS.

***[GEOS 410] Eastern Europe and Russia***

This course is a regional study of Eastern Europe and Russia which will focus on the global importance of the nations of this region, and the origins of their influence. An understanding of the physical and cultural characteristics of the region

will provide a foundation for the understanding of the events of recent history, and the geographic significance of the nation-states of the region. MnTC Goal 8.

***[GEOS 415] Reading Geochemical Fingerprints***

This course addresses the geochemical processes by which the Earth has become chemically differentiated, the impact of that differentiation on humans past and present, and the ways by which chemical fingerprints can be used to understand past human activities. Students can expect to learn about ore and soil-forming processes, processes for chemical and isotopic differentiation in the lithosphere, hydrosphere and atmosphere, statistical methodologies for studying chemical differences, analytical methods for measuring chemical and isotopic properties of earth materials, influence of geographic distribution of resources on human occupation, and the use of chemical information in archaeological studies. Students will participate in solving geochemical and archaeological puzzles using chemical, mineralogical and textural information.

***[GEOS 416] Paleontology***

An introduction to the history of life on Earth. Lectures focus on concepts in paleontology including origin of life; evolution; ecology; and use of fossils in the solution of geologic problems. Characteristics of common fossils will be the focus of the laboratory. Two lectures and one one-hour lab per week. One field trip is required; up to two optional field trips possible (fee will be required to cover travel cost of trips).

***[GEOS 417L] Problems in Geochemistry***

This independent study self-learning module provides a guided opportunity to practice applying concepts from GEOS 415 (Reading Geochemical Fingerprints) through science reasoning challenges, real-world geology problems, and self-guided labs. Problems include applying geochemical principles to interpretation of archaeological and environmental data with consideration of statistics, analytical methods, phase chemistry, isotopes, and chemical partitioning. Pre-requisite = GEOS 109 or 209L, co-enrollment in GEOS 415 Reading Geochemical Fingerprints recommended.

***[GEOS 455] Field Methods in Geoarchaeology***

Provides field experience with a variety of geoarchaeological techniques applied within the context of an interdisciplinary research program. Research design and the research process will also be emphasized. In addition to the listed pre-requisite, students must have taken at least one entry level geology course. Same as ANTH 455.

***[GEOS 469] Internship***

A supervised, practical experience in the field, with report, journal, or other synthesis done in consultation with an MSUM advisor. A maximum of 12 internship credits may be applied to the degree.

***[GEOS 490] Topics in Geosciences***

This is a topical course and may be repeated when the course topic changes.

***[GEOS 492] Senior Seminar and Research Capstone***

This course includes substantial experiences in disciplinary communications, including reading, writing, and speaking in the discipline. Projects include group discussion/debate of real world problems, practice interpreting professional texts, graphs, maps, and statistical data, multiple writing assignments, including a written report of personal research or professional activity, an oral public presentation of research, and three hours/week independent research/professional activity.

***[GEOS 494] Research in Geosciences***

Individual research in collaboration with instructor. Product may be a written report, publication, or report at a professional meeting. Project and its format must be accepted by research advisor before registration. May be repeated for different research projects.

***[GEOS 499] Continuing Studies Workshop***

Continuing Studies Workshop

## Graphic & Interactive Design

***[GID 210] Introduction to Graphic Design***

This course is an inquiry into the nature of graphic design which, if used effectively and ethically, is a powerful visual tool. Inquiry includes: Visual problem-solving, introduction to typography, symbols, lettermarks, logotypes, publication design, information design, three-dimensional design, as well as client/designer relations, studio operations and production procedures.

***[GID 230] Introduction to Digital Design***

Computers are an important tool to the graphics industry and to the digital designer. They help visualize and create and communicate ideas and concepts. With the help of computers designers can generate infinite amounts of images, graphics, and designs. As important as they are, computers cannot generate the creativity and design that a person can; they just wait to be told what to do. They are a tool, just like pen and paper are tools, to be used by the designer. But just because someone can use a computer and graphics software does not make them a designer. It takes a skilled person, who is knowledgeable in all of the industry specifications and requirements, to begin and complete a professional graphics project. As technology advances, there needs to be knowledgeable and creative designers to effectively use these new tools. Technology will simply help to make the process more efficient and accurate and give designers more room to be creative. This course is one of the first steps on the road to becoming a skilled and professional designer. It is based upon the Macintosh computer and the programs used in the graphics industry today for the creation of raster graphics, vector graphics, and layout design. It will provide a basic understanding of the programs as well as the fundamentals for producing graphics according to industry standards.

***[GID 250] Introduction to Interactive Media***

This course provides students with a strong foundation in the many ways to create, render, optimize, organize, and share contemporary interactive media content. Students will learn how to build and host web-based content and populate their websites with production projects that combine elements of image, sound, video, animation and immersive 360 content. Classes will involve hands-on experiences as well as lectures, demonstrations, and reading assignments.

***[GID 290] Topics in Graphic & Interactive Design***

Topics in Graphic and Interactive Design. Course may be repeated as topic changes.

***[GID 310] Typography***

This course will cover the fundamentals of typography as they relate to design. Beginning with the history and origins of the alphabet, to classic type families, to working with type measurements and terminology, concluding with contemporary typographic design. Traditional to experimental typography will be explored.

***[GID 312] Visual Systems and Brand Identity***

A vast majority of designed works are systematic in nature rather than existing as a single-format piece. Visual systems and brand identity will begin with an introduction in designing these visual systems. From there it will explore how to create a brand identity and the implementation of the brand strategy.

***[GID 314] Experience Design***

Experience Design will explore visual semiotics and the interaction between the viewer and the visual design. How metaphors can help to visually explain ideas to a user/viewer. A focus will be on using interaction design, information architecture, and user research. The application of research, analysis, and intuition.

***[GID 330] Intermediate Digital Design***

This course is a continuation of the topics introduced in GID 230 Introduction to Digital Design, which is based upon the Macintosh computer and the programs used in the graphics industry today. In GID 230, students learned the

basics of digital design, which includes the development of technical, creative, aesthetic, and production knowledge and skill sets. This course will explore in more depth these skill sets, creation of raster graphics, vector graphics, layout design, and the correct use of professional computer applications to design and produce graphics and layouts. It will provide an understanding of the applications at a deeper level, both technical and creative, as well as the best practices for the production of graphics according to industry standards. In addition to expanding the depth and breadth of topics begun in the introductory course, there are other content areas that will be introduced, including simple raster and vector looping animation, mobile platforms for Photoshop and Illustrator, mobile-to-desktop workflow, and other mobile apps that can be used in graphic creation.

***[GID 350] Intermediate Interactive Media***

This course focuses on intermediate-level design and development of interactive media experiences through current front-end technologies. These technologies include web, mobile, handheld, and wearable and immersive devices. Subjects include planning and concept development, prototyping, user experience, design, content management, and social media. Applications and scripting languages include HTML5, CSS3, JavaScript, and streaming and embedded platforms.

***[GID 390] Topics in Graphic Interactive Design***

Topics in Graphic Interactive Design

***[GID 397] Independent Study in Graphic & Interactive Design***

Independent Study in Graphic & Interactive Design

***[GID 410] Advanced Typographic Design***

Advanced studies in typography. The course will expand on GID 310 and the use of typography from practical to experimental. Typography is everywhere from print, to web, to time and motion. Students will further study and analyze typography to learn what is appropriate, and not, in design solutions. They will explore when clear communication is required, and when to use type to visually entertain.

***[GID 430] Advanced Digital Design***

This course is an in-depth exploration of three of the most widely used programs in the graphics industry today: Adobe Illustrator and Adobe Photoshop and Adobe InDesign. By mastering these powerful programs, a designer will have the ability to create images and graphics and layout designs that are not only exceptional in color and quality, but also contain many special enhancements that will create the illusion of reality, enhance visual communication, and produce professional level designs. Students will learn advanced layout design techniques in Adobe InDesign by creating multi-page/panel projects that use both production and aesthetic components. Advanced aesthetic and technical skills will be learned and utilized in the creation of vector graphics in Adobe Illustrator. Students will begin learning advanced techniques in Adobe Photoshop to create new raster graphics, create composites, and manipulate and enhance images. Since Adobe Photoshop is such a powerful program that has many different functions, it is not possible to address all the advanced techniques in this course (but will be continued in the Digital Design Studio class). Mobile-to-desktop workflow will be incorporated in various projects. Augmented Reality (AR) concepts and projects will be incorporated (which will include the use of Photoshop, Illustrator, and InDesign to create graphics and layouts and the Adobe Aero software to create the AR experience). New concepts to be introduced are the workflow involved in combining Adobe Illustrator and Adobe Photoshop files together into one seamless design for production, 3D creation and use in Photoshop and Illustrator, and InDesign interactivity (including creation of interactive single and multiple page designs with animation, interactive presentations, liquid layouts, etc).

***[GID 434] Digital Prepress and Production***

Digital Prepress includes all facets of a project from concept to print. Knowing how all of these processes fit together and how each step effects the next is essential for the graphic communicator. It is not only important to know how to use the computer applications to create a project for print, it is also important to know that what you have created is capable of being printed. This requires knowledge of the printing processes and materials and the impact they have on what is being created on the computer. This course is based upon the offset lithographic printing process and the digital prepress process that it uses. It utilizes Macintosh computers and the programs used in the graphics industry today.

***[GID 438] Digital Design and Production Studio***

Digital Design & Production Studio is an advanced study in digital design and production techniques. It is the culminating course in the Digital Design and Digital Prepress course series. This course is designed to bring together all of the digital design/graphics and digital prepress knowledge already learned, prepare students for presenting projects and working with clients, and to continue the in-depth exploration of Adobe Photoshop begun in the GID 430 Advanced Digital Design course. Graphic communicators must be prepared to and comfortable with showing and explaining their projects to others (clients, employers, etc). They must also become comfortable with others critiquing their work and requesting changes to the project. The projects and presentations in this course are designed to help students become more comfortable with this aspect of the graphics industry. Students will work individually and in groups on projects that will require the use of the digital design (both layout and graphics) and digital prepress skills already learned. These projects are designed to simulate the real-world experience of working on projects for clients. Students will be assigned a company and will create various drafts of the assigned project based on "client" feedback. Each of these project drafts will be presented to the class for critique and will need to be reworked based on the critique and the "client" feedback until the desired final results are achieved.

***[GID 450] Advanced Interactive Media***

This course focuses on advanced interactive design and development of media experiences through current front-end technologies. Building on the foundation and responsive skills you learned in GID350, we will focus more deeply on developing your project with a higher level of attention to the aesthetics of your original designs, project management, and user experience concerns. You will work with contemporary prototyping tools, frameworks, and content management systems (CMS) to produce high quality, client-focused projects for your portfolio. You will learn the latest CMS tools for content, SEO, Analytics, commerce, and other commonly used technologies. We will explore emerging CMS tools that enable immersive experiences.

***[GID 454] Immersive Media***

In this course, students will learn the history and fundamentals of immersive media, the digital tools used to create it, and how this medium is unique from its predecessors. We will explore the breadth of the existing field, including Extended Reality (XR), Mixed Reality (MR), and focus on developing projects in Virtual Reality (VR), and Augmented Reality (AR). The course will teach students in visual and design fields how to tell stories using 360-degree photos, video and computer-generated art and scenes that users experience through mobile devices and VR headsets.

***[GID 458] Interactive Media Studio***

This course provides students with the opportunity for high-level studio practice in interactive media design projects. It builds sequentially upon the skills and knowledge of multimedia by providing a focus on creative image and interactive media production for a range of art and design applications. Students will have the opportunity to research and engage with contemporary and effective interactive media projects. Student teams engage in service-based projects that support a particular cause or issue in our community.

***[GID 469] Internship***

Available to all Graphic Interactive Design students in junior or above status. Approved practical work experience. Supervised by departmental faculty. A maximum of 12 internship credits may be applied to the degree.

***[GID 492A] Capstone Research: DDP & IM***

This course is an advanced course for Graphic & Interactive Design majors with a Digital Design & Production emphasis or an Interactive Media emphasis. This course along with GID 492B provide students their capstone experience, which culminates in creating, producing, displaying, and presenting a professional-level project in the Senior Showcase. Projects must focus on design, technical, and production skills and knowledge ascertained from previous semesters, as well as experiment and expand beyond the content provided in coursework. The GID 492A course is the first step in this process and has been specifically designed to provide students the opportunity to analyze and reflect on their professional preparation, with a focus on development and critique of resumes and portfolios. It also exercises students' writing, research, planning, and organizational skills in putting together a professional proposal that will be used in the creation of their project for the Senior Showcase. This proposal will serve as the framework for the weekly development and critiques that will take place the following semester in GID 492B and must include detailed descriptions, specifications, timelines, and budgets.

***[GID 492B] Capstone Project: DDP & IM***

This course is an advanced course for Graphic & Interactive Design majors with a Digital Design & Production emphasis or an Interactive Media emphasis. This course along with GID 492A provide students their capstone experience, which culminates in creating, producing, displaying, and presenting a professional-level project in the Senior Showcase. Projects must focus on design, technical, and production skills and knowledge ascertained from previous semesters, as well as experiment and expand beyond the content provided in coursework. The GID 492B course is the final step in this process and has been specifically designed for students to create and produce their capstone project based on their individual proposal plan created in GID 492A. There are weekly project deadlines and presentations to the class, with a focus on professional critique of the aesthetics, functionality, and technical skills of each project piece. In order to be accepted into the Senior Showcase, projects must pass weekly, mid-semester, and end-of-semester benchmarks which include meeting deadlines in the timeline, adherence to all the project specifications defined in the proposal, incorporation of advanced technical and production skills, and professional-level aesthetics and quality.

***[GID 492C] Capstone Research: GD***

This is an advanced course for Graphic & Interactive Design majors with a Graphic Design emphasis. This course and GID 492D are used as the capstone experience in producing a senior project, exhibition, and the development of a portfolio. The 492C course is the first step in this process and has been specifically designed to provide students the opportunity to critically analyze and develop their portfolio, technical skills, and to continue their study in various graphic design specialties in preparation for their Senior Gallery Exhibit and professional practice.

***[GID 492D] Capstone Project: GD***

This is an advanced course for Graphic & Interactive Design majors with a Graphic Design emphasis. This course and GID 492C are used as the capstone experience in producing a senior project, exhibition, and the development of a portfolio. The 492D course is the second step in this process and is a continuation of the work begun in the Capstone Research course. It has been specifically designed to provide students the opportunity to critically analyze and develop their portfolio, technical skills, and to continue their study in various graphic design specialties in preparation for their Senior Gallery Exhibit and professional practice.

***[GID 497] Independent Study***

Independent Study in Graphic and Interactive Design

## Health

***[HLTH 110] Personal Health and Wellness***

This class assists students in examining their personal level of wellness, which includes physical fitness, making good nutrition choices, maintaining a healthy body composition, dealing effectively with stress, determining personal risk for cardiovascular disease and cancer, making wise choices in drug use and avoiding abuse, protecting one's self against sexually transmitted diseases and identifying skills for developing and maintaining successful interpersonal relationships.

***[HLTH 125] First Aid and CPR***

To provide the citizen responder with the knowledge and skills necessary in an emergency situation to help sustain life and minimize pain and the consequences of injury or sudden illness until medical help arrives. Successful completion leads to American Red Cross certification in cardiopulmonary resuscitation (CPR) for adult, child and infant, and First Aid Responding to Emergencies.

***[HLTH 130] Introduction to Health Professions***

Introduction to Health Professions is a course designed for students interested in exploring the many career paths available in health care. This course will help students decide of a career in the health professions is a good fit for them. Students will have the opportunity to reflect on their own values, skills and strengths. They will also hear first-hand from an extensive line-up of guest speakers and learn more about the academic and experiential requirements for health professional schools.

***[HLTH 190] Topics in Health***

This is a topics course which may be repeated as course content may vary.

***[HLTH 305] Introduction to Nutrition***

An introductory course in nutrition focusing on improving personal food choices, discriminating between sources of nutritional information, proper diet planning and maintaining healthy weight.

***[HLTH 311] Health in the Elementary Schools***

This course emphasizes maintaining and improving personal health and wellness and developing and using motor skills for an active classroom. It also is a preparation for pre-service teachers to take part in developing health behaviors in their pre-primary through 8th grade level students. This course includes methods of instruction.

***[HLTH 327] Safety Education and Consumer Protection***

Study and evaluation of factors in safety awareness, accident prevention and consumer protection.

***[HLTH 330] Disease Prevention***

Introduction to common diseases with an emphasis on primary, secondary and tertiary prevention in health education and health promotion.

***[HLTH 335] Health Education and the Middle Level Adolescent***

The middle level adolescent (children between the ages of 10 and 14) experiences dramatic changes in nearly every aspect of their physical, social, emotional, and intellectual lives. Health Education and the Middle Level Adolescent addresses these special considerations, as well as the special role of health education within the goals and philosophy of the middle level approach.

***[HLTH 340] Health Methods and Materials***

Students learn to design, implement and evaluate health lessons related to the National Health Education Standards and the Centers for Disease Control priority areas. Emphasis is placed on developing lesson plans that incorporate measurable objectives and a variety of teaching methods for students in grades 9-12.

***[HLTH 412] Education for Sexuality and HIV/AIDS***

This course trains health education majors and minors to carry out sexuality education for students in grades 7-12. Emphasis is placed on developing self-esteem, healthy relationships, and social skills. Current educational research is applied to promote sexual health in children, adolescents, and adults.

***[HLTH 465] Coordinated School Health Programs***

A step-by-step approach to developing, implementing, and evaluating coordinated school health programs that include school health instruction, school environment, guidance and counseling, health services, food and nutrition programs, physical education, school site health promotion and the development of school and community partnerships.

***[HLTH 469] Internship***

Designed for Community Health and Health Service Administration majors. Involvement in field work by placement in health related governmental, volunteer, non-profit, or commercial agencies. A maximum of 12 internship credits may be applied to the degree.

## Health Services Administration

***[HSAD 218] Introduction to Healthcare and Global Health***

This course is designed to provide an introductory perspective of health care; issues related to cost, quality, and access; policies, financing, and community health initiatives. Additionally, various health care models that are used around the world, factors related to global health problems, and the interprofessional collaboration needed to address these challenges will be discussed. MnTC Goal 8.

***[HSAD 290] Topics in Health Services Administration***

Topics in HSAD which may be repeated as course content may vary.

***[HSAD 326] Epidemiology and Introductory Biostatistics***

This course will provide students with an understanding of basic concepts and methods of epidemiology and biostatistics. The course covers epidemiological methods and biostatistical procedures, and emphasizes how these concepts can be used to examine disease status and exercise control mechanisms in the field of health services administration. Epidemiologic methods for the control of conditions such as infectious and chronic diseases, mental disorders, community and environmental health hazards, and unintentional injuries are discussed. Additionally, students will be introduced to tools and concepts of biostatistics and how these concepts can be applied to epidemiology, the practice of public health and population-based management.

***[HSAD 350] Evidence Based Program Planning and Research Methods***

This course covers topics related to research methodologies, data collection strategies, and program evaluation methods in healthcare organizations. There will be an emphasis on qualitative and quantitative research design, statistical methods, and ethical standards/issues while conducting research with human participants including vulnerable populations. Students will develop the ability needed to identify, examine, and utilize an evidence based approach in making better decisions.

***[HSAD 390] Topics in Health Services Administration***

Topics in HSAD which may be repeated as course content may vary.

***[HSAD 397] Independent Study***

Independent Study Course

***[HSAD 400] Aging in the United States: Intro to Gerontology & Sr. Support Care***

This course is designed to provide an overview of the field of gerontology with an emphasis on senior care and services/resources available to meet the needs of elderly population. The course considers the continuum of care including home care,

assisted living, skilled nursing facilities and hospice. The role of technology, including gero-technology, in improving quality of life is examined.

***[HSAD 401] Health Aspects of Aging***

This course is designed to provide an understanding about adult development and aging. The purpose of the course is both to provide a general introduction to the field of gerontology and specific focus on some aspects of aging behavior.

***[HSAD 403] Health Informatics***

This course is designed to provide a broad perspective of the field of Health Informatics. This course is appropriate for students in Nursing, Community Health, Social Work, Health Services Administration, Business Administration and Health Education. The course focuses on information retrieval, risk management and evaluation, healthcare ethics, confidentiality and analysis of data. Students will get an overview about areas of employment opportunities in the field of health informatics.

***[HSAD 414] Healthcare Strategic Planning and Marketing***

This course is designed to provide a comprehensive view of healthcare strategic planning and marketing processes and the application to healthcare services delivery.

***[HSAD 416] Healthcare Leadership and Management***

Healthcare Leadership and Management involves the management theories and practices within variety of health care settings including acute care, clinical, community health, and long-term care organizations. There will be a strong focus on organizational behavior theories, leadership and planning, personnel management and information technology, as well as risk management, and utilization review.

***[HSAD 417] Quality Management in Health Care***

Quality Management in Health care is designed to provide students an overview of the problems faced by the US health care system and how implementation of quality improvement (QI) strategies can help in addressing these concerns. Students will develop an understanding of the role of interdisciplinary teams in patient care process, application of process improvement methodologies, and how to manage and lead change initiatives in health care organizations.

***[HSAD 418] Healthcare Law and Ethics***

Provides an overview of the legal and ethical issues specific to the healthcare industry.

***[HSAD 419] Healthcare Finance and Reimbursement Methods***

This course is designed to provide an overview of the current healthcare financial climate, introduction to tools and techniques as well as terminology used in health care financial management. There will be a strong focus on budgeting and resource allocation. The course will provide a foundation of reimbursement methods as they apply to health care settings.

***[HSAD 420] Health Policy and Economics***

This course is designed to provide a comprehensive view of the economic forces that shape change in today's healthcare delivery system. The course will explore the basic framework of health policy within the United States and the functioning of the healthcare delivery system in a complex social environment. The course provides a fundamental foundation for understanding the principles of healthcare economics, theory of demand and supply, and how these impact the healthcare market.

***[HSAD 421] Long Term Care Administration***

Overview of how the elderly receive care and support in their home and a variety of institutional settings. Focus on the impact of federal and state law-regulations on the delivery of care; the organization of a nursing home and how the delivery of services are arranged; and integrated in the delivery of care and the techniques and

processes for effective long term care management.

***[HSAD 422] Regulatory Management in Healthcare***

This course examines legal and ethical issues faced by aging populations and topics related to regulatory management of senior support services in communities and institutional settings. Additionally, concepts related to healthcare reimbursement methods are addressed.

***[HSAD 440] Talent Management in Healthcare***

This course is designed to study, understand, and apply basic skills essential to role of talent management within healthcare. The degree to which healthcare organizations understand and manage talent resources will have a significant impact on the success of the organization. This course serves as a comprehensive foundation for core aspects of talent planning, development, and administration vital to the talent manager, operational managers, and senior leaders. Additionally, course will aim 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. Students will learn that responsible citizenship requires them to develop skills to understand their own and others' positions, the fundamental importance of talent management, be part of the free exchange of ideas, and function as public-minded citizens.

***[HSAD 468] Internship Seminar***

The internship seminar is designed to provide information that will enhance the overall internship program. This course prepares the student to move into the internship experience by selecting a potential site for the internship experience. This course will create a professional foundation for the student to draw upon moving into the internship experience. A maximum of 1 credit can be taken towards seminar course.

***[HSAD 469] Internship***

The internship is designed to provide students with valuable real-world experience in healthcare, generally with local providers and/or organizations. Students receive academic credit for work of significant practical value to the sponsoring facility and the intern, performed under the supervision of the Health Services Administration faculty. A maximum of 12 internship credits may be applied to the degree.

***[HSAD 490] Topics in Health Services Administration***

This is a topics course which may be repeated as course content may vary.

## History

***[HIST 101] Critical Issues in U.S. History***

This course aims to develop students' critical thinking and multicultural skills by using four case studies in American history. The case studies offer the opportunity for the student to experience the history of multicultural America through engagement with primary and secondary sources in a variety of written and oral exercises. MnTC Goal 2.

***[HIST 104] World History I***

World Civilizations from the ancient through classical periods and up to 1500. MnTC Goal 5.

***[HIST 105] World History II***

The World since 1500; history of world civilization and the growth of the modern global community through politics, economics and culture. MnTC Goal 5 and 8.

***[HIST 121] History of the United States to 1877***

The colonial beginnings to the end of Reconstruction; the founding of the American society and growth of the new nation through the aftermath of the Civil War. MnTC Goal 5.

***[HIST 122] History of the United States Since 1877***

The Gilded Age and 20th century; the development of modern industrial America to world power status. MnTC Goal 5.

***[HIST 190] Topics in History***

Selected topics and regions in historical perspective. Designed especially for the liberal arts student, the course may be repeated for credit under a different subtitle as the subject matter changes. Not applicable to History or Social Studies majors.

***[HIST 205] Introduction to Historical Methods***

For History and Social Studies majors, this is an introduction to the fundamental skills and proper conduct of the historical professional. Students will become familiar with the various schools of historical thought, available primary and secondary source material, correct citation of sources, potential careers in history, as well as the research, drafting, refining and presentation of a polished historical research paper.

***[HIST 220] Contemporary Asian America***

This course studies the changing images of Asians in America, and discusses how race, class, and gender have shaped the experiences of different Asian ethnic groups. Same as AMCS 220. MnTC Goal 7.

***[HIST 226] Introduction to Cultural Management***

This course introduces students to opportunities for careers working in museums, galleries, theatres, consultancies, tourism, and other cultural institutions. Students will engage with area professionals to learn about their work; read and discuss practices, standards, and issues in working with the general public; and work on group projects to begin developing the appropriate communication skills.

***[HIST 276] The World of Food***

Using food and eating as a way to connect disparate cultures and geography, this course discusses issues of global concern such as food security, famines, the gendering of food, GMO crops and food as an industry, as well as topics like religious food restrictions, vegetarianism, local foodsheds, allergies, food and identity and food in popular culture. MnTC Goal 8.

***[HIST 290] Topics in History***

This course is a topics course and may be repeated when the topic varies.

***[HIST 301] East Asian History I***

Traditional China, Japan, and Korea from the Neolithic cultures to mid-19th century.

***[HIST 302] East Asian History II***

East Asia since 1830: Western intrusion, reform, revolution and contemporary issues.

***[HIST 304] Africa in World History***

Africa's role in global history, including the spread of Christianity and Islam, the slave trade, colonialism, and Apartheid. MnTC Goal 5 and 8.

***[HIST 311] Topics in North American History***

Selected topics in North American history.

***[HIST 312] Revolutionary Games***

Using unique pedagogical role-playing exercises, students will participate in crisis turning points of world history, taking on the roles of leaders attempting to grapple with issues like war, natural disaster, minority rights, religious tolerance and immigration. These exercises lead to a major self-reflection project on the relevance of this experience to students' contemporary lives. MnTC Goals 5 and 9.

***[HIST 315] Minnesota and the Upper Midwest***

Historical development of the upper midwest region with particular focus on the State of Minnesota.

***[HIST 317] Medieval Europe***

An analysis of European history from 500 to 1450, focusing on the political, social, religious, and intellectual trends of the period. The early

Germanic kingdoms, the medieval papacy, feudal relations, the expansion of towns and commerce, and the rise of national monarchies will receive particular emphasis.

***[HIST 319] Early Modern Europe***

Examines the transition from medieval to modern Europe between 1450 and 1750. The Renaissance and Reformation, European overseas expansion, the Scientific Revolution and Enlightenment, and the rise of the modern state, culture, and economies will receive particular emphasis.

***[HIST 321] History of Britain I***

Survey from Neolithic settlement to 1714, with emphasis on the legacies of Britain's various settlers, the development of parliament as an institution, the relationship between England, Scotland, Ireland and Wales, the Reformation and early colonization. (Same as LGST 321)

***[HIST 322] History of Britain II***

Survey from 1714 to the present, with emphasis on the formation of the British Empire, industrialization, social and political reform movements and decolonization and political devolutions of the late 20th century.

***[HIST 324] Twentieth Century Europe***

Europe's transition from imperial powers to the formation of the European Union, including both World Wars, the development, rise and decline of fascism and communism as state ideologies, the modern European welfare state, economic reorganization and ethnic conflict in contemporary Europe. Same as INTL 324.

***[HIST 334] Latin America***

Major trends in Latin America in the 19th and 20th centuries. MnTC Goals 5 and 8.

***[HIST 336] History of Mexico***

An examination of the major themes in the development of the Mexican nation with the emphasis on the period since independence.

***[HIST 346] Modern China***

China from the late Qing period to the present with emphasis on the revolutionary movement and attempts at modernization.

***[HIST 347] Modern Japan***

Japan from the Tokugawa period to the present. Focuses on the course of modern transformation: seclusion, industrialization, militarism, reform and reemergence as an economic superpower.

***[HIST 350] Women in European History***

The historical experience of European women as a force in politics, in economic and familial roles, in organized religion and in cultural life, and with special emphasis on the "woman question". Same as WS 350.

***[HIST 359] Colonial America***

This course is a study of the age of exploration and the establishment of the North American colonies. Emphasis will be given to the British colonies of the western hemisphere, but the course will also include those colonies of other nations as they affect American growth and development. It will include a broad treatment of social, political, economic, and intellectual forces to 1763.

***[HIST 360] Revolutionary America***

A survey of rising British colonial protest after 1763, the subsequent war for American independence, and the ultimate establishment of the U.S. constitutional system by 1789.

***[HIST 361] Antebellum America***

This course will focus on the competing economic systems of developing northern merchant capitalism and southern slavery and examine the impact of these two systems on the politics, social relations, and culture of every day Americans in the antebellum (1790-1848) period.

***[HIST 362] Civil War and Reconstruction***

A survey of Civil War and Reconstruction periods in American history examining the causes and

consequences in social, political, military and constitutional areas.

***[HIST 363] Gilded Age and Progressive Era***

Designed to fulfill an upper-level U.S. history requirement for History and Social Studies majors, this course surveys the history of the United States from roughly 1877 to 1920, a period of western settlement, industrialization, massive immigration, and the rise of cities. These developments involved wrenching changes, and the course will examine the problems that were created and the efforts of reformers to address those problems.

***[HIST 365] World War II: A Global Perspective***

This course aims to put context and nuance into the traditional views with which Americans have seen the Second World War. Although keeping the American experience at the center, it will always view that experience through a global lens. We will challenge some of the myths and half-truths that Hollywood has presented to Americans about the war while introducing students to some arguments that have emerged from the latest scholarship on themes like the home front, the actual fighting of the war, and the processes of peacemaking. This course is intended to be a serious, scholarly, and objective analysis of the interplay between American, world, and military history during the most destructive war ever. This course will examine World War II in both Europe and Asia. It will include the causes of the war, the course of the conflict, the diplomacy of the war, and the rise of post-war Europe. A special section will be devoted to the systematic murder of the Jewish population carried out under German authority.

***[HIST 369] The United States in Vietnam, 1945-1975***

A survey of the causes, conduct, and consequences of America's longest war. The political, military, and social aspects of United States involvement with Vietnam will be studied. Satisfies the North American area in the History and Social Studies majors.

***[HIST 373] Monsoon Asia: People and the Environment***

An introduction to the environmental history of South, East and Southeast Asia with emphasis on the modern period. Topics include the environmental factor in the fall of the Indus and Huanghe Civilizations, unsustainable development in traditional Asian societies, impacts of imperialism on the Asian environment, consequences of industrialization, and contemporary environmental issues. MnTC Goal 5 and 10.

***[HIST 374] Plagues & Peoples: Disease and the Environment***

This course introduces the student to the complex and interdependent relationship humans have with disease and the environment. We have long recognized the environment in which we live and work plays a key role in our physical health. To help us understand our modern social, medical, and political response to epidemic disease, we will examine the ways epidemics have taxed economic, religious, and political resources through time. Additionally, we will look at ways society reacted to epidemic disease, and how the medical community evolved to meet this threat. MnTC Goal 5 and 10.

***[HIST 375] Women in United States History***

Women's experiences in the family, work, religion, reform, and the women's rights and feminist movements; seeks to understand women's issues in historical perspective.

***[HIST 377] African-Americans in U.S. History***

The historical experience of African Americans from slavery to the present; how American society has oppressed African Americans and how they have struggled against that oppression, with particular emphasis on organized resistance in the era of the Civil Rights movement.

***[HIST 379] Environmental History***

This course is a study of the history of humankind's interactions with the environments focusing on the past 500 years. Special attention will be paid to the

non-Western world. Topics include global interconnectedness and the spread of disease, the relationship between trade, modern economics, and sustainable development, natural disasters, and the rise of the ecological movement. MnTC Goal 5 and 10.

***[HIST 383] Ancient Near East I (Greece)***

This course examines the politics, culture, and society of the Ancient Near East (c.3000 BCE-c.300 BCE) including Persia, Mesopotamia, Egypt and surrounding areas. The course will outline the political narrative while featuring, myth, religion, gender, architecture and art. Using both secondary and primary sources, the course will also trace the achievements of Alexander the Great.

***[HIST 384] Ancient Near East II (Rome)***

This multi-faceted course examines the cultural, political, spiritual, intellectual, and social-economic developments of the ancient Near East, including the Hellenistic World, Persia, North Africa and Rome c. 300 BCE-600 CE. Special topics include politics, empire building, religious cults, Christianization of the late Roman Empire, textual and material sources for the conversion of Constantine, architecture and gender in the Roman world.

***[HIST 385] History of Christianity***

This course surveys the theological, political and cultural history of Mediterranean Christianity c. 4 BCE-400 CE. The semester is divided into five units: the historical Jesus, Paul, Patristics, Asceticism & Heresy, and Early Christian Rome. Other themes include: women, angels, sacred space, martyrdom and sanctity.

***[HIST 390] Topics in History***

This is an upper division topical course and may be repeated when the topic varies.

***[HIST 397] Independent Study***

Independent Study in History

***[HIST 420] History of Drugs***

This class surveys the history of drugs, broadly understood as any non-food substance that causes a temporary physical and/or psychological change in the consumer's body. This class focuses on the moral, legal, social, political, cultural, and economic history of several different substances (tobacco, chocolate, marijuana, alcohol, cocaine, opium, and steroids, among others) throughout history. MnTC Goal 5 and 9.

***[HIST 440] Secondary Social Studies Instruction***

Concentrates on the designing of instructional units for middle school and high school social studies' classrooms. A variety of instructional resources, teaching methodologies, and assessment techniques will be explored.

***[HIST 469] Internship***

History majors gain on-the-job experience in a supervised situation with cooperating private or public agencies. A maximum of 12 internship credits may be applied to the degree.

***[HIST 490] Topics in History***

This is a senior level topics course and may be repeated as topic varies.

***[HIST 492] Senior Seminar***

Problems in history for advanced students.

***[HIST 497] Independent Study***

Directed readings and discussion on particular topics agreed upon by instructor and student.

## Honors

***[HON 100] Introduction to Honors***

This course introduces students to the MSUM Honors Program. Subjects covered include the requirements and expectations of being an honors student, Honors resources, the history and goals of the Honors Program, and assessments of student capacities concerning those goals. The main objective will be to prepare students for the Honors Program coursework and thesis/project, which will be accomplished through formal and

informal discussions of topical issues, written assignments, guest faculty visits, off-campus visits, and reading of selected texts. Students will also be introduced to the Honors Experience requirements.

***[HON 102] Honors Encounters***

Experience the breadth of university life by attending and writing reports on any combination of at least three Honors Lectures, other lectures, performing arts, and exhibitions approved by the Honors Director or Honors Program Committee. Alternatively, Honors Encounters credits may be earned by learning abroad, conducting independent research or creative activities beyond course and major requirements, or learning foreign languages beyond major requirements. May be repeated up to eight times.

***[HON 200] Honors Colloquium in the Humanities***

This course will examine texts from a range of disciplines and periods that define "home" as well as the space of the Other. The colloquium will stress formal and informal discussion of ideas. The course is designed to synthesize skills from the Honors Foundation and serve to further develop capacity for independent thought. Building on the skills practiced in the Honors Foundation courses students will develop skills through extensive class discussion, analytical and research writing, oral report, and lecture. MnTC Goal 6.

***[HON 300] American Society***

Examines some of the major political, economic, and cultural developments in American life during roughly the past century. Possible topics include concentration of political and economic power, bureaucratization and its effects, revolutions in class structures, race and ethnicity in politics, and the consequences of the decline of American empire. MnTC Goal 5.

***[HON 301] Masterpieces of Literature***

Consists of careful reading of selected masterpieces of world literature combined with intense discussion and exchange of ideas. Possible works to be covered include selections from Homer, Dante, Shakespeare, Dostoevski, Yeats, Camus and others. May be repeated once when content changes. MnTC Goal 6.

***[HON 302] Tellings and Retellings***

This class consists of the intensive examination of certain key classic texts, such as Shakespeare's Othello, and their "retelling" in other artistic disciplines by other artists. In exploring these retellings the class examines both the formal elements of--say--musical or movement expression (to name just two) in order to understand how a written text can be "translated" into other media and also examines how the values embedded in a particular text can be altered or even transformed in another version. MnTC Goal 6.

***[HON 307] Transformation of the Roman World: 31 B.C. to A.D. 312***

An introduction to the Roman Empire, both its Eastern and Western components, as the setting in which Christianity appeared. The introduction of art, archeology, and literature as the primary sources for interpreting the growth of the Christian religion in the first three hundred years of the common era. MnTC Goal 5.

***[HON 312] Journeys in Literature: Classical and Medieval Masterpieces***

Examines variations of the journey-theme-inward quests and worldly voyages-in literary masterpieces from Classical Antiquity through the Middle Ages (to c.1400), both East and West. Texts will include The Epic of Gilgamesh, The Aeneid, Nikki, T'ang Dynasty poetry, Beowulf, The Divine Comedy, Travels of Marco Polo, and others. MnTC Goal 6.

***[HON 314] Space, Time, and Change: Revolutions in Self Perception***

This science course examines the scientific basis for three great revolutions in human understanding: The realization that the universe is very large, that it has existed for a very long time, and that every part of it changes with time (focusing in particular on changes in the stars, in the earth, and in life).

We will consider how this understanding has influenced human world views and religious beliefs. The course includes lectures and lab activities as well as open discussion of assigned readings. During discussions, students are encouraged to explore and share their own world views as well as examine the views of others. MnTC Goal 3.

***[HON 318] Issues of the Nuclear Age***

Science and mathematics are fundamental to a strong society. This course demonstrates general methods of scientific thinking that can be applied to everyday life. We will discuss concepts and principles important for making decisions about radiation and nuclear technologies, such as food irradiation, nuclear weapons, and nuclear power. In particular, you will learn about nuclear physics, and its impact on social issues. You will perform lab activities, discuss or debate ideas, and write analytical papers. MnTC Goal 3.

***[HON 324] Life and Death in the Universe***

The last century will be remembered in small part as a time when humans finally started scientifically addressing the most fundamental questions about the universe: "How did the Universe begin," "How did life on Earth begin and how might it end," and "Is there anyone out there?" Students will address these issues by reviewing our current scientific understanding of the Big Bang, the origins of life on Earth, the Evolution of Life, and the possible origins of intelligent life elsewhere. The class will be cross-disciplinary with heavy emphasis on astronomy, planetary geology, biology, and some history. In addition to in-lecture coursework, lab activities are used to provide students the opportunity to plan, design, and execute their own investigations of these scientific concepts. MnTC Goal 3.

***[HON 357] Social and Political Philosophy***

Investigation of major issues of contemporary social and political philosophy. Topics may include the justification of the state, rights, equality and liberty, the major political ideologies, feminist politics, and critical theory. Same as PHIL 357.

***[HON 385] Hiroshima Peace Studies Tour***

Students will explore the history of nuclear weapons, and discuss the roles of Hiroshima and Nagasaki today. Students will travel to Hiroshima, and will keep a journal, using this and other research done prior to the trip to develop a course project. Structured activities in Hiroshima will include visiting the Peace Park and Peace Museum, talks by scholars from Hiroshima University on peace studies topics, visits to historical and cultural sites, such as Hiroshima Castle, and the island of Miyajima. Same as PSCI 385. MnTC Goal 8.

***[HON 386] Eureka! A History of Mathematical Ideas***

We will explore the history of mathematics from ancient to modern times by using famous equations as entry points to different periods in mathematical history. Once in a period we will explore the development of mathematics at that time, the people involved in that development, the culture at the time, and then fast forward to the modern implications of that particular branch of mathematics. We will move chronologically and connect the mathematics to the development of science, politics, art, music, and many other fields.

***[HON 390] Topics in Honors***

This is an upper division topical course and may be repeated when the topic changes.

***[HON 469] Internship***

A supervised practical experience in the honors program. A maximum of 12 internship credits may be applied to the degree.

***[HON 492] Capstone in Ethics and Civil Responsibility***

The goal of this course is to produce an interdisciplinary scholarly and/or creative work, consistent with the goal of the Honors Program to develop independent thinkers capable of conveying their thoughts to a broad audience. Student paper and final grades will be determined by the quality of written work; assignments are not pro forma. As a Writing Intensive course focusing on Ethics and

Civic Responsibility, lecture and discussion will be devoted to engaging the ethical and civic responsibilities incumbent upon professionals, as well as developing individual student projects, including writing workshops, feedback sessions, and instruction in writing matters. MnTC Goal 9.

***[HON 497] Honors Capstone/Independent Study***

Independent Study

## Humanities

***[HUM 101] Humanities Through the Arts***

An introductory, chronological examination of the arts, focusing on representative works of the Western tradition with reference to historical, literary, and other cultural developments, as well as non-Western parallels. MnTC Goal 6.

***[HUM 102] Appropriation, Racism, and the Arts***

An introductory examination of fine arts and popular art focusing on representative works of the United States with reference to historical, literary, and other cultural developments. The course focuses on ways in which the arts, including music and literature, are instruments of structural racism as a source of historical and ongoing oppression of people of color. Areas of specific concern are voice appropriation, content appropriation, style appropriation, and motif appropriation. Additional focus on the intersectionality of race and other social identities, including gender and class, and on the potential for the arts to service antiracist and other liberating practices that increase equitable outcomes and inclusion in American society. MnTC Goal 7.

***[HUM 211] Perspectives on Society***

Explores visions of society (e.g. Confucius, Plato) or intercultural encounters between societies (e.g. Age of Exploration). May include works of history, literature, and political theory. MnTC Goal 6.

***[HUM 320] Humanities East and West***

To examine world literatures, arts and religions from a comparative perspective: parallels, contrasts, and intercultural influences between Asia and the West. MnTC Goal 6 and 8.

## Languages

***[LANG 190] Topics in Language***

Topics in language, literature, and culture. May be repeated since content may vary.

***[LANG 457] Second Language Acquisition & Language Teaching***

This course covers theories of language acquisition and their application to language teaching. Includes a historical overview of the field of language teaching, an examination of factors that affect language learning, and how these factors are addressed in a classroom setting. Students will be asked to articulate the philosophical basis of their own approach to language teaching.

***[LANG 469] Internship***

Elective field experience in applied foreign language under agency and departmental supervision. Opportunity to practice and integrate classroom knowledge of the four language skills. Planning must be done at least one semester prior to the internship. A maximum of 12 internship credits may be applied to the degree.

***[LANG 471] Methods and Materials in Teaching Languages I***

Theory and practice of teaching foreign languages (K-12). The course examines current and historical trends, methods, techniques, and technology. Microteaching and assessment are part of the structure of the course. Those who are seeking a MN teaching license must complete the SARTE form before taking this course. This course is required of those who seek licensure (K-12) to teach languages in the state of MN. SPAN 301 and 302 or equivalent proficient level i the language to be taught.

***[LANG 472] Methods and Materials in Teaching Languages II***

Theory and practice of teaching languages (K-12). The course examines current and historical trends, methods, techniques, and technology, with an emphasis on microteaching, assessment, and materials preparation. This course is required of those who seek licensure (K-12) to teach languages in the state of MN.

***[LANG 475] Second Language Assessment***

Theories and strategies for the assessment of second language competence, including mapping assessment to state and national proficiency guidelines and standards, conducting formal and informal classroom assessment, and becoming familiar with standardized assessments.

## Leadership

***[LEAD 301] Introduction to Leadership***

Examines the major theories and perspectives of leadership. Students will gain practical leadership skills in planning, problem solving, and strategies for accomplishing goals.

***[LEAD 498] Leadership Seminar***

Provides an opportunity for students to discuss their leadership positions on campus or in the community. Examines in greater depth issues related to ethics, leadership, and group communication. Includes academic service-learning project conducted by the class. Includes group project.

## Library

***[LIB 101] Research and Information Literacy***

Research and Information Literacy is a one-credit course designed to build students' information literacy skills. The course will introduce theoretical and practical/applied concepts regarding library research in the digital age. This includes formulating research questions; determining appropriate research strategies; selecting research tools; analyzing and selecting appropriate information including concepts such as authority, credibility and purpose; avoiding plagiarism; citing sources using a standard format; and presenting information in a meaningful way. Ownership of information, copyright, fair use and media bias analyses will also be emphasized. The course will use a mixture of videos, tutorials, readings and applied learning.

## Management

***[MGMT 229] Start Your Own Business***

This course is designed to provide students with hands-on experience and up-to-date information on how to start and set up their own business. It is co-taught by a team of experts and developed in cooperation with local business associations, the course will focus on the accounting, financial, legal, marketing and planning areas of setting up and running a start-up business. Same as ENTR 229.

***[MGMT 260] Principles of Management***

Analyzes functions of management and the forces that shape and define the manager's role. Students must have junior standing.

***[MGMT 315] Government and Business***

A survey course which includes governmental enforcement of competition, regulation of public utilities, and public enterprise. Same as ECON 315.

***[MGMT 371] Introduction to Business Analytics***

Business analytics refers to techniques used by enterprises to gain insights and make better decisions using data. It has applications in all the functional areas of an enterprise including accounting, finance, marketing, operations and strategic planning. This class is made up of three parts: i) descriptive analytics to focus on analysis of historical data; ii) predictive analytics to focus on data mining and forecasting to develop insights; and iii) prescriptive analytics to focus on optimization and simulation to select from business alternatives under constraints.

***[MGMT 380] Operations Management***

Description and analysis of the operations function in an organization.

***[MGMT 390] Topics in Management***

Topics in management. May be repeated as topic varies.

***[MGMT 415] Industrial Organization and Public Policy***

Analysis of market structure, market conduct, and economic performance. It combines the latest theories with empirical evidence about the organization of firms and industries. Same as ECON 415.

***[MGMT 416] Labor Economics***

Wage and employment theory, labor unions and other institutions associated with collective bargaining, and social legislation. Same as ECON 416.

***[MGMT 419] Supply Chain Management***

This course will analyze the supply chain from the point of view of a manager. The goal is to understand how logistical decisions impact the performance of the firm as well as the entire supply chain. The key will be to understand the link between supply chain structures and logistical capabilities in a firm or supply chain. Topics will be covered at the strategic level, planning level as well as the operational level. There will be a mix of qualities and quantitative analysis. Same as MKTG 419.

***[MGMT 433] Predictive Analytics***

Businesses are collecting and storing vast amount of data. Business intelligence (data mining) techniques are used to turn business data into valuable information and generate business intelligence, helping organizations to make effective decisions. This course will provide an understanding of various data mining techniques such as association rules, clustering, classification techniques, etc. and how to use data mining techniques to transform large and complex data into actionable information. The data mining techniques will be examined in the context of business applications such as marketing, e-commerce, finance, and retailing. (Same as MKTG 433)

***[MGMT 440] Human Resource Management***

This course covers the process of managing the human resource to achieve organizational goals. Topics include legal recruitment and selection, training and evaluation, compensation, and separation from the organization.

***[MGMT 442] Compensation & Benefits***

This course will build a strong foundation for students in making strategic choices for organizations in the areas of compensation and benefits. It will explore current legislation, compensation systems, mandatory & voluntary benefits, and administrative issues and challenges.

***[MGMT 451] Organizational Behavior***

Studies the interaction of individuals and groups in business organizations. The course focuses on providing insights into individual, group, and organizational processes.

***[MGMT 456] Project Management in Business***

This course focuses on identifying and resolving the dilemmas that cause the overwhelming majority of projects to take too long, cost too much, and fall short of expectations. Same as PMGT 456.

***[MGMT 458] International Management***

An examination of organizational management in the international environment which will focus on private and public management in the exchange of goods and services in cross cultural contexts.

***[MGMT 465] Entrepreneurship***

This is a survey course examining key elements of entrepreneurial venture. Basics of entrepreneurship will be covered. We will adopt the perspective of a global entrepreneur, who may capitalize upon resources from anywhere in the world, while facing global competition and uncertainties at any time. Specific topics this course will cover include: entrepreneurial

opportunity, feasibility analysis, business plan, planning for growth and change.

***[MGMT 469] Internship***

A supervised practical experience in management. A maximum of 12 internship credits may be applied to the degree. Prerequisite: Students must have completed 6 credits in Management beyond the Business Core courses prior to the internship.

***[MGMT 480] Prescriptive Analytics***

A study of deterministic techniques of management science such as linear programming, transportation models, assignment models. Other models may be covered as time permits.

***[MGMT 490] Topics in Management***

This is a senior level topics course and may be repeated as topic varies.

***[MGMT 492] Business Analytics Capstone***

All Analytics students will participate in the Capstone course typically during their final semester at MSUM. The purpose of the capstone is for students to undertake a group project(s) that applies and synthesizes what they have learned in their major (including but not limited to database management, data analysis techniques and business decisions making) to real life analytics problems. By allowing small teams of students to work collaboratively throughout the class, the Capstone course emphasizes teamwork and encourages the kind of cooperation needed to flourish in today's current professional managerial environment. The course will be taught by a multi-disciplinary faculty team drawn from different areas of expertise in Analytics. Students will attend scheduled class sessions to think critically about analytical and decision making issues and to be creative problem solvers as they navigate challenging project(s). This capstone will culminate with a written project report and an oral presentation of their work to the students and faculty of the Analytics program, usually during the last two weeks of the semester.

***[MGMT 497] Independent Study***

Individual inquiry into an aspect of Business Administration not covered in the regular curriculum.

***[MGMT 498] Strategic Management***

Students take a top management perspective in studying strategic management principles, concepts and analytical techniques. Strategic management entails the analysis of internal and external environments of a firm to maximize the utilization of resources in relation to objectives. This capstone course will be taken after completion of all other business core courses.

## Marketing

***[MKTG 270] Principles of Marketing***

Examining the process of planning and executing the conception, pricing, promotion, and distribution of ideas, goods, and services to create exchanges that satisfy individual and organizational objectives. Prerequisite can be waived with consent of the instructor.

***[MKTG 311] Marketing Management***

An examination of practical marketing problems with a focus on analysis, planning, implementation, and control of worldwide marketing programs for the purpose of achieving an organization's objectives.

***[MKTG 317] Services Marketing***

This course is designed to provide knowledge needed to implement quality service and service strategies for competitive advantage across industries. The foundation of the course is the recognition that services present special challenges that must be identified and addressed.

***[MKTG 325] Digital Marketing***

The Internet is a dynamic marketplace if there ever was one. This class will give you the theoretical understanding of the Internet marketplace necessary to adapt to its many changes, while also equipping you with the skills you will need to perform vital daily functions. By the end of the

course, you will be able to walk into any company with an online presence and improve their use of the Internet. The course examines digital marketing strategy, implementation and executional considerations for B-to-B and B-to-C brands and provides a detailed understanding of all digital channels and platforms. Students will complete the course with a comprehensive knowledge of and experience with how to develop an integrated digital marketing strategy, from formulation to implementation.

***[MKTG 330] Personal Selling***

Utilizing the behavioral sciences to analyze the interpersonal influence process whereby potential buyers and sellers interact for the purpose of completing exchanges of goods and services. Prerequisite can be waived with consent of the instructor. Same as COMM 366.

***[MKTG 390] Topics in Marketing***

Topics in Marketing. Course may be repeated when topic changes.

***[MKTG 419] Supply Chain Management***

This course will analyze the supply chain from the point of view of a manager. The goal is to understand how logistical decisions impact the performance of the firm as well as the entire supply chain. The key will be to understand the link between supply chain structures and logistical capabilities in a firm or supply chain. Topics will be covered at the strategic level, planning level as well as the operational level. There will be a mix of qualities and quantitative analysis. Same as MGMT 419.

***[MKTG 421] Consumer Behavior***

Using concepts drawn from the behavioral sciences to understand those activities people undertake when obtaining, consuming, and disposing of products and services.

***[MKTG 423] Marketing Communications***

A survey of the elements of promotion -- advertising, public relations, sales promotion, and personal selling -- with a strong emphasis on the strategic integration of these methods to achieve synergy in their application in the marketplace. Same as COMM 423.

***[MKTG 433] Predictive Analytics***

Businesses are collecting and storing vast amount of data. Business intelligence (data mining) techniques are used to turn business data into valuable information and generate business intelligence, helping organizations to make effective decisions. This course will provide an understanding of various data mining techniques such as association rules, clustering, classification techniques, etc. and how to use data mining techniques to transform large and complex data into actionable information. The data mining techniques will be examined in the context of business applications such as marketing, e-commerce, finance, and retailing. (Same as MGMT 433)

***[MKTG 444] International Marketing***

Comprehensive study of the cultural, political, and economic factors affecting international marketing strategies.

***[MKTG 451] Marketing Research I***

This course is designed to provide an introduction to methodological issues relevant to marketing research. Students will learn basic elements of research methods, constructs, measures, data collection and analysis, and other elements of marketing research. While the underlying objective of this course is to familiarize you with basic tools in scientific methods (e.g., statistics). Marketing Research is a keystone to all marketing activities. This course specifically explores what methods exist to conduct marketing research, how to recognize effective and ineffective research, and how to analyze, interpret, and apply research results.

***[MKTG 452] Marketing Research II***

The design of this course helps students develop methods for collecting, analyzing, and interpreting

data relevant to the marketing decision-making process. The purpose of this course is to investigate the issues based on observations and secondary databases. In line with the nature of reality in marketing research, this course is a team-based project-intensive course. This course expects students to have a marketing mindset as a marketing consultant and a statistic/analytic skill set in general. The course covers a gamut of marketing research process.

***[MKTG 465] Entrepreneurship***

This is a survey course examining key elements of entrepreneurial venture. Basics of entrepreneurship will be covered. We will adopt the perspective of a global entrepreneur, who may capitalize upon resources from anywhere in the work, while facing global competition and uncertainties at any time. Specific topics this course will cover include: entrepreneurial opportunity, feasibility analysis, business plan, planning for growth and change.

***[MKTG 469] Internship***

A supervised practical experience in marketing. A maximum of 12 internship credits may be applied to the degree. Students must have completed 6 credits in Marketing beyond MKTG 310 prior to the internship.

***[MKTG 490] Topics in Marketing***

This is a senior level topics course and may be repeated as topic varies.

***[MKTG 497] Independent Study***

Individual inquiry into theoretical or applied aspects of marketing not covered in regular curriculum.

## Mathematics

***[MATH 090] Elementary Algebra***

The course introduces operations and evaluating expressions involving real numbers, exponents and radicals. Solving linear, absolute value and quadratic equations, and linear and compound inequalities is also studied. Emphasis is given to procedural skills to help develop the conceptual skills needed for application and interpretation of results including graphing and problem solving skills. Credits apply towards full-time status but do not apply towards graduation.

***[MATH 090A] Elementary Algebra***

The course introduces operations and evaluating expressions involving real numbers, exponents and radicals. Solving linear, absolute value and quadratic equations, and linear and compound inequalities is also studied. Emphasis is given to procedural skills to help develop the conceptual skills needed for application and interpretation of results including graphing and problem solving skills. Credits apply towards full-time status but do not apply towards graduation.

***[MATH 095] Elementary/Intermediate Algebra***

This course is a combination of the content of Elementary Algebra and Intermediate Algebra and will be offered in a synchronous Accelerated hybrid format. Upon completion of the course, the student will be prepared for College Algebra. Topics covered will include signed numbers, radicals, exponents, algebraic fractions, products and factoring, graphing lines, solving linear equations and quadratic equations, polynomials, functions, systems of equations, linear inequalities, and absolute value equations and inequalities. Credits apply towards full-time status but do not apply towards graduation.

***[MATH 099] Intermediate Algebra***

Exponents, algebraic fractions, polynomials, functions, graphing lines, linear and quadratic equations, systems of equations, radicals, linear inequalities, absolute value equations and inequalities. Credits apply towards full-time status but do not apply towards graduation.

***[MATH 101] Foundations of Mathematical Success***

This course begins one week before Fall semester begins. During the first week of the course, students meet twice a day for an hour each. In the

first hour, the students will work together on math projects to help them develop a connection between social interaction and problem solving. In the second hour, students will practice foundational skills that will prepare them for the Math course they will take in the following fall semester. During the fall semester, this class will meet twice a week in 75 minute periods that will focus on mathematical success, college success, and breaking common barriers to success in mathematics courses. MnTC Goal 2.

***[MATH 105] Contemporary Mathematics***

Topics selected from various areas of mathematics, showing the scope and power of mathematics and emphasizing mathematical methods and basic data analysis. Topics include voting analysis, basic financial mathematics, and basic statistics and data analysis with an emphasis on critical thinking. Not intended to prepare students for any subsequent course. MnTC Goal 4.

***[MATH 105C] Contemporary Mathematics Supplement***

The course will provide prerequisite review and support for MATH105 Contemporary Mathematics. Topics include operations with rational numbers, evaluating expressions and formulas, unit conversions, interpreting and organizing data utilizing graphs, tables and linear equations. Emphasis is given to procedural skills to manipulating and evaluating formulas, and utilizing interval notation and interpreting algebraic notations and symbols.

***[MATH 110] Introduction to Mathematics***

Algebra, sets, probability, and statistics. Computational proficiency will be assessed and mastery required. Must have successfully completed Elementary Algebra or Intermediate Algebra or an acceptable placement score. MnTC Goal 4.

***[MATH 110C] Introduction to Mathematics Supplement***

The course will provide prerequisite review and support for MATH 110 Introduction to Mathematics. Topics include arithmetic operations and evaluating expressions involving real numbers and solving linear equations and inequalities and quadratic equations, statistics, probability and sets. Emphasis will be given to skills needed to successfully complete the Computational Mastery Exam, apply problem solving strategies and algebra concepts. Review and supplementary 'just-in-time' instruction and activities to correspond and enhance the students understanding of the topics being covered in MATH 110. As the MATH 110 progresses, this co-requisite will offer supplementary instruction for MATH 110 topics.

***[MATH 127] College Algebra***

Exponents, factoring, equations, inequalities, systems of equations, functions, exponential and logarithmic functions, polynomials and rational functions. Must have successfully completed Intermediate Algebra or have an acceptable placement score. MnTC Goal 4.

***[MATH 127C] College Algebra Supplement***

The course will provide prerequisite review and support for MATH127 College Algebra. This course is designed to support students concurrently enrolled in MATH127 by providing additional focus on MATH127 topics and just-in-time review of prerequisite topics. Topics include review of properties of real numbers, functions, algebra of functions, inequalities, polynomials and factoring, rational expressions and equations, radical expressions and equations, quadratic functions and their graphs, solving quadratic equations, and exponential functions. As the MATH127 progresses, this corequisite will offer supplementary instruction for MATH127 topics.

***[MATH 134] Applied Statistics***

Frequency distributions, introduction to probability, normal distribution, central limit theorem, estimation, tests of hypotheses, non-parametric techniques, design of experiments, one-way and two-way analysis of variance, and simple linear regression. MnTC Goal 4

***[MATH 134C] Applied Statistics Supplement***

The course will provide prerequisite review and support for MATH134 Applied Statistics. Topics include operations with rational numbers, evaluating expressions and formulas, unit conversions, interpreting and organizing data utilizing graphs, tables and linear equations. Emphasis is given to procedural skills to manipulating and evaluating formulas, and utilizing interval notation and interpreting algebraic notations and symbols.

***[MATH 142] Pre-Calculus***

Includes equations, complex numbers, functions, polynomials, exponential and logarithmic functions, and trigonometric functions, equations and applications. Must have successfully completed College Algebra or acceptable placement score. MnTC Goal 4.

***[MATH 143] Trigonometry***

Trigonometric functions, identities, applications. Must have successfully completed College Algebra or acceptable placement score. MnTC Goal 4.

***[MATH 210] Concepts from Discrete Mathematics***

Logic and truth tables, sets, mathematical induction, graphs, trees, and related topics from the field of Discrete Mathematics. MnTC Goal 4.

***[MATH 227] Survey of Differential Calculus with Algebra***

Review of topics in college algebra with emphasis on solving systems of equations with unique solutions, under determined and overdetermined systems. Introduction to matrices, multiplication of matrices and inverse of a square matrix with emphasis on systems of equations and applications. Derivatives, applications of differentiation and optimization. Not open to mathematics majors or minors. Must have successfully completed MDEV 099 or acceptable placement score. MnTC Goal 4.

***[MATH 229] Topics in Calculus***

Introduction to differential and integral calculus with an emphasis on applications. Introduction to matrices and their applications. Not open to mathematics majors or minors. Must have successfully completed College Algebra or acceptable placement score. Requires a C- or better in MATH 127. MnTC Goal 4.

***[MATH 234] Introduction to Probability and Statistics***

Measures of central tendency and variation, probability, probability distributions, sampling distributions and the central limit theorem, estimation and tests of hypotheses for population mean and population proportion, and simple linear regression. May not be taken for credit by those who earned credit in MATH 336. Students who have completed MATH 262 are encouraged to take MATH 335 rather than MATH 234. Must have successfully completed College Algebra or acceptable placement score. MnTC Goal 4.

***[MATH 235] Introduction to R***

R is statistical software commonly used in many fields. The student will learn to write R programs that access data from multiple sources, generate output, and manipulate different types of R objects, and learn how to handle data structures such as vectors, matrices, data frames and lists, how to analyze data, create visualizations, and write flexible R functions by using different types of control structures.

***[MATH 260] Computer Calculus***

Introduction to applications of computer software to calculus. Students must either have taken, or be concurrently enrolled in, Math 261.

***[MATH 261] Calculus I***

Calculus of one variable-differentiation, introduction to the integral. Students entering Math 261 should have a solid background in algebra and trigonometry. Must have successfully completed College Algebra and Trigonometry or acceptable placement score. MnTC Goal 4.

***[MATH 262] Calculus II***

Calculus of one variable-transcendental functions, applications of integrals, techniques of integration, infinite series. MnTC Goal 4.

***[MATH 290] Topics in Mathematics***

This is a topical course in mathematics. The course may be repeated when the topic is different.

***[MATH 291] LaTeX***

An introduction to LaTeX, a mathematical typesetting language, including page layout commands, typesetting formulae, enumerated lists, tables, arrays, graphics, plus other packages and specialized document classes.

***[MATH 302] Mathematics for Early Childhood***

Development of numeration systems, whole number, integer, rational numbers, geometry, and measurement. The content focuses on appropriate representations and models specifically tied to early childhood education. Open only to majors in Early Childhood Education. Does not substitute for MATH 303 or 304. This course does not apply to the mathematics major or minor requirements.

***[MATH 303] Foundations of Number Systems***

Sets; systems of numeration; whole number, integer, and rational number operations and properties. Particularly appropriate for early childhood, elementary, and special education majors. This course does not apply to the mathematics major or minor requirements.

***[MATH 304] Informal Geometry***

Fundamental concepts of plane and solid geometry, measurement, probability, and statistics. Particularly appropriate for early childhood and elementary education majors. Students must have completed MATH 303 with a grade of "C-" or higher. Not open to mathematics majors or minors.

***[MATH 311] Introduction to Proof and Abstract Mathematics***

Logic, rules of inference, methods of proof including direct and indirect methods, sets, functions, and mathematical relations and properties of relations. Calculus II must be taken prior to or with Math 311.

***[MATH 316] Teaching Mathematics in the Middle Grades***

Materials and methods of teaching mathematics in grades 5-8. Open only to math majors with a concentration in teaching and to elementary education majors with a specialty in mathematics. In addition to those students who have completed the listed prerequisites, students who are majoring in secondary math education and who have Junior standing may take this course.

***[MATH 321] Financial Mathematics***

The purpose of this course is to provide an understanding of the fundamental concept of financial mathematics, and how those concepts are applied in calculating present and accumulated values for various streams of cash flows. Reserving, valuation, pricing, asset/liability management, investment income, capital budgeting, and valuing contingent cash flows will be discussed. An introduction to financial instruments and the concept of no-arbitrage as it relates to financial mathematics will be given. This course covers topics of CAS/SOA Actuarial Exam 2/FM.

***[MATH 323] Multi-Variable and Vector Calculus***

Calculus of several variables-- partial differentiation, multiple integration, vector calculus, line and surface integrals, Green's Theorem, and Stoke's Theorem. Students must have taken, or be currently enrolled in, Math 260.

***[MATH 327] Introduction to Linear Algebra***

Systems of linear equations, Gauss-Jordan elimination, linear programming, matrices, determinants, vector spaces, linear transformations, and eigenvectors.

***[MATH 335] Intermediate Probability and Statistics I***

Probability, probability distributions of discrete random variables, probability density functions,

expected value and variance, sampling distributions and central limit theorem, point and interval estimation, and tests of hypotheses for the population mean. Simple linear regression, one factor ANOVA and ANOVA for regression.

***[MATH 336] Intermediate Probability and Statistics II***

This course covers the theory and applications of linear regression models, generalization linear models, tree-based models, autoregressive and forecasting time series models. Topics includes parameter estimations, variables selection, model validation and diagnose, statistical inference and predictions. Student will learn basic R programming language and practically implement the models with real data in the actuarial science contexts. The course covers the topics as required in the Statistics for Risk Modeling (SRM) Exam offered by the Society of Actuaries (SOA) and prepare students for the SRM exam.

***[MATH 355] Mathematical Modeling***

Techniques of developing and analyzing mathematical descriptions of physical phenomena.

***[MATH 361] Intermediate Analysis I***

A rigorous treatment of concepts of calculus and foundations of mathematics including logic and sets, Bolzano-Weierstrass Theorem, limits, Heine-Borel Theorem, continuity, and derivative.

***[MATH 362] Intermediate Analysis II***

A continuation of the rigorous treatment of concepts of calculus and foundations of mathematics including the Riemann integral, infinite series, sequences of functions and uniform convergence.

***[MATH 366] Differential Equations***

Classify a differential equation. Solve a variety of ordinary differential equations and initial value problems using a variety of techniques, including finding exact solutions, numerical solutions, and power series solutions. Be able to discern qualitative information from a differential equation without finding an explicit or implicit solution. Students must meet the prerequisite or be concurrently enrolled in MATH 323.

***[MATH 386] Eureka! A History of Mathematical Ideas***

We will explore the history of mathematics from ancient to modern times by using famous equations as entry points to different periods in mathematical history. Once in a period we will explore the development of mathematics at that time, the people involved in that development, the culture at the time, and then fast forward to the modern implications of that particular branch of mathematics. We will move chronologically and connect the mathematics to the development of science, politics, art, music, and many other fields.

***[MATH 390] Topics in Mathematics***

This is an upper division topical course that may be repeated when topics changes.

***[MATH 392] Sophomore Seminar***

Students will attend lectures where they will be exposed to research level mathematics and general interest topics. The students will also attend lectures given by their classmates.

***[MATH 397] Independent Study***

Individual study, project, or research of special interest agreed upon by student and instructor. Requires approval of department chair and dean.

***[MATH 402] Mathematics for Special Education***

Development of number, algebra, geometry and measurement content along with methods for teaching mathematics in special education setting. Open only to majors and minors in special education. Does not substitute for MATH 406.

***[MATH 406] Mathematics in the Elementary School***

Materials and methods of teaching elementary school mathematics. Open only to elementary education majors. Taught as part of PFY.

Prerequisites: MATH 303 and 304 with grades of "C" or higher.

***[MATH 407] Add+VantageMR® I: Math Recovery Strategies for the Classroom***

Add+VantageMR® (AVMR): Math Recovery® Strategies for Elementary Classrooms 1 includes dynamic, diagnostic, individual assessments in number words and numerals, structuring numbers, and addition and subtraction strategies. The assessment, data collecting, and teaching tools accelerate the educator's ability to recognize the students' current levels of numeracy understanding to make data-driven instructional decisions. AVMR is beneficial for anyone working or supervising others in mathematics. It is most appropriate for pre-kindergarten through elementary educators.

***[MATH 408] Add+VantageMR® 1: Math Recovery Strategies for Special Education***

Add+VantageMR® (AVMR): Math Recovery® Strategies for Elementary Classrooms 1 includes dynamic, diagnostic, individual assessments in number words and numerals, structuring numbers, and addition and subtraction strategies. The assessment, data collecting, and teaching tools accelerate the educator's ability to recognize the students' current levels of numeracy understanding to make data-driven instructional decisions. Specific assessments & strategies for students receiving special education services will be taught and co-teaching between the general education and special education teachers will be modeled.

***[MATH 411] Introduction to Combinatorics***

Permutations, Binomial Coefficients, Algebraic and Combinatorial Proof Techniques, Multinomial Coefficients, The Pigeonhole Principle, The Principle of Inclusion and Exclusion, Ordinary Generating Functions, Exponential Generating Functions, Integer Partitions, Set Partitions, Stirling Numbers of the First and Second Kind, and Bell Numbers.

***[MATH 415] Tools & Technology for Secondary Mathematics***

This course is designed to educate pre-service secondary teachers of mathematics in the integration of instructional technology to aid in the teaching and learning of mathematics. This will involve students to acquire and demonstrate expertise with software, apps, and calculators. Develop mathematics lessons using information from discussion and research. These lessons will involve students in an active and meaningful mathematical learning experience involving instructional technology.

***[MATH 416] Mathematics in the Secondary School***

Objectives, methods, materials, and evaluation of teaching mathematics in grades 9-12. This course is the upper division writing course for BS majors in mathematics with the emphasis in teaching. Students in this course must have junior standing.

***[MATH 421] Actuarial Science I***

Applications and synthesis of mathematical and statistical concepts included in the Actuarial Examination I, administered by the Society of Actuaries. Linear time series models, seasonal models, stationary models, moving average, autoregressive and ARIMA models, model identification, confidence intervals and testing, forecasting and error analysis.

***[MATH 427] Linear Algebra II***

In this course, students will learn about vector spaces, including subspaces, sums, direct sums, span, linear independence, bases and dimensions. Students will understand the relationship between matrices and linear transformations including, eigenvectors, eigenspaces, the characteristic polynomial, Jordan form, determinants and trace.

***[MATH 435] Mathematical Statistics I***

Discrete and continuous probability distributions, marginal and conditional densities, moment generating functions, transformations, and limiting distributions. Sampling distributions, parametric point estimation and tests of hypotheses.

***[MATH 436] Mathematical Statistics II***

Students will learn the theoretical aspects of estimation and hypotheses testing procedures, and their applications.

***[MATH 438] Fundamentals of Actuarial Mathematics***

This course provides an introduction to both short-term and long-term insurance. The short-term section provides an introduction to the feature of insurance and reinsurance coverage, severity, frequency and aggerate models and covers the foundational principles of ratemaking and reserving. It introduces methods to calculate premiums and reserves and to value simple option and derivatives. The concepts of credibility and the application of credibility in some practical settings are covered. The parameters estimation for parametric models are also covered. The long-term section introduces the key features of long-term insurance coverages and retirement financial security programs. It develops knowledge of the theoretical basis of contingent payment models and the application of those models to insurance and other financial risks. Concepts concerning parametric and non-parametric mortality models for individual lives, calculations on the present value random variables associated with benefits and expenses, premium and policy values for long term insurance coverage are covered.

***[MATH 450] Numerical Analysis I***

Numerical solutions to systems of equations and differential equations, finite differences, interpolation formulas, numerical calculus, and approximating functions.

***[MATH 466] Differential Equations II***

A continuation of MATH 366. The students will learn more advanced techniques for solving differential equations and modeling using differential equations. Students will also learn about partial differential equations and some basic solutions to them.

***[MATH 469] Internship***

A supervised practical experience in mathematics. A maximum of 12 internship credits may be applied to the degree.

***[MATH 476] Abstract Algebra I***

Groups, rings and integral domains studied as abstract mathematical systems. Lagrange's theorem, factor groups, homomorphisms, polynomial rings and quotient rings.

***[MATH 477] Abstract Algebra II***

Fields, Field Extensions, Galois Theory, Sylow Theorems, Finite Simple Groups, Generators and Relations and Cayley Graphs of Groups.

***[MATH 486] History of Mathematics***

Topical and chronological survey of the main branches of mathematics. Required for Math Education majors. May not be used as a restricted elective for any other emphasis nor for the B.A. degree in mathematics.

***[MATH 487] Foundations of Geometry***

Systems of geometry such as Euclidean, non-Euclidean, coordinate, synthetic, transformational and projective. Models in geometric systems.

***[MATH 490] Topics in Mathematics***

This is an upper division topical course that may be repeated when topics changes.

***[MATH 491] Mathematical Writing***

This is a writing intensive and capstone research course in Mathematics. It is intended to teach students how to research a mathematical topic and produce a written report on their research that is sufficiently deep, respects audience, and maintains clarity.

***[MATH 492] Senior Seminar***

Students will attend lectures where they will be exposed to research level mathematics and general interest topics. The students will also attend lectures given by their classmates.

***[MATH 497] Independent Study***

Individual study, project, or research of special interest agreed upon by student and instructor. Requires approval of department chair and dean.

## Music

***[MUS 107A] Music Theory I***

The first semester of the core sequence of theory courses for music majors. Pitch and rhythmic notation, intervals, scales, triadic harmony, dominant seventh chords, chord function/pluralities and beginning work in four-voice writing will be the focus.

***[MUS 107B] Aural Skills I***

Beginning work in the areas of sight singing (solfege), transcription (dictation), error detection and rhythmic drills.

***[MUS 108A] Music Theory II***

Four-voice writing in Baroque chorale style. Diatonic Harmony, non-harmonic tones, principles of harmonic progression, modulation to closely related keys, secondary dominant/diminished chords, harmonic implications of the melodic minor scale, motivic development and an introduction to jazz/commercial harmonies and chord symbol nomenclature.

***[MUS 108B] Aural Skills II***

Continued work in the areas of sight singing (solfege), transcription (dictation), error detection and rhythmic drills focusing more on minor mode melodies/harmonies and basic modulatory concepts.

***[MUS 110] Musicianship for Non-Majors***

Fundamentals of music notation, music reading, and theory. Creative application through composition and performance. Assumes minimal previous musical experience.

***[MUS 111] The Art of Listening***

Designed for non-majors. An introduction to music appreciation. Introduces the main elements of music, such as melody, harmony, rhythm, timbre, and form. Students will develop a vocabulary to discuss their experience of music. Students will listen to a broad repertory of music examples. MnTC Goal 6.

***[MUS 117] Guitar for Non-Majors***

This course provides an introduction to basic guitar performance techniques. Students need no prior study on the guitar to take this course. Students will be introduced to commonly used chords, scales, arpeggios, and right hand patterns through the use of standard notation and tablature.

***[MUS 140] Thinking Musically: Critical Thinking in Multi-musical America***

This course focuses on critical thinking skills using American music as a means for examining assumptions, arguments and cultural images. MnTC Goal 2.

***[MUS 150A] Class Piano***

Class instruction. Entry level piano course focusing on basic technique, primary chords and harmonizing. Intended for music majors/minors with limited background in applied piano instruction.

***[MUS 150B] Class Piano II***

Class instruction. Continuation of Mus 150A. Further development of piano technique, physical coordination and independence between the hands. Study of major scales and beginning level standard piano literature.

***[MUS 150C] Class Piano III***

Small group piano instruction. Continuation of Mus 150B. Study of beginning level classical repertoire, technique, and skills related to the Piano Proficiency examination.

***[MUS 150D] Class Piano IV***

Small group piano instruction. Continuation of Mus 150C. Study of beginning/intermediate level

classical repertoire, technique, and skills related to the Piano Proficiency examination.

***[MUS 151] Basic Commercial Keyboard***

Small group keyboard instruction. Study of beginning/intermediate level popular repertoire, technique, and skills related to the Music Industry/Jazz portions of the Piano Proficiency requirements.

***[MUS 152] Class Voice***

Class instruction. Designed for students with limited background in applied voice instruction. May be repeated for credit.

***[MUS 154A] Music Performance: Voice: Level 1***

Large group instruction. May be repeated for credit.

***[MUS 154B] Music Performance: Voice: Level 1***

Individual tradition vocal instruction and master classes. May be repeated for credit.

***[MUS 155A] Music Performance: Piano: Level 1***

Individual or small group (2 or 3 people) instruction and master classes. May be repeated for credit.

***[MUS 155J] Jazz Piano***

Individual instruction and master classes. May be repeated for credit.

***[MUS 156A] Music Performance: Trumpet: Level 1***

Individual or small group (2 or 3 people) instruction and master classes. May be repeated for credit.

***[MUS 156B] Music Performance: Horn: Level 1***

Individual or small group (2 or 3 people) instruction and master classes. May be repeated for credit.

***[MUS 156C] Music Performance: Trombone: Level 1***

Individual or small group (2 or 3 people) instruction and master classes. May be repeated for credit.

***[MUS 156D] Music Performance: Euphonium: Level 1***

Individual or small group (2 or 3 people) instruction and master classes. May be repeated for credit.

***[MUS 156E] Music Performance: Tuba: Level 1***

Individual or small group (2 or 3 people) instruction and master classes. May be repeated for credit.

***[MUS 157A] Music Performance: Flute: Level 1***

Individual or small group (2 or 3 people) instruction and master classes. May be repeated for credit.

***[MUS 157B] Music Performance: Oboe: Level 1***

Individual or small group (2 or 3 people) instruction and master classes. May be repeated for credit.

***[MUS 157C] Music Performance: Clarinet: Level 1***

Individual or small group (2 or 3 person) instruction and master classes. May be repeated for credit.

***[MUS 157D] Music Performance: Bassoon: Level 1***

Individual or small group (2 or 3 person) instruction and master classes. May be repeated for credit.

***[MUS 157E] Music Performance: Saxophone: Level 1***

Individual or small group (2 or 3 people) instruction and master classes. May be repeated for credit.

***[MUS 158A] Music Performance: Violin: Level 1***

Individual or small group (2 or 3 people) instruction and master classes. May be repeated for credit.

***[MUS 158B] Music Performance: Viola: Level 1***

Individual or small group (2 or 3 people) instruction and master classes. May be repeated for credit.

***[MUS 158C] Music Performance: Cello: Level 1***

Individual or small group (2 or 3 people) instruction and master classes. May be repeated for credit.

***[MUS 158D] Music Performance: Bass: Level 1***

Individual or small group (2 or 3 people) instruction and master classes. May be repeated for credit.

***[MUS 158E] Music Performance: Guitar for Music Industry: Level 1***

Large group instruction. May be repeated for credit.

***[MUS 158F] Music Performance: Guitar: Level 1***

Individual instruction and master classes. May be repeated for credit.

***[MUS 159] Music Performance: Percussion: Level 1***

Individual or small group (2 or 3 people) instruction and master classes. May be repeated for credit.

***[MUS 187] Jazz Fundamentals***

Theoretical, aural and performance skills essential to the jazz lexicon with a particular focus on preparing the student for successful study in the areas of jazz improvisation, composition and arranging.

***[MUS 190] Topics in Music***

This is a topical course and may be repeated when the topic changes.

***[MUS 191] Diction***

Instruction for voice students in the proper pronunciation of English, Liturgical Latin, Italian, German and French for solo song and choral singing. Introduction to the International Phonetic Alphabet for notation of speech sounds.

***[MUS 197] Independent Study***

Directed study of particular topics in music agreed upon by instructor and student.

***[MUS 207A] Music Theory III***

Studies in chromatic tonal harmony concepts of the Classic and Romantic Periods and a study of musical forms through analysis.

***[MUS 207B] Aural Skills III***

Continued work in the areas of sight singing (solfege), transcription (dictation), error detection and rhythmic drills focusing more on chromatic harmonic and melodic concepts.

***[MUS 208] Theory and Ear Training IV***

Studies in compositional techniques of the 20th and 21st centuries through analysis and imitative composition projects. From modality to sound mass, students will study important scores and write compositions in important styles of the period.

***[MUS 215] History of Jazz***

Designed for non-majors. A survey of the development of jazz from its roots through the contemporary period. Emphasis will be placed on stylistic changes. Music 111 is recommended as a preliminary course. MnTC Goal 6.

***[MUS 217] Pop/Rock Music for Non-Majors***

Designed for non-majors. Survey of pop/rock music from 1956 to the present. Emphasis placed on identifying styles and songwriting techniques of various musicians. MnTC Goal 6.

***[MUS 231] Methods for Teaching Woodwinds I***

Methods and materials for teaching individual woodwind instruments in the public schools. Focus on clarinet and saxophone.

***[MUS 232] Methods for Teaching Woodwinds II***

Methods and materials for teaching individual woodwind instruments in the public schools. Focus on flute, oboe, and bassoon.

***[MUS 233] Methods for Teaching Brass Instruments***

Methods and materials for teaching individual brass instruments in the public schools.

***[MUS 234] Methods for Teaching String Instruments***

Methods and materials for teaching individual string instruments in the public schools.

***[MUS 235] Methods for Teaching Percussion***

Methods and materials for teaching individual percussion instruments in the public schools.

***[MUS 240] American Music***

Historical survey of music in the United States, including folk, popular and art music of the African American, Latino, Native American and European traditions. MnTC Goal 6 and 7.

***[MUS 254] Music Performance: Voice: Level 2***

Individual instruction and master classes. May be repeated for credit.

***[MUS 255A] Music Performance: Piano: Level 2***

Individual instruction and master classes. May be repeated for credit. Students must complete the piano proficiency exam prior to enrolling in this class.

***[MUS 255J] Jazz Piano***

Individual instruction and master classes. Students must complete the piano proficiency exam prior to enrolling in this class. May be repeated for credit.

***[MUS 256A] Music Performance: Trumpet: Level 2***

Individual instruction and master classes. May be repeated for credit.

***[MUS 256B] Music Performance: Horn: Level 2***

Individual instruction and master classes. May be repeated for credit.

***[MUS 256C] Music Performance: Trombone: Level 2***

Individual instruction and master classes. May be repeated for credit.

***[MUS 256D] Music Performance: Euphonium: Level 2***

Individual instruction and master classes. May be repeated for credit.

***[MUS 256E] Music Performance: Tuba: Level 2***

Individual instruction and master classes. May be repeated for credit.

***[MUS 257A] Music Performance: Flute: Level 2***

Individual instruction and master classes. May be repeated for credit.

***[MUS 257B] Music Performance: Oboe: Level 2***

Individual instruction and master classes. May be repeated for credit.

***[MUS 257C] Music Performance: Clarinet: Level 2***

Individual instruction and master classes. May be repeated for credit.

***[MUS 257D] Music Performance: Bassoon: Level 2***

Individual instruction and master classes. May be repeated for credit.

***[MUS 257E] Music Performance: Saxophone: Level 2***

Individual instruction and master classes. May be repeated for credit.

***[MUS 258A] Music Performance: Violin: Level 2***

Individual instruction and master classes. May be repeated for credit.

***[MUS 258B] Music Performance: Viola: Level 2***

Individual instruction and master classes. May be repeated for credit.

***[MUS 258C] Music Performance: Cello: Level 2***

Individual instruction and master classes. May be repeated for credit.

***[MUS 258D] Music Performance: Bass: Level 2***

Individual instruction and master classes. May be repeated for credit.

***[MUS 258F] Music Performance: Guitar: Level 2***

Individual instruction and master classes. May be repeated for credit.

***[MUS 259] Music Performance: Percussion: Level 2***

Individual instruction and master classes. May be repeated for credit.

***[MUS 287] Commercial/Jazz Improvisation and Theory I***

This is the first course in a three-semester sequence covering principles of melodic improvisation in commercial and jazz styles. Basic commercial/jazz theory concepts relating to this material will be covered concurrently.

***[MUS 290] Topics in Music***

This is a topical course in music and may be repeated when the topic changes.

***[MUS 297] Independent Study***

Directed study of particular topics in music agreed upon by instructor and student.

***[MUS 300] Basic Conducting***

Development of fundamental conducting technique, score reading and group leadership skills.

***[MUS 303] History of Western Music to 1750***

Historical survey of Western art music of the Medieval, Renaissance and Baroque periods of music history with focus on styles, genres and historical context.

***[MUS 304] History of Western Music since 1750***

Historical survey of Western art music traditions of the Classical, Romantic and Modern periods with a focus on styles, genres and historical context.

***[MUS 316] World Music Survey***

An introduction to the varied music repertories of the world. Similarities to and differences from Western musical culture will be noted, as well as cross influences between the repertories. MnTC Goal 8.

***[MUS 319] Music for Classroom Teachers***

Basic musicianship skills and theory developed through vocal, keyboard, and recorder experiences. Examination of teaching methods and materials, learner outcomes and assessment. Required for elementary education majors. Not intended for music majors or minors.

***[MUS 320A] University Choir (non-LASC)***

Preparation, examination, discussion, and public performance of musical works appropriate for ensemble without the research and writing assignments necessary to receive LASC credit. Student should be enrolled in this ensemble credit if they only wish to perform in an ensemble and do NOT intend to receive LASC credit.

***[MUS 320B] Concert Choir (non-LASC)***

Preparation, examination, discussion, and public performance of musical works appropriate for ensemble without the research and writing assignments necessary to receive LASC credit. Student should be enrolled in this ensemble credit if they only wish to perform in an ensemble and do NOT intend to receive LASC credit.

***[MUS 320C] Orchestra (non-LASC)***

Preparation, examination, discussion, and public performance of musical works appropriate for ensemble without the research and writing assignments necessary to receive LASC credit. Student should be enrolled in this ensemble credit if they only wish to perform in an ensemble and do NOT intend to receive LASC credit.

***[MUS 320D] Drumline (non-LASC)***

Preparation, examination, discussion, and public performance of musical works appropriate for ensemble without the research and writing assignments necessary to receive LASC credit. Student should be enrolled in this ensemble credit if they only wish to perform in an ensemble and do NOT intend to receive LASC credit.

***[MUS 320E] String Orchestra (non-LASC)***

Preparation, examination, discussion, and public performance of musical works appropriate for

ensemble without the research and writing assignments necessary to receive LASC credit. Student should be enrolled in this ensemble credit if they only wish to perform in an ensemble and do NOT intend to receive LASC credit.

***[MUS 320F] Percussion Ensemble (non-LASC)***

Preparation, examination, discussion, and public performance of musical works appropriate for ensemble without the research and writing assignments necessary to receive LASC credit. Student should be enrolled in this ensemble credit if they only wish to perform in an ensemble and do NOT intend to receive LASC credit.

***[MUS 320G] Wind Ensemble (non-LASC)***

Preparation, examination, discussion, and public performance of musical works appropriate for ensemble without the research and writing assignments necessary to receive LASC credit. Student should be enrolled in this ensemble credit if they only wish to perform in an ensemble and do NOT intend to receive LASC credit.

***[MUS 320H] Commercial Ensemble (non-LASC)***

Preparation, examination, discussion, and public performance of musical works appropriate for ensemble without the research and writing assignments necessary to receive LASC credit. Student should be enrolled in this ensemble credit if they only wish to perform in an ensemble and do NOT intend to receive LASC credit.

***[MUS 320I] Jazz Ensemble (non-LASC)***

Preparation, examination, discussion, and public performance of musical works appropriate for ensemble without the research and writing assignments necessary to receive LASC credit. Student should be enrolled in this ensemble credit if they only wish to perform in an ensemble and do NOT intend to receive LASC credit.

***[MUS 320J] Jazz Combo (non-LASC)***

Preparation, examination, discussion, and public performance of musical works appropriate for ensemble without the research and writing assignments necessary to receive LASC credit. Student should be enrolled in this ensemble credit if they only wish to perform in an ensemble and do NOT intend to receive LASC credit.

***[MUS 320K] Musical Theatre Ensemble (non-LASC)***

Preparation, examination, discussion, and public performance of musical works appropriate for ensemble without the research and writing assignments necessary to receive LASC credit. Student should be enrolled in this ensemble credit if they only wish to perform in an ensemble and do NOT intend to receive LASC credit.

***[MUS 320L] Guitar Ensemble (non-LASC)***

Preparation, examination, discussion, and public performance of musical works appropriate for ensemble without the research and writing assignments necessary to receive LASC credit. Student should be enrolled in this ensemble credit if they only wish to perform in an ensemble and do NOT intend to receive LASC credit.

***[MUS 320M] Solfire (non-LASC)***

Preparation, examination, discussion, and public performance of musical works appropriate for ensemble without the research and writing assignments necessary to receive LASC credit. Student should be enrolled in this ensemble credit if they only wish to perform in an ensemble and do NOT intend to receive LASC credit.

***[MUS 330A] University Choir (LASC)***

Preparation, examination, discussion, and public performance of musical works appropriate for University Choir. MnTC Goal 06.

***[MUS 330B] Concert Choir (LASC)***

Preparation, examination, discussion, and public performance of musical works appropriate for Concert Choir. MnTC Goal 06.

***[MUS 330C] Orchestra (LASC)***

Preparation, examination, discussion, and public performance of musical works appropriate for Orchestra. MnTC Goal 06.

***[MUS 330D] Drumline (LASC)***

Preparation, examination, discussion, and public performance of musical works appropriate for Drumline. MnTC Goal 06.

***[MUS 330E] String Orchestra (LASC)***

Preparation, examination, discussion, and public performance of musical works appropriate for String Orchestra. MnTC Goal 06.

***[MUS 330F] Percussion Ensemble (LASC)***

Preparation, examination, discussion, and public performance of musical works appropriate for Percussion Ensemble. MnTC Goal 06.

***[MUS 330G] Wind Ensemble (LASC)***

Preparation, examination, discussion, and public performance of musical works appropriate for Wind Ensemble. MnTC Goal 06.

***[MUS 330H] Commercial Ensemble (LASC)***

Preparation, examination, discussion, and public performance of musical works appropriate for Commercial Ensemble. MnTC Goal 06.

***[MUS 330I] Jazz Ensemble (LASC)***

Preparation, examination, discussion, and public performance of musical works appropriate for Jazz Ensemble. MnTC Goal 06.

***[MUS 330J] Jazz Combo (LASC)***

Preparation, examination, discussion, and public performance of musical works appropriate for Jazz Combo. MnTC Goal 06.

***[MUS 330K] Musical Theatre Ensemble (LASC)***

Preparation, examination, discussion, and public performance of musical works appropriate for Musical Theatre Ensemble. MnTC Goal 06.

***[MUS 330L] Guitar Ensemble (LASC)***

Preparation, examination, discussion, and public performance of musical works appropriate for Guitar Ensemble. MnTC Goal 06.

***[MUS 330M] Solfire (LASC)***

Preparation, examination, discussion, and public performance of musical works appropriate for Solfire. MnTC Goal 06.

***[MUS 333] Teaching General Music K-12***

Administration of the public school K-12 general music curriculum. Study of teaching methods and materials, learner outcomes and evaluation procedures. Required of both vocal and instrumental education majors. The course must be taken no more than three semesters before the student teaching semester.

***[MUS 334] Secondary School Choral Methods and Literature***

Administration of the high school vocal music program. Study of objectives and evaluation procedures, teaching methods and materials, and repertoire. This course must be taken no more than four semesters before the student teaching semester.

***[MUS 335] Secondary School Instrumental Music Methods and Literature***

Administration of the public school band and orchestra program. Study of objectives and evaluation procedures, teaching methods and materials. In addition to the listed prerequisite of MUS 300, students must complete any three of these courses (MUS 231, 232, 233, 234, or 235) prior to enrollment in MUS 335.

***[MUS 345] Women in Musical Culture***

A history of women in musical culture and critical examination of representations of women in music. Topics examine women's roles in American and European musical cultures, including artistic traditions, popular musics, jazz and folk traditions. Representations of women in musical forms, such as opera, rock music and multimedia, are also considered. MnTC Goals 6 and 7.

***[MUS 346] Sex, Sexuality and Music***

This course considers representations and expressions of sex and sexuality in music throughout history in artistic and popular music traditions in Western society. Various musical forms will be considered in sociohistorical context. Musical works will be examined and interpreted for their expression of ideas about sexuality, representations of sexuality, and the ways in which they enhance or challenge social norms or stereotypes about sexuality. Music as a means of expressing sexuality will also be considered. MnTC Goals 6 and 7.

***[MUS 354] Music Performance: Voice: Level 3***

Individual instruction and master classes. May be repeated for credit.

***[MUS 355A] Music Performance: Piano: Level 3***

Individual instruction and master classes. May be repeated for credit.

***[MUS 355J] Jazz Piano***

Individual instruction and master classes. May be repeated for credit.

***[MUS 356A] Music Performance: Trumpet: Level 3***

Individual instruction and master classes. May be repeated for credit.

***[MUS 356B] Music Performance: Horn: Level 3***

Individual instruction and master classes. May be repeated for credit.

***[MUS 356C] Music Performance: Trombone: Level 3***

Individual instruction and master classes. May be repeated for credit.

***[MUS 356D] Music Performance: Euphonium: Level 3***

Individual instruction and master classes. May be repeated for credit.

***[MUS 356E] Music Performance: Tuba: Level 3***

Individual instruction and master classes. May be repeated for credit.

***[MUS 357A] Music Performance: Flute: Level 3***

Individual instruction and master classes. May be repeated for credit.

***[MUS 357B] Music Performance: Oboe: Level 3***

Individual instruction and master classes. May be repeated for credit.

***[MUS 357C] Music Performance: Clarinet: Level 3***

Individual instruction and master classes. May be repeated for credit.

***[MUS 357D] Music Performance: Bassoon: Level 3***

Individual instruction and master classes. May be repeated for credit.

***[MUS 357E] Music Performance: Saxophone: Level 3***

Individual instruction and master classes. May be repeated for credit.

***[MUS 358A] Music Performance: Violin: Level 3***

Individual instruction and master classes. May be repeated for credit.

***[MUS 358B] Music Performance: Viola: Level 3***

Individual instruction and master classes. May be repeated for credit.

***[MUS 358C] Music Performance: Cello: Level 3***

Individual instruction and master classes. May be repeated for credit.

***[MUS 358D] Music Performance: Bass: Level 3***

Individual instruction and master classes. May be repeated for credit.

***[MUS 358F] Music Performance: Guitar: Level 3***

Individual instruction and master classes. May be repeated for credit.

***[MUS 359] Music Performance: Percussion: Level 3***

Individual instruction and master classes. May be repeated for credit.

***[MUS 370] Composition***

Exploration of compositional techniques in all idioms and styles. Projects are individualized to meet the needs and desires of each participant.

***[MUS 372] Commercial/Jazz Arranging I***

Small group writing in two, three and four parts. Arranging for the small jazz ensemble (combo). Writing for the rhythm section. Approaches to common introductions and endings.

***[MUS 374] Instrumental/Choral Arranging***

Approaches to writing for instruments of the band and orchestra as well as writing for choral ensembles. Ranges, transpositions and scoring for ensembles of various sizes. Substituting instruments to fit individual needs. Writing for voices with a focus on ranges, sensible rhythmic handling of lyrics.

***[MUS 378] Advanced Conducting***

Advanced band, orchestra and choral conducting techniques, rehearsal methods, and score reading.

***[MUS 387] Commercial/Jazz Improvisation and Theory II***

This is the second course in a three-semester sequence covering principles of melodic improvisation in commercial and jazz styles. Intermediate commercial/jazz theory concepts relating to this material will be covered concurrently.

***[MUS 390] Topics in Music***

Special upper division studies in music. Different topics will be chosen for study. May be repeated if topic changes.

***[MUS 397] Independent Study***

Directed study of particular topics in music agreed upon by instructor and student.

***[MUS 432] Voice Pedagogy***

Will include physiology, anatomy, teaching techniques, demonstration models and a practicum.

***[MUS 433] Jazz Pedagogy***

This course will focus on techniques for directing instrumental and vocal jazz ensembles and techniques for teaching the various jazz disciplines. The course will review major jazz texts, periodicals, historical recordings, and resources.

***[MUS 450] Student Recital***

Special supplemental applied study in preparation for public recital appearance. May be repeated once for credit. Students must pass the piano proficiency examination prior to enrolling in this course.

***[MUS 454] Music Performance: Voice: Level 4***

Individual instruction and master classes. May be repeated for credit.

***[MUS 455A] Music Performance: Piano: Level 4***

Individual instruction and master classes. May be repeated for credit.

***[MUS 455J] Jazz Piano***

Individual instruction and master classes. May be repeated for credit.

***[MUS 456A] Music Performance: Trumpet: Level 4***

Individual instruction and master classes. May be repeated for credit.

***[MUS 456B] Music Performance: Horn: Level 4***

Individual instruction and master classes. May be repeated for credit.

***[MUS 456C] Music Performance: Trombone: Level 4***

Individual instruction and master classes. May be repeated for credit.

***[MUS 456D] Music Performance: Euphonium: Level 4***

Individual instruction and master classes. May be repeated for credit.

***[MUS 456E] Music Performance: Tuba: Level 4***

Individual instruction and master classes. May be repeated for credit.

***[MUS 457A] Music Performance: Flute: Level 4***

Individual instruction and master classes. May be repeated for credit.

***[MUS 457B] Music Performance: Oboe: Level 4***

Individual instruction and master classes. May be repeated for credit.

***[MUS 457C] Music Performance: Clarinet: Level 4***

Individual instruction and master classes. May be repeated for credit.

***[MUS 457D] Music Performance: Bassoon: Level 4***

Individual instruction and master classes. May be repeated for credit.

***[MUS 457E] Music Performance: Saxophone: Level 4***

Individual instruction and master classes. May be repeated for credit.

***[MUS 458A] Music Performance: Violin: Level 4***

Individual instruction and master classes. May be repeated for credit.

***[MUS 458B] Music Performance: Viola: Level 4***

Individual instruction and master classes. May be repeated for credit.

***[MUS 458C] Music Performance: Cello: Level 4***

Individual instruction and master classes. May be repeated for credit.

***[MUS 458D] Music Performance: Bass: Level 4***

Individual instruction and master classes. May be repeated for credit.

***[MUS 458F] Music Performance: Guitar: Level 4***

Individual instruction and master classes. May be repeated for credit.

***[MUS 459] Music Performance: Percussion: Level 4***

Individual instruction and master classes. May be repeated for credit.

***[MUS 469] Internship***

Internship in music-related field. Students must pass the piano proficiency examination prior to enrolling in this course. A maximum of 12 internship credits may be applied to the degree.

***[MUS 472] Commercial/Jazz Arranging II***

A continuation of MUS 372. Writing for five-part ensemble with rhythm section and for larger ensembles (big band, vocal jazz ensemble and studio orchestra).

***[MUS 487] Commercial/Jazz Improvisation and Theory III***

This is the third and final course in a sequence devoted to the study of improvisation in jazz and commercial music styles. Topics include: non-standard chord progressions and advanced harmonic applications, advanced transcription and analysis; advanced melodic improvisation guide-tone exploration, bebop language and pentatonic scales, and different styles of jazz including modal and non-standard/contemporary.

***[MUS 490] Topics in Music***

This is an upper division topical course in Music and may be repeated when the topic changes.

***[MUS 492] Senior Capstone/Thesis***

Senior capstone focused on the development and completion of the senior thesis and, as appropriate, public presentation of the results of

the thesis. May be repeated for credit for up to 3 credits.

***[MUS 497] Independent Study***

Directed study of particular topics in music agreed upon by instructor and student.

## Nursing

***[NURS 270] Health Promotion and the Role of the Professional Nurse***

This course introduces the student to the role of the professional nurse. The emphasis on health promotion across the lifespan includes learning about self-health, as well as holistic client health practices. Students learn to access and apply research evidence to guide safe preventative care. The student will incorporate communication and growth and development theory in a caring and culturally sensitive manner. The student will work as an ethical member of multi-disciplinary teams giving and receiving feedback about performance and use reflective thinking about their practice. Within the context of the nursing process, populations studied will include children, adults, older adults and the family experiencing a normal pregnancy.

***[NURS 272] Transition to the Role of the Professional Nurse***

This course is designed to expand the knowledge and skills of the LPN as they transition to the professional role within nursing. Emphasis is placed on health promotion through the lifespan and incorporates theories related to evidence-based practice, quality and safety, communication, collaboration, clinical decision-making/reasoning, informatics, assessment, caring, and health- illness continuum.

***[NURS 275] Nutrition and the Role of the Professional Nurse***

This course introduces the student to the role of the nurse in promoting and supporting nutritional health. Emphasis is on the role nutrition plays in health promotion/prevention of illness, recovery from acute illness and/or management of chronic illness. Students learn to access evidence to support healthy nutritional choices that reduce risk factors for disease and/or illness across the lifespan. Students explore how culture, ethnicity, socio-economic status, nutritional trends and controversies, and integrative therapies influence the nutritional health of the client.

***[NURS 280] Chronic & Palliative Care***

This course focuses on the nursing care of clients experiencing chronic illness and/or end of life. Emphasis is placed on understanding the “lived experience” of clients and families. Ethical issues related to advocacy, self- determination, and autonomy are explored. Evidence-based practice is used to support appropriate focused assessments and management of care of clients experiencing concurrent illnesses/co-morbidities.

***[NURS 282] Pharmacology and the Role of the Professional Nurse***

This course introduces theoretical concepts that enable students to provide safe and effective care related to pharmaceuticals and natural products to diverse clients across the lifespan. A framework is presented for approaching the study of pharmacotherapeutics including pharmaceutical research and regulation, quality and safety, major drug classifications, and clinical management.

***[NURS 285] Applied Pathophysiology for Nursing I***

This course introduces a holistic perspective of pathophysiological processes and the disruption in normal body function. Emphasis will be on objective and subjective manifestations of common chronic health problems resulting from environmental, genetic, and stress-related maladaptations to provide a foundation for nursing care. This course complements selected topics addressed in Chronicity and End of Life to provide a comprehensive understanding of disease processes.

***[NURS 301] Transitions***

As the first course for RNs who are pursuing a baccalaureate degree, this course provides an overview of the evolution of nursing as a profession. Students are oriented to the role of being scholar-clinicians. The course supports an evolving professional identity and examines major issues and trends in contemporary nursing. Students will explore critical abilities in professional practice such effective communication, working in groups, teaching-learning, and more. The prevailing focus of analysis is quality and safety for the care of individuals, groups, and families. This course is a prerequisite for all other courses in the nursing major for RN-BSN students.

***[NURS 303] Holistic Family Nursing***

This course emphasizes nursing care of the diverse family unit across life stages and care settings. Family focused care that is theory driven and evidence informed guides students in developing holistic, health promoting, culturally sensitive approaches to care. In addition, promotion of critical thinking and effective, therapeutic communication and collaborative practices are emphasized in the care of families.

***[NURS 318] Nursing Ethics***

This course is designed to assist students in the exploration and recognition of ethical issues within the profession of nursing. Students will gain knowledge and gain critical thinking skills through that application of ethical theories and paralleling of situations to various benchmarks within the nursing profession (i.e. Association of American College's of Nursing Baccalaureate Essentials, Bachelor of Science in Nursing Program Outcomes, American Nurses Association Code of Ethics, Minnesota Board of Nursing Scope of Practice).

***[NURS 342] Interdisciplinary Care of Diverse Populations***

This course supports all future members of the healthcare team in learning how to have an impact on the profound disparities in health status and healthcare of diverse populations through a multidisciplinary approach. Students will examine the definitions of culture and diversity while exploring the ways that these two concepts intersect with health issues. The focus is that healthcare professionals are committed to advocating for safe quality care to all, congruent with the tenets of social justice, human rights, and bound to ethical care for all. MnTC Goal 7

***[NURS 348L] Public Health Nursing***

This on-line course combines the theory base with clinical experiences in nursing care to complex systems and aggregates in the community. Emphasis is placed on the promotion, maintenance and restoration of health and wellness and the prevention of disease.

***[NURS 352] End of Life Patient Care***

This course addresses the challenges and complexities of palliative and hospice care based on the End of Life Nursing Education Consortium (ELNEC) curriculum. Course modules focus on end-of-life issues such as evidence-based assessment and management of pain and other symptoms, communication, ethics, cultural/spiritual aspects, loss/grief/bereavement, and the final hours. A multidisciplinary approach to palliative care addresses patient- and family-centered care with attention on the physical, psychosocial, spiritual, and emotional needs of terminally ill patients and their family members. Students who successfully complete this course are “ELNEC-trained”.

***[NURS 354] Integrative Nursing***

This course focuses on core concepts and principles of integrative nursing care to optimize health and well-being of self, persons, organizations, and communities. Integrative nursing interventions, integrative therapies, and applications are examined to manage a variety of common symptoms, promote health, and create optimal healing environments across care settings and populations. Students evaluate evidence, theoretical principles, and strategies related to integrative therapies to implement appropriate approaches to clinical practice and self-care. In the course, students experience practical applications to enhance well-being. Finally, global perspectives related to integrative nursing are explored.

***[NURS 361] Acute and Complex Care***

This course focuses on the nursing care of clients experiencing acute disruptions of health and/or end of life issues. Emphasis is placed on understanding and application of theory and skills required to provide nursing care to clients with complex and/or unstable conditions. Evidence-based practice is used to support appropriate focused assessments, and effective, efficient nursing interventions. Knowledge of life span, developmental factors, cultural variables and legal aspects of care guide the ethical decision making in delivery of care.

***[NURS 362] Applied Pathophysiology for Nursing II***

This course will facilitate ongoing critical thinking and analysis of pathophysiological concepts. Emphasis will be on interpretation and prioritization of data resulting from environmental, genetic, and stress-related maladaptations. This course complements the selected topics addressed in Acute & Complex Care to provide a comprehensive understanding of disease processes.

***[NURS 364] Nursing Leadership I***

This course focuses on prioritization, delegation, and supervision of nursing care of clients across the lifespan. Healthcare policy, finance, and regulatory environment issues are analyzed. Emphasis is on planning, collaborating and coordinating care for individuals and groups across the care continuum.

***[NURS 370] Nursing Research and Evidence-Based Practice***

This course is grounded in the translation of current evidence into best practice. The research process links nursing theory with clinical nursing practice for application within the larger healthcare system. Emphasis is placed on preparing students to retrieve, read and comprehend published research reports. A systematic approach to appraisal of research evidence is emphasized as a means of informing nurses' clinical decision making and is incorporated into a research critique. Students develop an evidence based practice project as well as explore evidence-based practice models to facilitate implementation and dissemination.

***[NURS 390] Topics in Nursing***

This is a topical course and may be repeated when the topic varies.

***[NURS 406] Nursing Care of the Family***

This course focuses on holistic nursing care of families across the lifespan. Emphasis is on application of multiple theories relevant to families experiencing transitions. Relationships between genetics and genomics to family health are discussed. Students provide care to families utilizing evidence-based nursing practices.

***[NURS 420] Gerontological Nursing to Promote Successful Aging***

This course explores the experience and challenges of aging from the perspective of the patient, the support system, the community, and the health care system. Factors and processes that are both contributors and barriers to successful aging and quality of life for older adults are identified. Various assessment tools and strategies for delivering evidence-based care will be considered that enhance quality of life for the older adult in both health and disease states.

***[NURS 444] Evidence-Based Nursing Practice***

This course focuses on evidence-based practice and the research process in the development of nursing knowledge and in nursing practice. Ethical considerations and the protection of human subjects in research are explored. Emphasis is placed on the critical appraisal of research and application of findings to holistic nursing practice.

***[NURS 446] Nursing Informatics***

This course expands on foundational knowledge of nursing informatics with emphasis on how technology can be used as a tool to improve client care in a variety of settings. The role of the baccalaureate prepared nurse in evaluating information systems in a variety of practice settings

is examined. The issues of ethics, ergonomics, and nursing workflow as they relate to nursing informatics are explored.

***[NURS 459] Population Based Care***

This course prepares students in the practice of community and public health nursing. Students synthesize knowledge from nursing, public health and the social sciences to provide holistic care with community as client. Emphasis is on prevalent population-based health issues.

***[NURS 462] 3 Ps for the BSN: Pathophysiology, Pharmacology & Physical Assessment***

This course integrates pathophysiology, pharmacology, and physical assessment using a concept-based framework. Select disease processes will be considered focusing on a basic understanding of cellular function, pathophysiology, pharmacologic mechanism of action, and corresponding physical assessment findings. Concepts addressed in this course include: health assessment, pharmacology principles; pharmacogenomics; altered cellular response & cellular proliferation; altered ventilation & perfusion; altered nutrition, fluids & elimination; altered metabolic & hormonal regulation; and altered neuro-sensory regulation. A lifespan approach will strengthen the nurses understanding of health-related information, focus on evidence-based practice guidelines, facilitate inter-professional collaboration, and improve nursing care across a wide variety of settings

***[NURS 464] Nursing Leadership II***

This course reinforces and expands leadership concepts introduced in previous courses and focuses on how nursing leadership influences client care and practice in the larger health care delivery system. Emphasis is on use of outcome data to evaluate care delivery systems and to propose performance improvement initiatives, considering enduring practice issues, policy debates and historical solutions.

***[NURS 469] Nursing Internship & Practical Training***

In this nursing practical training course, the student will partake in clinical based training opportunities in an approved healthcare setting. The outcome of this course is to provide opportunities for supplemental clinical based training to enhance the integration of theory and research-based knowledge in professional nursing practice. There are two tracks for this course 1) Nursing Internship (must have successfully completed MANE semester 5 prior to start of internship experience) and 2) *Curriculum Practical Training (CPT). Each track has its own set of outcomes. Students arrange their own related employment and must be admitted and actively enrolled in the MANE BSN program at MSUM. The CPT Co-Operative (Co-op) Employment Experience for undergraduate F-1 international MANE BSN students provides practical work experience related to the field of nursing per CPT guidelines. Special rules and eligibility criteria established by the MANE BSN Program must be met. Students will work with the Center for Global Engagement.

***[NURS 472] Leadership and Professional Development***

This course provides students with the opportunity to explore leadership theories and behaviors that will serve as a foundation for career-long professional development. The course focuses on: (a) leadership, (b) professionalism, (c) communication and relationship building, (d) knowledge of the healthcare environment and (e) developing business skills. It integrates concepts of management, decision making, and more to prepare students for current professional nursing practice as leaders and change agents. Emphasis is placed on the critical role of the nurse leader in promoting a collaborative, interdisciplinary approach to the delivery of high quality, safe and accessible healthcare to diverse populations across healthcare settings.

***[NURS 473] Professional Pathways***

In this senior capstone, writing intensive course, the student addresses a quality improvement issue using evidence based practice recommendations in a student led project. The student investigates a

problem or issue in practice, reviews best evidence and translates that best evidence into a sustained change to enhance quality and safety in care. Emphasis is placed on the nurse as a healthcare leader and the development of leadership skills including project management, decision-making, problem solving, critical thinking, and evaluation. Baccalaureate nursing graduate outcomes are synthesized as students complete their undergraduate nursing coursework.

***[NURS 485] Global Health Perspectives***

This course examines global health issues that influence the delivery of holistic care at the local, national, and global level. Emphasis is on recognition of the global, cultural, and societal factors that influence care at the local level. Theoretical frameworks are presented to guide planning of global health care delivery. The role of nursing in advocating for culturally responsive care of diverse and vulnerable populations is examined. Students are challenged to define themselves as global citizens.

***[NURS 490] Topics in Nursing***

Study of selected practices, issues and/or problems in health care delivery as they impact the consumer and the nursing profession. Topics change each semester. This course may be repeated when the topic changes.

***[NURS 492] Integrative Seminar & Practicum***

This clinical practicum course provides a bridge for the role transition from student to baccalaureate nurse generalist. Emphasis is placed on synthesizing theories, principles, concepts, and skills from nursing and other disciplines as a basis for implementing and evaluating holistic nursing care within systems and to diverse populations across the lifespan. This course may include seminar, self-directed study, service learning, simulation and clinical learning experiences.

***[NURS 497] Independent Study***

In this Independent Study course, the student will undertake studies in a self-directed mode related to professional nursing practice.

## Operations Management

***[OM 201] Introduction to Professional Selling***

This course will provide students with the opportunity to better understand what a professional selling career actually looks like. This course will explore the realities and myths of selling related careers and help make apparent the possibilities that might exist for professionals in a variety of industries, types of organizations, and different customer contexts. Students will be able to not only hear from professors who have experience in selling but also from professionals currently in the field working with customers and prospects.

***[OM 305] Global Supply Chain Applications***

This course will analyze the supply chain from the point of view of a manager. The goal is to understand how logistical decisions impact the performance of the firm as well as the entire supply chain. The key will be to understand the link between supply chain structures and logistical capabilities in a firm or supply chain. Topics will be covered at the strategic level, planning level as well as the operational level.

***[OM 380] Methods Improvement***

Study and analysis of productive and non-productive work elements for the purpose of productivity improvements and establishing time standards.

***[OM 390] Topics in Operations Management***

Topics in Operation Management - may be repeated when the topic varies.

***[OM 393] Occupational Safety and Health***

Designed for students to develop an understanding of basic occupational safety and health terminology, principles, and practices. Course content covers both industrial and construction

settings and reflects current occupational standards. Students will be exposed to the development of a safety program and will do a safety site visit off-campus.

***[OM 395] Computer Applications for Technologists***

The stand alone and integrated application of computer software tools such as spreadsheets, word processors, database management systems, graphics and other productivity software, to problem solving contexts specific to the disciplines of technology.

***[OM 401] Professional Selling Practicum***

This course will provide students with the opportunity to put into practice selling related principles explored as part of their previous classes, job shadowing opportunities, and/or practical opportunities where they could demonstrate their selling acumen.

***[OM 433] Dale Carnegie Skills for Success***

A key set of skills needed for any project manager are the abilities to not just build rapport with teams of people who you have little to no direct authority over, but to also accomplish your objectives by gaining their willing cooperation. This course gives you the human relations skills to thrive in any setting. Additionally, you'll discover how to form closer, more rewarding relationships built on trust and respect. This course focuses on increasing your confidence and competence in interacting with others. This will help you gain the influence you need to reach new heights in your personal and professional life. Same as PMGT 433.

***[OM 469] Internship***

Through industry cooperation, formal instruction is supplemented with a practicum conducted on site with a host business, helping students learn the necessities for successful careers in distribution and manufacturing. Maximum of 12 credits may be applied to the graduation requirement.

***[OM 470] Purchasing and Sourcing Management***

This course covers the tools, techniques and approaches used for managing the procurement and sourcing processes. Topics such as cost analysis, price analysis, negotiations, contract management will be discussed using lectures, industry experts and case studies.

***[OM 472] Logistics Management and Network Design***

Supply chain management and strategic logistics management address many of the same areas and topics. The overarching goal here is to address the design, control, operation and management of supply chain systems. Topics that are addressed include logistics trade-offs, inventory management, logistics network planning, distribution systems, customer value, the value of information, and supply chain procurement outsourcing.

***[OM 482] Quality Management***

Focusing on expanded managerial philosophies and techniques of quality control including the comprehensive treatment of quality management and control issues. This course provides practical applications of management theory by balancing managerial and technical material.

***[OM 483] Cost Analysis***

The objectives of the course are to analyze cost behavior and to develop and interpret financial information at the process, project, and organization levels for purposes of management decision making.

***[OM 485] Production Inventory Management***

Study and analysis of systems and methods for planning and control of manufacturing resources. The framework of this course is based on the guidelines provided by the American Production and Inventory Control Society. Main topics include master planning, inventory management, material and capacity requirements planning, production activity control, and Just-In-Time.

***[OM 490] Topics in Operation Management***

Individual study not offered in depth in the regular curriculum. Maximum of 4 credits applied to graduation.

## Philosophy

***[PHIL 101] Introduction to Western Philosophy***

An introduction to Western philosophical thinking and methods through an examination of selected figures and movements from the history of the discipline. MnTC Goal 6.

***[PHIL 102] Philosophies of Human Nature***

This course examines multiple philosophical ideas about human existence. In addition to exploring culturally distinct perspectives, we will explore normative consequences and applications regarding basic obligations and attitudes towards others, the environment, and values. Topics typically include Confucianism, Hinduism, Buddhism, Christianity, Existentialism, Aristotleanism, Kantianism, and secular humanism. MnTC Goal 6 and 7.

***[PHIL 110] Practical Reasoning***

An introduction to critical thinking, with emphasis on understanding the logic of everyday arguments, interpreting the arguments of others, detecting fallacies, and constructing good arguments. MnTC Goal 2.

***[PHIL 120] World Religions***

Study of beliefs and practices of major religions of the world. MnTC Goal 6 and 7.

***[PHIL 215] Contemporary Moral Issues***

Application of ethical theories to contemporary moral issues, such as world hunger, punishment, sexual equality, sexual behavior, abortion, the environment, corporate responsibility, and war. MnTC Goal 6 and 9.

***[PHIL 235] Philosophy of Sex and Love***

Exploration of historical and contemporary sources. Topics may include the nature of sexual acts, perversion, homosexuality, sexual ethics, fantasy, pornography, marriage, the different types of love, and feminist views on sex and love. MnTC Goal 6 and 7.

***[PHIL 301] Philosophy of Religion***

An examination of religions from a philosophical standpoint. The course will discuss such issues as the existence and nature of God, religious experience, and life after death.

***[PHIL 302] Buddhist Philosophy***

This course explores the most fundamental issues in Buddhist philosophy that have shaped the way of life and thoughts of Buddhists for 25 centuries. Topics include Buddhist conceptions of reality, empty persons, ethical relationships, the doctrine of emptiness, Buddhist epistemology, and Zen. MnTC Goal 6 and 8.

***[PHIL 311] Morals and Medicine***

A consideration of some moral problems that arise in medicine such as truth-telling, experimentation, paternalism, abortion, euthanasia, allocation of sparse resources and health care systems. MnTC Goal 6 and 9.

***[PHIL 312] Business Ethics***

This course explores the ethical challenges that arise in the business world. The course will begin with a discussion of different normative theories and then applies those theories to areas of concern within the business world. Case studies will be used to illustrate theoretical points with particular situations. This course will develop critical thinking competencies. MnTC Goal 6 and 9.

***[PHIL 318] Professional Ethics***

The course explores the special ethical challenges that arise in professional life. The course is organized around issues common to many professions, such as competing rights, informed consent, professional obligation, and confidentiality. The course provides an overview of different normative theories and applies them to areas of concern that frequently arise in professional decision making. Case studies

illustrate these issues. This course develops critical thinking and writing competencies. MnTC Goal 9.

***[PHIL 320] Philosophy of the Arts***

A consideration of philosophical questions relating to the fine arts. Representative topics include the nature of art, aesthetic experience, criticism in the arts, representation, symbolism, and evaluation. Same as ART 320. MnTC Goal 6.

***[PHIL 335] Death and Dying***

Everybody dies. But is that a bad thing? Going back to Epicurus, philosophers have argued about this question. The implications should be obvious: if death isn't a bad thing, then what do we say about murder, war, suicide, and end of life issues? On the other hand, if death is bad, what makes it so? In this class, we will consider questions about what life is and what death is, what impact on life's meaning death has, whether death is bad or not, and how our answers to these questions will impact our thinking about procreation, suicide, and killing others. MnTC Goal 6 and 9.

***[PHIL 340] Symbolic Logic***

A survey of deductive logic, emphasizing the use of symbolism to interpret and evaluate arguments. Includes propositional and predicate logic. MnTC Goal 4.

***[PHIL 358] Peace and War***

War affects people around the globe, both when their nation is at war and when allies of their nation are at war. By studying the writings of people from different cultures and nations, we will examine both the causes of war and alternatives. During this class we will have occasion to question whether war is ever moral and whether there are any viable alternatives to war that might allow for more peaceful resolutions of conflict. We will finish the semester with a discussion of terrorism and how it should affect our beliefs about some of these issues. MnTC Goal 6 and 8.

***[PHIL 390] Topics in Philosophy***

Topics will be announced in semester class schedules. Students may repeat course when content varies.

## Photography

***[PHO 201] Introduction to Film Based Photography***

This course introduces students to film based photography. Students learn camera functions, film exposure, gelatin silver based printing, fine tuning of images and image presentation. Emphasis is placed on personal vision and students understanding the relationships between the aesthetics, technical and conceptual concerns in photography. Students are also introduced to the history of photography and are required to draw relationships between their work and historic photographic works. This allows them to better understand their place in the contemporary photographic art world.

***[PHO 202] Basic Digital Imaging***

This course addresses aesthetic, conceptual and technical concerns in digital photography. Basic level Adobe Photoshop and other relevant software instruction will occur. It is important to note that this course is first and foremost about image making. The computer will be used as any other tool is used in the creation of art. An adjustable digital camera is required (small, medium or large format).

***[PHO 390] Topics in Photography***

Topics in Photography course which may be repeated when the topic changes.

***[PHO 397] Independent Study in Photography***

Independent study in photography.

## Physical Education

***[PE 100] Group Exercise***

This course provides instruction in the principles of aerobic exercise and requires participation in daily

aerobic dance routines designed to develop aerobic fitness and rhythmic skills.

***[PE 102] Weight Training I***

This course is designed for students who have limited weight training experience. Weight training principles, exercises, terminology, safety and etiquette are presented and students participate in a weight training program.

***[PE 103] Weight Training II***

This course builds on the basic weight training principles introduced in PE 102. Advanced weight training programs and systems are covered and implemented.

***[PE 104] Exercise and Body Development***

This course is designed to teach the knowledge, activities, and skills necessary to develop a comprehensive physical fitness program focusing on flexibility, strength and aerobic development.

***[PE 109] Walking Fitness***

Walking Fitness is an activity course designed to help participants learn about the benefits of walking, explain how walking can be a part of a safe and realistic fitness plan, and discuss how to maintain or improve their fitness level by walking.

***[PE 112] Bowling***

This course is designed for the beginning bowler. Students receive instruction in the basic skills of bowling, terminology, rules, strategy and scorekeeping.

***[PE 114] Golf***

This course is designed to improve the beginning golfer's skills and knowledge of rules, terminology, equipment, etiquette and strategy in golf.

***[PE 116] Tennis I***

This course is designed for the beginning tennis player. It focuses on developing ground strokes, the serve, and understanding of tennis terminology, rules, etiquette and basic singles and doubles strategies.

***[PE 124] Badminton***

This course is designed to teach students basic skills in badminton. Instruction focuses on strategies and rules used in both singles and doubles competitions.

***[PE 130] Volleyball I***

This course is designed for students who have limited volleyball experience. Instruction and practice focuses on the pass, overhead pass, serve, spike, rules, terminology and basic offensive and defensive match play.

***[PE 132] Basketball***

This course is designed for the beginning basketball player. Students learn the fundamentals of basketball including passing, shooting, dribbling, rebounding, defense and strategy.

***[PE 134] Soccer***

This course is designed to provide instruction, practice, and performance opportunities in the basic soccer skills and techniques. Rules, responsibilities of players, team play, and strategies are also covered.

***[PE 137] Yoga I***

This course is designed to teach students the fundamentals of hatha yoga. Each class will cover different physical and philosophical aspects of yoga. This class requires daily active participation along with reading, course work, and discussion. No prior yoga experience necessary.

***[PE 144] Ballroom Dance***

Students will learn the basics of leading and following techniques as well as be introduced to swing, waltz, two step and Latin dance.

***[PE 160] Swimming I***

This course is designed for the student to learn basic water safety skills and knowledge in order to make him/her safe in the aquatic environment.

***[PE 190] Topics in Physical Education***

This is a topical course in fundamental activities. The course may be repeated if content varies.

***[PE 191] Activities Course: Dance***

Designed for physical education majors, this course develops skills and knowledge in folk, square, and ballroom dance.

***[PE 192] Activities Course: Gymnastics***

Designed for physical education majors, this course develops skills and knowledge of rules, terminology, and a practical experience to assist with teaching gymnastics.

***[PE 193] Activities Course: Elementary School***

Designed for physical education majors, this course introduces the student to the elementary school curriculum.

***[PE 194] Activities Course: Non-Traditional***

Designed for physical education majors, this course develops skills and knowledge of rules, strategies, and terminology in a variety of non-traditional activities.

***[PE 200] Foundations of Physical Education***

This course investigates the nature and scope of physical education including philosophy, objectives and the role of movement and fitness. It involves the application of historical and scientific foundations as they apply to physical education and sport and considers career and professional opportunities in physical education and sport.

***[PE 290] Topics in Physical Education***

This is a topical course in Physical Education. The course may be repeated if content varies.

***[PE 360] Elementary Methods in Physical Education***

This course is designed to prepare students to teach physical education to children in grades K-6. Course content reflects the idea that teaching is goal directed and a skill that requires practice. Students are required to observe, participate, teach and evaluate elementary school physical education. The prerequisites can be waived with the consent of the instructor.

***[PE 361] Secondary Methods in Physical Education***

This course is designed to prepare students to effectively teach physical education activities to student in grades 7-12.

***[PE 362] Middle School Methods in Physical Education***

Study, demonstration and exploration of methods and techniques of presenting sports, games, and movement skills to middle school students in grades 6-8. Curriculum design and development, as well as techniques for organizing groups will be included. The prerequisites can be waived with the consent of the instructor.

***[PE 367] Coaching Soccer***

This course is designed to provide an overview of soccer as it relates to current soccer coaching methods and theories. Team management, coaching methods of technique and tactics along with match analysis will be examined.

***[PE 371] Coaching Football***

This course is intended to help prepare students for coaching high school football. Emphasis is placed on students developing a philosophy concerning all aspects of coaching football.

***[PE 372] Coaching Basketball***

This course is designed for students to acquire the knowledge and skills necessary to successfully coach basketball at the junior and senior high school levels.

***[PE 373] Coaching Baseball and Softball***

This course is designed to teach the skills and knowledge necessary to coach baseball and softball at the youth and secondary school levels.

***[PE 374] Coaching Track and Field***

This course is designed to prepare students to effectively coach track and field to junior and senior high school students. It involves the application of strategies, placement of personnel and meet management. Students will learn about equipment, safety precautions and be able to perform basic track and field skills.

***[PE 378] Coaching Swimming and Diving***

This course is designed to teach the skills and knowledge necessary to coach swimming and diving. The course will also cover expectations of officiating score keeping for swimming meets.

***[PE 379] Coaching Volleyball***

This course prepares students to effectively coach volleyball at the elementary or secondary school level. Students learn about season and practice management, principles of physical training, development and analysis of skills, offensive and defensive team play, game management and evaluative procedures.

***[PE 390] Topics in Physical Education***

This is a topical course in Physical Education. The course may be repeated if content varies.

***[PE 452] Adaptive Physical Education***

This course provides the student with an introductory study to adapted physical education and includes strategies for meeting the needs of student with disabilities in the least restrictive environment.

***[PE 453] Assessment and Programming in DAPE***

Prepares Developmental Adaptive specialists to administer a variety of norm and criteria referenced tests, and design age-appropriate learning activities.

***[PE 454] Curriculum in Developmental Adapted Physical Education***

Prepares Developmental Adapted specialists to provide direct service to handicapped students, serve as consultants to other physical education teachers, assess motor and physical fitness levels, write individual programs, read and understand research in adapted physical education.

***[PE 456L] Lab Curriculum and Assessment for Severely Handicapped***

This course involves application of the functional program philosophy associated with teaching students with severe disabilities. This 30 hour lab course requires students to develop a 'clip board' instructional system for planning, teaching, and evaluating physical education activities.

***[PE 460] Principles of Coaching***

This course is designed to introduce students to the basic principles, philosophies and theories associated with effective coaching. A major emphasis will be placed on coaching philosophy, sport pedagogy, psychological aspects of coaching, and the legal issues involved with coaching.

***[PE 461] Coaching Practicum***

This course is designed to provide students the opportunity to apply the principles and practices of coaching in a junior high or high school environment. The student will be allowed to actively participate in practical coaching experiences under the guidance and supervision of a qualified coach. Should be taken after or concurrently with PE 370's course or PE 460.

***[PE 469] Internship***

Designed to give students an opportunity to gain supervised clinical experiences working with a variety of state and local agencies. A maximum of 12 internship credits may be applied to the degree.

***[PE 474] Tests and Measurements in Physical Education***

This course deals with the theory of measurement in physical education, the selection and administration of appropriate tests, and the interpretation of results by fundamental statistical procedures. Students should have junior status prior to enrolling in this course.

***[PE 490] Topics in Physical Education***

This is a topical course in Physical Education. The course may be repeated if the topic changes.

***[PE 497] PE Independent Study***

Physical education independent study allowing an individual to explore a specific topic under faculty supervision.

***[PE 499] Continuing Studies Topical Workshop***

This is a topical workshop and may be repeated when the topic varies.

## Physical Science

***[PSCI 170] Physical Science I***

Activity-based conceptual learning, appropriate to the elementary classroom and to the life-long learning of physical science will be modeled in the course. Lab included. MnTC Goal 3.

***[PSCI 378] Energy and the Environment***

This course will examine the relationships between civilization, society and energy use. This will be accomplished by examining current and possible future energy sources as developed through the sciences of physics and chemistry and their applied technologies. It will then examine the applications of current sources and their effects on society and world ecosystems. Finally the course will examine how societies change and adapt, and look at possible steps to a sustainable energy and environmental future. MnTC Goal 3 and 10.

***[PSCI 385] Hiroshima Peace Studies Tour***

Students will explore the history of nuclear weapons, and discuss the roles of Hiroshima and Nagasaki today. Students will travel to Hiroshima, and will keep a journal, using this and other research done prior to the trip to develop a course project. Structured activities in Hiroshima will include visiting the Peace Park and Peace Museum, talks by scholars from Hiroshima University on peace studies topics, visits to historical and cultural sites, such as Hiroshima Castle, and the island of Miyajima. Same as HON 385. MnTC Goal 8.

## Physics

***[PHYS 105] Physics of Music***

Physical principles governing the production, transmission and reception of musical sound. A background in music is strongly recommended. Lab included. MnTC Goal 3.

***[PHYS 160] Physics I with Algebra & Lab***

Concepts and principles of elementary physics presented in a guided activity-based format which integrates lecture and laboratory using cooperative group learning techniques. Includes kinematics and mechanics. MnTC Goal 3.

***[PHYS 161] Physics II with Algebra & Lab***

Concepts and principles of elementary physics presented in a guided activity-based format which integrates lecture and laboratory using cooperative group learning techniques. Includes thermal physics, electromagnetism, and optics.

***[PHYS 190] Topics in Physics***

A study of a specific area of physics.

***[PHYS 200] Physics I with Calculus & Lab***

Calculus-based study of general physics presented in a guided activity-based format which integrates laboratory and lecture using cooperative learning techniques. Includes kinematics, conservation laws (energy, momentum and angular momentum) and harmonic oscillations. MnTC Goal 3.

***[PHYS 201] Physics II with Calculus & Lab***

Calculus-based study of general physics presented in a guided activity-based format which integrates laboratory and lecture using cooperative learning techniques. Includes electric charges, electric

fields, capacitance electric circuits, magnetic fields, electromagnetic induction and an introduction to optics. MnTC Goal 3.

***[PHYS 202] Introduction to 20th Century Physics***

Introduction to physics topics in 20th century physics: thermodynamics, physical optics, and overview of atomic, molecular, and particle physics. A weekly hour long lab period is included in regular class hours.

***[PHYS 305] Experimental Physics I***

Study of laboratory techniques and measuring instruments.

***[PHYS 306] Experimental Physics II***

Study of laboratory techniques and measuring instruments.

***[PHYS 312] Analog Electronics***

This course provides a general overview of analog electronics(electrical engineering), and includes a number of electronics laboratory activities completed during regular class hours. The course will cover circuit analysis (DC and AC), explore semiconductor devices (diodes and transistors), analog electronics (operational amplifiers) and timer circuits. Student must have completed either PHYS 161 or PHYS 201 and either MATH 229 or MATH 261.

***[PHYS 315] Physics Seminar***

Students will be required to read and present journal articles periodically. Students will discuss the physics involved and participate in informal discussions with the faculty and fellow students. Potential topics might include recent discoveries in physics or astronomy, novel experimental techniques or apparatus, novel physical theories, and demonstrations for physics instruction. Course is repeatable, but only a total of 2 credits in any combination of seminar (PHYS 315), research (PHYS 300), and internship (PHYS 469) counts towards physics electives for both the major and the minor.

***[PHYS 318] Biophysics and Medical Imaging***

This course is a calculus-based study of biophysics and medical imaging techniques and topics covering optical microscopy, computed (axial) tomography (CT or CAT), magnetic resonance imaging (MRI), ultrasound imaging and positron emission tomography (PET). Techniques in real space and Fourier space imaging will be covered including resolution, aberrations and exposure limitations. Special attention will be given to radiation effects and nuclear medicine topics. This course will use cooperative learning techniques along with guided labs covering selected techniques.

***[PHYS 322] Elementary Modern Physics***

An introduction to special relativity, the Bohr atom, wave mechanics and the Schrodinger equation, the hydrogen atom, many electron atoms, nuclear properties and reactions and elementary particles.

***[PHYS 325] Optics***

This course covers geometrical and physical optics including paraxial theory, interference, diffraction, polarization and optical instruments.

***[PHYS 330] Intermediate Mechanics***

An advanced unified approach to physical problems: Newton's Laws; particle dynamics in one, two, and three dimensions; systems of particles, gravitation, moving reference frames; Lagrange's equations, dynamics of rigid bodies; Hamilton's equations.

***[PHYS 342] Introduction to Research***

The course will prepare students for independent undergraduate research. The students will be introduced to the literature search process, common research techniques, safety aspects, faculty research interests and applications of science in industry.

***[PHYS 350] Computational Methods for Physical Science***

This course is an introduction to solving problems by computer using techniques pertinent to students in the physical sciences. Topics are

covered in relation to specific problems in the physical sciences. Topics may include matrix manipulation, numeric integration and differentiation, and numeric solution of differential equations.

***[PHYS 370] Electromagnetic Theory***

Advanced study of electromagnetism including algebra and calculus of vectors, electrostatics in a vacuum and in dielectric materials, magnetostatics in nonmagnetic and magnetic materials, Maxwell's Equations and electromagnetic waves.

***[PHYS 380] Thermodynamics***

Elements of classical thermodynamics, kinetic theory and statistical mechanics.

***[PHYS 389] Learning Assistant Program Seminar***

This seminar is designed for students who are either currently serving as a Learning Assistant (LA) or are planning on applying to become an LA in the future. Seminar topics provide pedagogical help for LAs to enable them to support and facilitate active learning by the students in their assignments.

***[PHYS 394] Physics Research***

Student and faculty member will work on a physics project of mutual interest. Course is repeatable, but only a total of 2 credits in any combination of seminar (PHYS 315), research (PHYS 394), and internship (PHYS 469) counts towards physics electives for both the major and the minor.

***[PHYS 430] Quantum Mechanics***

Application of quantum mechanics to atoms and molecules.

***[PHYS 440] Secondary Science Teaching Methods***

For secondary education students. Material and methods typical to high school physics.

***[PHYS 469] Internship***

Supervised practical work experience at an approved business, industry or workplace where physics principles are used. The student must work a minimum of 40 hours for each credit earned. During the semester, this is equivalent to 3 hours per week for each credit. Enrolling in 4 or more credits requires department approval. Course is repeatable, but only a total of 2 credits in any combination of seminar (PHYS 315), research (PHYS 394), and internship (PHYS 469) counts towards physics electives for both the major and the minor.

***[PHYS 492] Senior Project***

A project involving experimental and/or theoretical research on a physics topic with extensive library research as well. A detailed written report and an oral presentation are required.

## Political Science

***[POL 105] Making Sense of Politics***

This course is designed to help the citizens of modern society understand the recurring principles, practices, and patterns of politics. Having learned how politics affects our lives every day, students can become informed participants at the local, national, and global levels. MnTC Goal 5.

***[POL 120] American National Government and Politics***

This course examines the United States national government; how and why it works. This course will analyze the role of institutions on decision-making and the consequences for public policy. It will address what political science and other social sciences tell us about factors that influence politics, government and the policies that result from the process. MnTC Goal 5 and 9.

***[POL 125] Introduction to Paralegal***

Provides an overview of the paralegal profession and the legal system to assist students in their career decision making process.

***[POL 140] Political Statecraft***

Statecraft is the art of crafting governmental affairs. This class will explore the use of problem solving simulations to expose students to how democracies, constitutional monarchies,

dictatorships, and governments in a state of revolution work to approach and solve public problems such as funding social programs, confronting natural disasters, and addressing military crises. MnTC Goal 2.

***[POL 160] International Relations***

Nation-state system: the network of economic, political, cultural and technological interdependence; power, diplomacy, intelligence, war and the arms race. MnTC Goal 5 and 8.

***[POL 201] You and the Law***

To acquaint students with basic information about how their lives will be impacted by the law in numerous areas including marriage, death, employment, retirement, property ownership, consumer status, personal injury and criminal law. This course is open to all students. MnTC Goal 9.

***[POL 210] Introduction to Political Science***

An introduction to the major questions of political science and the scientific study of politics. Conceptual development is examined as represented in the major fields of political science.

***[POL 221] Minnesota State and Local Government***

A study of the basic functions, structure, procedures and problems of American state and local government, with an emphasis upon intergovernmental relations. MnTC Goal 5 and 9.

***[POL 230] Introduction to the Law***

The philosophy of law; its social context; justice and its implications; evolution of legal concepts and systems.

***[POL 251] Legal Research and Writing***

Introduction to legal research and analysis. Students will develop skills in legal issue identification, analysis and research through progressively more complex exercises, including preparation of a case brief, legal memorandum and a correspondence project.

***[POL 265] International Protection of Human Rights***

This course focuses on the contemporary concern with human rights in its political, social, cultural, and legal contexts. It examines the history, philosophy, and legal foundations of the human rights movement, and how the ideas and context of human rights are realized in different societies.

***[POL 290] Topics in Political Science***

Examination of an issue at an introductory level. May be repeated as topic varies.

***[POL 310] Political Science Research Methods***

Introduction to empirical research in political science; the nature and role of theory, research design, measurement, and the selection and interpretation of inferential statistics.

***[POL 311] Civil Procedure I***

The substantive and procedural law of civil litigation, with emphasis on the Rules of Civil Procedure, in both state and federal court systems.

***[POL 315] Political Thought***

Selected reading and analysis of the major ideas and concepts that have influenced the evolution of modern political ideas. MnTC Goal 9.

***[POL 320] Family Law***

The law of domestic relations, including marriage, separation, divorce, annulment, adoption, custody, and other topics.

***[POL 321] Employment Law***

An exploration of the legal nature of the employment relationship including contract and liability issues and major stages of the employment relationship, including hiring, evaluation and termination. Coverage includes antidiscrimination law and the Family and Medical Leave Act.

***[POL 322] Executive and Legislative Process***

Legislative and executive decision-making and organization. Relationships between the two branches and with other parts of government, political parties, and the political process.

***[POL 324] Political Parties and Interest Groups***

This course will examine the role of parties in American politics and the relationship between parties and interest groups which is relatively new to American politics. The course will examine how parties compete with and complement one another. The behavior of parties and interest groups in elections and governance will be examined.

***[POL 325] Interviewing***

Development of the skills necessary to elicit comprehensive factual information about legal issues and to assist the client in understanding the process and procedures of the legal system.

***[POL 327] Campaigns & Elections***

This course examines the politics of campaigns and elections in the United States. Topics include campaigns in democratic theory, candidate selection, campaign finance, campaign strategy and organization, the role of parties and interest groups, public opinion polling, and campaign communication. MnTC Goal 9.

***[POL 328] The Media and Politics***

The media's role in politics, including relations between the media and government.

***[POL 331] Debtor-Creditor and Bankruptcy Law***

The study of law relating to the extension of credit, collection of debts, debtors' and creditors' rights, and bankruptcy, including liquidation, business reorganizations, and adjustment of debts.

***[POL 332] Constitutional Law I: Institutional Powers and Constraints***

This course focuses on the topics of judicial review, separation of powers, federalism, and economic regulation, including commerce and taxation, substantive due process, and eminent domain.

***[POL 333] Constitutional Law II: Civil Rights and Liberties***

This course focuses on the First Amendment freedoms -- speech, press, expression, assembly and religion and questions of race, gender and ethnicity, due process, equal protection, voting rights and the right to privacy under the Fifth and Fourteenth Amendments. MnTC Goal 7.

***[POL 335] Criminal Law***

Substantive criminal law; development of principles, meaning and applications of criminal law; current issues and institutions. Same as CJ 335

***[POL 337] Criminal Procedure***

The course will examine contemporary interpretations of the U.S. Constitution's protections for the criminally accused, which are primarily found in the 4th, 5th, 6th, 8th, and 14th Amendments.

***[POL 340] Public Administration***

The structure, operation, and politics of public bureaucracy, and its relations with other actors and institutions in government.

***[POL 341] Public Policy***

An examination of the development, implementation, and evaluation of public policy.

***[POL 345] Environmental Politics***

The course examines how national and international politics affects the success (and failure) of environmental policies. Since environmental policy is shaped in political arenas by a myriad of social and economic forces combined with observations of the natural world, the course content examine environmental issues with more of an inter-disciplinary approach. Students will gain an intellectually more mature understanding of how environmental policy is made, modified and implemented (or not) in response to political demands that often ignore the scientific realities of the environment. MnTC Goal 10.

***[POL 346] Public Benefits***

A study of the substantive and procedural law of government benefit programs, including Supplemental Security Income, workers compensation, unemployment compensation, and Social Security Retirement and Disability insurance.

***[POL 349] Great Power Politics***

International survey of major wars, the development of states' military and financial capacity, the course of imperial expansion and retreat, diplomatic alignments and alliances, arrangements for international trade and investment, as well as efforts to create international institutions by major national powers in the modern world.

***[POL 350] Comparative Governments of Western Europe***

Comparative examination of the political systems of Britain, France, Germany, and Italy; trans-national cooperation among them.

***[POL 351] Contract Law and Drafting***

A study of the law of contracts, including elements of formation, duties of parties to contracts, discharge of parties to a contract and enforcement of contracts, including the ability to perform legal research relevant to contract law, perform critical analysis of various contract issues, negotiation of contract terms, and the ability to draft various components of contracts as they relate to industry, consumer relationships, and daily living.

***[POL 352] Political Problems in Developing Countries***

Social and economic conditions affecting political institutions in the developing counties. The Third World in international relations and the political economy of development. MnTC Goal 8.

***[POL 356] Soviet Russia and the Global Cold War***

This course examines the events of the creation of the Soviet Union and its participation in global cold war ranging from the first World War through its collapse in 1989. It will discuss the relationship between the USSR and its satellite states in Eastern Europe and its client states throughout the world, focusing on case studies of conflicts both within the alliance as well as with outside forces including those of NATO. Discussion of the causes of the eventual collapse of the Warsaw Pact and the emergence of a post-Soviet state under Vladimir Putin will also follow. MnTC Goal 8.

***[POL 360] American Foreign Policy***

Analysis of U.S. foreign policy, with an emphasis on decision making and the policy process.

***[POL 368] International Organizations***

This course explores the nature, dimensions and functions of international organizations as a new and multi-faceted phenomenon. It examines the emergence, growth and proliferation of international organizations and the factors that have contributed to this development. It also explores the nature of the international environment, the constraints and opportunities which flow from this environment, the role of an international secretariat, its scope and limitations. It focuses on both intergovernmental and non-governmental organizations.

***[POL 375] Legal Ethics***

The study of law governing the professional ethics of attorneys with emphasis on the Rules of Professional Conduct and their implications for paralegals.

***[POL 380] Real Property Law***

The law dealing with interests in, ownership and leasing of, and title to real estate. Emphasis is also placed on official descriptions, systems for recording, and procedures and documents used for the sale or transfer, lease, and zoning of real property.

***[POL 390] Topics in Political Science***

This is an upper division topical course and may be repeated when the topic varies.

***[POL 405] Wills, Estates and Taxation***

A study of the procedures, documents and other techniques used in the planning for transfer of property after death, administration of estates and the preparation of will, probate documents and an estate tax return.

***[POL 410] Civil Procedure II***

A study of the procedures, documents and other techniques used in a legal setting emphasizing trial practice. Topics included will be case intake, discovery, negotiations, trial preparation, trial practice and post judgment relief.

***[POL 416] Elder Law***

A study of the various public benefits programs that provide economic maintenance and financing of health care for the elderly, including medical assistance and Medicare. Special concerns in legal representation of the elderly. An exploration of the laws regarding self-determination and planning for incapacity.

***[POL 420] Criminal Litigation***

A practice-oriented study of the procedures, documents, and techniques in criminal law cases. Emphasis on the preparation, organization, and management of criminal litigation documents and materials; discovery; interviewing and investigation; trial preparation; assistance at trial and other proceedings; and post-conviction relief.

***[POL 425] Advanced Legal Research and Writing***

Integration and application of methods and techniques of legal research and writing, building on and supplementing skills acquired in POL 251. Preparation of complex multiple-issue legal memoranda and briefs.

***[POL 435] Personal Injury***

A study of the procedural and substantive law of personal injury, including negligence, products liability, strict liability, and insurance.

***[POL 469] Internship***

A supervised practical experience in political science. A maximum of four credits may be used as electives to fulfill the "Major Requirements in Political Science", and a maximum of 12 internship credits may be applied to the degree.

***[POL 470] Government Benefits***

This course will provide non-paralegal majors with a brief overview of a variety of federal and state public assistance health care and income maintenance programs including: Social Security, Supplemental Security Income, Supplemental Nutrition Assistance Program, Temporary Assistance to Needy Families, Minnesota Family Investment Program, Medical Assistance, Medicare, and North Dakota's Training, Education, Employment and Management.

***[POL 490] Topics in Political Science***

This is a senior level topics course and may be repeated as topic varies.

***[POL 497] Independent Study in Political Science***

Readings, research papers, special projects with the close supervision of a member of the department.

## Project Management

***[PMGT 300] Project Management and Scheduling***

This course is intended to teach the students an introduction to project management, project software, PMBOK knowledge areas, and each phase of a PM methodology. The topics include reviewing project management careers, explaining the PM role, discussing basic terminology, reviewing a business case, charter and scope document. Other topics include stakeholder management, team selection and a brief introduction to a Risk Management Plan.

***[PMGT 301] Introduction to CRM***

This course will help you understand the basic concepts of customer relationship management and how they manifest themselves into business strategy. This course will use Microsoft Dynamics

CRM to illustrate and implement these strategic concepts into real life business scenarios.

***[PMGT 385] Process Leadership***

Development of project leadership with emphasis on team building, leadership, problem solving, negotiation, entrepreneurship, and resource planning. Case studies, class discussion, written assignments, and oral presentations are utilized in instructional delivery.

***[PMGT 390] Topics in Project Management***

Topics in Project Management

***[PMGT 400] Agile Project Management***

This course is intended to teach the Advanced Project Management -Agile Project Management techniques and approaches. Today's project leaders and teams find themselves in an environment disrupted by exponential advances in technology and demands from customers for more immediate delivery of value. This course will equip the student to work in the messy middle ground between predictive and agile approaches, who are trying to address rapid innovation and complexity and who are dedicated to the team's improvements and the customers satisfaction.

***[PMGT 401] Customer Relationship Management Consulting***

In this course, students will explore both the theoretical and practical application of guiding a customer through a buying decision as well as continual engagement throughout the customer life-cycle. Moreover, this course will collectively collaborate on real-life case studies involving both engaged and not engaged clients and customers.

***[PMGT 433] Dale Carnegie Skills for Success***

A key set of skills needed for any project manager are the abilities to not just build rapport with teams of people who you have little to no direct authority over, but to also accomplish your objectives by gaining their willing cooperation. This course gives you the human relations skills to thrive in any setting. Additionally, you'll discover how to form closer, more rewarding relationships built on trust and respect. This course focuses on increasing your confidence and competence in interacting with others. This will help you gain the influence you need to reach new heights in your personal and professional life. Same as OM 433.

***[PMGT 456] Project Management in Business***

This course focuses on identifying and resolving the dilemmas that cause the overwhelming majority of projects to take too long, cost too much, and fall short of expectations.

***[PMGT 490] Topics in Project Management***

Topics in Project Management

***[PMGT 492] Project Management Capstone***

This course will assess the student's knowledge and application skills across the Project Management Curriculum at MSUM (i.e. PMGT 300, PMGT 385, MGMT 456, and PMGT 400). This course synthesizes all the variables in a project including people, processes, methodologies, and tools and prepares you to take the CAPM exam. The course will emulate a real project with the execution of a live project, the analysis of an advanced project management case study or a research project.

## Psychology

***[PSY 113] General Psychology***

Survey of content and methods of modern psychology. MnTC Goal 5.

***[PSY 202] Developmental Psychology***

Psychological development of the individual from conception to death, including genetic, pre-and post-natal influences; relations with parents and peers; social, emotional and intellectual development.

***[PSY 220] Social Behavior***

The influence of other people on the behavior and attitudes of individuals. Topics include attitude change, the effect of being a part of a group,

attraction, aggression, sex roles and discrimination. Theory and application. MnTC Goal 5.

***[PSY 230] Statistics for the Behavioral Sciences***

Descriptive and inferential statistics, hypothesis testing. Analysis of variance designs; multiple-comparison tests; nonparametric tests; computer application to statistics. Laboratory included.

***[PSY 230L] Statistics for Behavioral Sciences Laboratory***

This is a zero-credit lab that accompanies PSY 230.

***[PSY 235] Introduction to Neuroscience***

This course examines the broad and growing field of neuroscience and introduces students to neural anatomy and communication, as well as the structure and function of cells, synapses, networks, major systems in the central and peripheral divisions of the human and animal nervous system, and their relation to behavior.

***[PSY 261] Personality***

Introduction to the study/explanation of human behavior, motivation and conflict emphasizing personality as viewed by a variety of theorists.

***[PSY 265] Health Psychology***

Study of psychosocial influences in health maintenance and prevention of illness. Emphasis is on cognitive-behavioral intervention to promote life-style changes and increase compliance with medical regimens.

***[PSY 275] Behavior Modification***

Application of basic learning principles to the study of behavior change across community, home and school settings. Topics include reinforcement, extinction, punishment, shaping, self-management, and clinical behavior analysis.

***[PSY 290] Topics in Psychology***

This is a lower division topics course and may be repeated when the topic changes.

***[PSY 294] Directed Research***

Conduct of research under direct supervision of a faculty member. Emphasis is on experience and learning with regard to research design and analysis.

***[PSY 310] Psychology of Women***

The interacting effects of biology, physiology, and psychology on female development, providing evidence on sex differences and role differentiation.

***[PSY 317] Alcoholism and Drug Abuse***

Informational survey and study of alcoholism and drug abuse, a major health problem with substantive psychological components. The physiological, psychological, and social impact of drugs and their misuses and abuses will be discussed. Students must have taken Psy 113, or have the consent of the instructor.

***[PSY 320] Social Psychology***

Theories and research involving individual's reactions to others. Topics: social perception, attraction, social influence, aggression, social exchange. Students must have earned six credits in psychology courses, prior to enrolling in this course.

***[PSY 323] Industrial/Organizational Psychology***

Understanding the behavior of individuals at work plus psychology's contribution to their selection, training, evaluation and motivation. Students must have earned six credits in psychology courses prior to enrolling in this class.

***[PSY 324] Environmental Psychology***

The scientific study of the relationship between humans and their social and physical environment from a psychological perspective and other related fields. Topics include: environmental perception and cognition, crowding, noise, privacy, urban environments, the psychology of sustainability and designing more habitable environments. MnTC Goal 10.

***[PSY 325] Introduction to Art Therapy***

This course will present an introductory experience to the creative process as visual expression using a variety of media and approaches to art therapy. This course will introduce art therapy history, theory, principles and practice. Students will explore the professional field and ethical issues related to art therapy.

***[PSY 330] Experimental Methods***

Course emphasizing report writing (APA editorial style), and research methodology, and application of statistics.

***[PSY 342] Learning and Memory***

A survey of classical and operant conditioning, observational learning, and models of memory storage and retrieval. Students must have earned six credits in psychology courses prior to enrolling in this class.

***[PSY 345] Brain and Behavior***

Basic biological facts and their relationship to behavior. An analysis of the senses, hormonal systems, brain and peripheral nervous system will be included. Students must have earned six credits in psychology courses prior to enrolling in this course.

***[PSY 348] Cognitive Psychology***

Study of cognitive theories and processes.

***[PSY 360] Sensation and Perception***

This course explores the history of perception research, current conceptual understandings, research techniques, underlying physiological mechanisms, and scientific literature. All human senses will be investigated, including vision, hearing, smell, taste, touch/pain, and others.

***[PSY 390] Topics in Psychology***

This is an upper division topics course and may be repeated when the topic changes.

***[PSY 402] Child/Adolescent Psychology***

Human development from the prenatal period through adolescence. Students must have earned six credits in psychology courses and have junior standing prior to enrolling in this class.

***[PSY 403] Adulthood and Aging***

Discussion of some of the major theoretical approaches and current issues in human development from young adulthood through old age and death. Students must have earned six credits in psychology courses and have junior standing prior to enrolling in this class.

***[PSY 417] Child Psychopathology***

Includes an overview of the characteristics, classification, and developmental course of disorders of childhood and adolescence. Introduces an integrative approach incorporating different theoretical models. Considers biological, familial, social and cultural contexts and individual differences. Prevention and intervention approaches discussed. Prerequisite: 9 credits of Psychology courses

***[PSY 430] Advanced Experimental Psychology***

Course emphasizing the critical discussion of research topics and journal articles of interest to majors, as well as the execution of an independent research project.

***[PSY 463] Abnormal Psychology***

Descriptive and explanatory models are detailed in relation to their relevance to behavior pathology and the prevention of abnormal behavior. Students must have earned nine credits in psychology courses and junior standing or have the consent of the instructor. It is strongly recommended that students have taken PSY 261 prior to taking this course.

***[PSY 465] Clinical Psychology***

Discussion of techniques of psychotherapy, crisis intervention, interviewing, clinical assessment and prevention of disorder. Emphasis on psychotherapy as a process of understanding. Students must have earned nine credits in psychology courses and

junior standing or have the consent of the instructor.

***[PSY 469] Internship***

Placement in a practical setting under appropriate individual or agency and departmental supervision. Students must be psychology majors with at least junior standing and must have a GPA of 2.5 or higher. A maximum of 12 internship credits may be applied to the degree.

***[PSY 470] History and Systems of Psychology***

An overview of the development of psychology from associationism to the present. Schools, fields and areas of psychology are emphasized. Students must have earned nine credits in psychology courses and have junior standing prior to enrolling in this class.

***[PSY 475] Applied Behavior Analysis***

Application of basic applied behavior analysis (ABA) principles to the development of assessment methods and behavioral interventions across a variety of settings and populations. Topics include professional ethics, behavioral measurement, functional behavioral assessment, and behavioral intervention programming. Prerequisite: PSY 113 General Psychology or equivalent.

***[PSY 490] Topics in Psychology***

Coverage of a topic not central to other courses in the department. Topics will vary depending on the interest of students and faculty. Students must have earned nine credits in psychology courses and have junior standing prior to enrolling in this class.

***[PSY 492] Seminar in Psychology***

For majors and advanced students in other areas. Student participation emphasized. Content may vary each semester. Students must have earned nine credits in psychology courses and have junior standing prior to enrolling in this class. Students should have completed PSY 330 prior to enrollment.

***[PSY 494] Undergraduate Research***

Student assumes responsibility in the implementation of research related to interests of a faculty supervisor or in the area of their own choosing. Weekly meeting required. Must have completed 9 credits of psychology coursework and have junior standing.

## School of Teaching and Learning

***[STL 226] Social Studies Content for Elementary Teachers***

In this course, students will receive background on the content of social studies with special emphases on the fields of geography, history, government and economics, which are the backbone of the elementary and middle school social studies curriculum. Other parts of the social studies will also be discussed. In addition, students will receive background on the history, government and culture of Minnesota's American Indian groups.

***[STL 230] Child Development and Learning for Teachers***

This course explores the growth, development and learning of children from conception through adolescence. This course examines influences on child development including culture, family, community, and policy and practices. The relationship between development and learning is explored along with implications for teaching.

***[STL 295] Foundations of Language and Literacy***

This course examines language and early literacy development in children from birth to age six. Emphasis is given to the relationship between language acquisition and early literacy, the impact of sociological and cultural factors on early literacy development, and the wide variety of home and school experiences that provide children with a solid foundation of success for learning to read and write. This course includes an introduction to the five pillars of reading, with a particular emphasis on phonemic awareness, phonics, and vocabulary.

***[STL 325] Principles of Inclusive and Responsive Teaching: Technology Emphasis***

This course will explore principles necessary for successful inclusion across elementary settings. Effective use of technology and assistive technology to support student needs will be a special emphasis of the course. The course will also cover communication strategies, working with English Language Learners, and other students with diverse needs in order to create inclusive educational environments.

***[STL 365] Responsive Teaching I: Learning Environments and Differentiation***

This course will focus on teaching students with diverse needs in a variety of settings. The course is designed for both regular and special educators to gain knowledge, skills, and dispositions related to best practices for teaching in inclusive environments – including a strong emphasis on differentiated instruction, universal design for learning and collaboration. This course serves as a methods course for education majors; therefore, an emphasis will be placed on students connecting theory to practice and strategies into teaching practice.

***[STL 380] Models of Teaching and Assessment***

Teacher candidates will learn how assessment and instruction are tied together in providing appropriate instruction based on student need. Models of teaching will be studied and lesson plans will be developed using a variety of instructional models. Candidates will be introduced to principles and methods of effective and appropriate assessment that apply to children grades K-6 and across multiple subject areas. Additionally, in this course, the candidate continues to develop an understanding of how students learn and how students develop intellectually, socially, and emotionally via differentiation and classroom environment supports. Candidates will continue to consider the need for adapting instruction to meet individualized learning needs.

***[STL 390] Topics in STL***

This is an upper division topical course which may be repeated when the topic changes.

***[STL 395] Literacy Methods I***

This course focuses on methods of literacy instruction for teaching children in preschool to grade three. Emphasis is placed on instructional strategies to support readers and writers across the five pillars of reading (phonemic awareness, phonics, vocabulary, fluency, and comprehension) within a comprehensive literacy framework. This course builds upon the content and concepts related to the five pillars introduced in STL 295. Further, this course includes a strong emphasis on the role of assessment in the teaching and learning process and exposes candidates to a variety of literacy assessments.

***[STL 441] Children's Literature: Content and Methods***

This course requires close reading and study of children's literature--folktales, myth, hero tales, picture books, poetry, modern fantasy, informational text and realism. Emphasis is placed on the nature of children's literature, literature from diverse cultures, criteria for selection, and strategies for reading/teaching literature as a content field in the elementary school.

***[STL 452E] Senior Level Field Experience***

Supervised field experience for Elementary Inclusive Education students. This experience takes place the semester just before student teaching. Students will demonstrate proficiency in knowledge, skills and dispositions needed to successfully student teach the following semester.

***[STL 465] Responsive Teaching II: Collaboration and Team Decision Making***

Students will be expected to apply principles of effective inclusive environments in authentic settings and reflect upon their practices. An emphasis of the course will be collaboration, parent and professional relationships, and making decisions as a team to meet the needs of individual learners in inclusive settings. Students will have extensive opportunities to plan differentiated lessons considering needs outlined in Individualized

Education Plans and using grade-level content standards

***[STL 474] Methods in Teaching Elementary Science and Environmental Education***

Methods course for teaching science and environment education in elementary settings. Emphasizes inquiry learning, methods of instruction and assessment, place-based environmental education, integration across the curriculum, safety, and responsiveness to student diversity. Recommended Corequisite: STL 476.

***[STL 475] Teaching Reading and Writing Grades 4-6***

Methods course for teaching language arts in the intermediate grades. In this course candidates will learn strategies to strengthen students' ability to read advanced texts as well as the use of reading and writing to learn content across the curriculum. Candidates will examine a variety of instructional approaches, including: literature circles, integrating literature into content learning, and building comprehension and vocabulary through integrated experiences. In addition, students will explore a variety of language arts curricula. Candidates will develop a range of strategies to support older students' reading and writing development through a response to intervention instructional approach.

***[STL 476] Methods for Teaching Elementary Social Studies***

Content, philosophy, and organization of social studies program; methods of instruction and curricular issues. Recommended Co-requisite STL 474.

***[STL 480] Advanced Models of Teaching and Assessment***

In this course teacher candidates will build upon their knowledge of the teaching and learning cycle introduced in coursework throughout their program. Candidates will plan lessons which incorporate deep student engagement, inclusive teaching strategies, and appropriate formative and summative assessment practices. Lesson plans will focus on classroom standards and lesson objectives with consideration given to learner needs. Candidates will implement their lesson plans in their placement classroom with the opportunity to analyze and reflect upon their instruction. The course is taken concurrently with an extensive field placement in order to allow students to demonstrate proficiency in utilizing the teaching and learning cycle. The course will also place continued emphasis on collaboration and team-planning for meeting individual learner needs.

***[STL 481E] Student Teaching: Elementary***

Supervised student teaching experience in an elementary school setting. Includes weekly seminar.

***[STL 482] Behavior, Trauma, and Mental Health in the Classroom***

This course will focus on developing an understanding of trauma in children as well as other childhood experiences manifesting in challenging school behaviors. The course will also provide teacher candidates with strategies to address challenging behaviors, trauma, and mental health in school-age children and youth. Candidates will be challenged to reflect on their own biases and interpretation of behavior and will develop a plan for their own self-care for continuing professional growth.

***[STL 490] Topics in School of Teaching and Learning***

This is an upper division topical course which may be repeated when the topic changes.

***[STL 495] Literacy Methods II***

This is a methods course for teaching language arts in grades 4-6. In this course candidates will learn strategies to strengthen students' ability to read advanced texts as well as the use of reading and writing to learn content across the curriculum. Candidates will examine a variety of instructional approaches, including: literature circles, integrating literature into content learning, and building

comprehension and vocabulary through integrated experiences. In addition, students will explore a variety of language arts curricula. Candidates will develop a range of strategies to support older students' reading and writing development through a response to intervention instructional approach.

***[STL 497] Independent Study in STL***

Independent study in the School of Teaching and Learning.

## Social Work

***[SW 250] Introduction to Social Welfare and Social Work***

Overview of social welfare and social work, including fields of practice, institutions, populations served, special issues, and an introduction to some social work methods and theories.

***[SW 308] Social Gerontology***

This course introduces students to the field of social gerontology for providing an overview of the significant sociological perspectives, social issues, and empirical social science research pertaining to the phenomenon of aging in society. The main goal of the course is to foster an understanding of aging as a process that is characteristic of both individuals and societies through a focus on social factors that shape the individual's experience of aging and the consequences of an aging population for social institutions. Same as SOC 308.

***[SW 402] Child Welfare Services***

Problems, policies, and practices in the area of child welfare. Content includes: children's guardianship, the juvenile court system, children's out-of-home care, child protection services, foster care and adoption. The listed prerequisite can be waived with consent of instructor.

***[SW 405] Human Behavior and the Social Environment***

Overview and application of systems theory. Assess the interactions among individuals and between individuals and social systems. Includes an integration of bio-psycho-social variables that affect human development and behavior. Prior or concurrent enrollment in SW 250, PSY 202, and BIOL 104 is required.

***[SW 410] Gerontology: Policy and Practice***

This course is a senior seminar for gerontology majors. Four to six hours a week will involve field experience working in a facility involving elderly care. Two hours a week will involve in-class discussions of the field experience as well as an examination of social policies relating to the elderly, including Social Security, Medicare, the Older Americans Act and Medicaid. Same as SOC 410.

***[SW 411] Chemical Dependency***

Exploration of chemical use, abuse, and addiction, with emphasis on alcohol as the drug of choice. Prevention, intervention, special problems of women, youth, elderly, and minority populations are examined. The listed prerequisite can be waived with consent of instructor.

***[SW 415] Research Methods in Social Work***

Study of research methods (designs) and processes including assessing problems, analyzing and presenting data, and monitoring and evaluating intervention and services in social work practice. Admission to the Social Work program is required.

***[SW 420] Generalist Practice: Individuals***

Generalist social work practice utilizing the problem-solving model with focus on the knowledge, values and skills for working with individuals. Prior or concurrent registration in SW 400 is required.

***[SW 431] Readings in Social Welfare***

Reading in-depth in selected areas of social work under faculty supervision and consent. Credits determined by the extent and depth of the readings.

***[SW 432] Generalist Practice with Families***

This course is designed to give students beginning competency skills and knowledge in generalist social work practice using the Generalist Intervention Model with families. The family as a whole is viewed as the client system and is the unit of attention. An ecological perspective and systems view of practice is used. Intervention theories and practice skills are studied and applied. The course builds on knowledge grounded in the liberal arts studies, including courses such as Developmental Psychology (Psych 202), Introduction to Sociology (Soc 110), Social Psychology (Soc 120), Human Biology (Biol 104), Multicultural Studies (MCS), and Women's Studies (WS) courses. This course draws from the knowledge and skills learned in SW 330 and SW 400, as well as interviewing and assessment skills from SW 420.

***[SW 435] Generalist Practice: Families/Groups***

This course is designed to give students beginning competency skills and knowledge in generalist social work practice using the Generalist Intervention Model with the mezzo systems families and groups as the target area of practice. An ecological perspective and systems view of practice is used. Intervention theories and practice skills are studied and applied to both the family and the group as the target areas of intervention. The course builds on knowledge grounded in the liberal arts studies, including courses such as Developmental Psychology (PSY 202), Introduction to Sociology (SOC 110), Social Psychology (SOC 120), Human Biology (BIOL 104), American Multicultural Studies (AMCS), and Women's and Gender Studies (WS) courses. This course draws from the knowledge and skills learned in SW 330 and SW 400, as well as interviewing and assessment skills from SW 420.

***[SW 442] Generalist Practice with Groups***

This course offers an overview of the basic knowledge, values, and skills applied in social work with groups. Students will become acquainted with the stages of group development and the dynamics, objectives, and tasks of each stage. General leadership skills will be explored as well as specific interventions with the individual group member, the group as a whole, and the group's external environment. The class will also examine groups as manifestations of societal/cultural norms and will discuss the specific knowledge, values, and skills related to working with groups that have diverse membership. The student will gain experience as a member and leader of a growth group and will apply the knowledge and skills learned and discussed in class to her/his growth group process.

***[SW 450] Generalist Practice: Communities and Organizations***

Generalist social work practice utilizing the problem solving model with focus on the knowledge, values and skills for working with organizations and communities. Prior or concurrent enrollment in SW 460 is required.

***[SW 460] Social Policy and Policy Practice***

Development of social welfare policies and current policy structures, and policy practice, advocacy, analysis, and evaluation used in agency, community, and legislative settings. Admission to the Social Work program is required. Prior or concurrent registration in PARA 470 is also required.

***[SW 468] Integrative Orientation to Internship***

Social Work 468 students will examine and integrate field theory with field experience preparation as students learn about the expectations and parameters of the social work internship experience, the diversity of local and regional human services agencies, emerging trends in practice, and the development of professionalism and social work identity. Students will actively engage in internship preparation and finalization and explore methods for professional self-care. A key element in the concept of seminar is participation and discussion. The willingness and ability of students to actively participate in every class is essential to the successful completion of this course.

***[SW 469] Internship***

Required field experience under agency and departmental supervision. Opportunity to practice/integrate social work core competencies and practice behaviors (knowledge, value, and skills) obtained in class. Planning must occur one semester prior to internship. Students must have completed 90 hours of human service experience, have a minimum cumulative MSUM GPA of 2.5, and be concurrently enrolled in SW 470. Student must also have completed all major restricted electives and other electives.

***[SW 490] Topics in Social Work***

Selected topics of concern to social work students and human service professionals. May be repeated to 6 credits. Listed prerequisite can be waived with consent of instructor.

***[SW 492] Field Supervision and Integrative Seminar***

Seminar during internship to promote integration of academic knowledge and field learning with a focus on professional and ethical issues. Must be concurrently enrolled in SW 469. The instructor will also be the primary liaison between the university and field setting. The instructor will coordinate and conduct site visits for the internship experience.

***[SW 497] Independent Study***

Individual study, project, or research of special interest. Repeatable to 6 credits. May apply to the social work elective requirement for the major. Listed prerequisite can be waived with consent of instructor.

***[SW 499] Social Work Workshops***

Workshops in the Department of Social Work to meet specific needs of students and agency personnel in the community.

## Sociology

***[SOC 110] Introduction to Sociology***

Introduces the sociological approach to understanding the structure and dynamics of society. Focuses on socialization, organization, social inequality, institutions, and social change. MnTC Goal 5.

***[SOC 120] Social Psychology***

This course examines the relationship between society and individuals and the methods, theories, and findings of research in social psychology. Special attention is given to the social properties of mind, self, and human development. MnTC Goal 5.

***[SOC 210] Social Problems***

Examines such problems as poverty crime, urban problems, family problems, environmental problems, and war and terrorism. MnTC Goal 5.

***[SOC 219] Sociology of Sexual Behavior***

Examines sociological and social psychological perspectives and research on sexual behavior. Topics include childhood sexual behavior, adolescent sexual behavior, sex and mate selection, marital sex, extramarital sex, and various forms of sexual variation.

***[SOC 220] Social Deviance***

Theory, research and commentary on the sociology of deviant behavior. MnTC Goal 5.

***[SOC 290] Topics in Sociology***

This course will consist of varying topics in the discipline of sociology.

***[SOC 300] Criminology***

This course will survey the history of crime in society, including theories, research and commentaries on crime and delinquency.

***[SOC 301] Delinquent Behavior***

Delinquent behavior and programs for its prevention, treatment and control. Same as CJ 301.

***[SOC 302] Social Theory***

Examines major theoretical approaches to the understanding of social structure and change, with special attention to the classical works of Marx, Weber, and Durkheim.

***[SOC 303] Punishment and Prisons***

This class traces the origins and development of incarceration as the principle response to crime in the U.S. It explores changing punishment practices, reasons offered to justify punishment, and the social organization of contemporary U.S. prisons.

***[SOC 304] Community Corrections***

Sociological analysis of community corrections, emphasizing probation and parole.

***[SOC 308] Social Gerontology***

This course introduces students to the field of social gerontology for providing an overview of the significant sociological perspectives, social issues, and empirical social science research pertaining to the phenomenon of aging in society. The main goal of the course is to foster an understanding of aging as a process that is characteristic of both individuals and societies through a focus on social factors that shape the individual's experience of aging and the consequences of an aging population for social institutions. Same as SW 308.

***[SOC 309] Law and Society***

Relationships of law and society; social forces in law making; dynamics of law administration; social, cultural and behavioral effects of law; history and development of the legal profession; analysis of legal language and reasoning. Prerequisite may be waived with the consent of the instructor. Same as CJ 309.

***[SOC 310] Dominant-Subordinate Group Relations***

Theoretical, historical and contemporary examination of prejudice, discrimination, and inequalities organized around race, ethnicity, and gender divisions. Same as WS 310. MnTC Goal 5.

***[SOC 311] Sociology of Law Enforcement***

Examines the origin, history and development of policing in the U.S. Specific issues such as community relations, organization, discretion, and corruption are explored from an occupational standpoint in policing.

***[SOC 319] Society and the Environment***

Throughout time societies have struggled to maintain an appropriate balance between human groups and the physical environment. This course analyzes the social causes of environmental problems in an interdisciplinary fashion. Ecology, policy, politics, culture, ethics and history are all viewed through a sociological lens to explain the relationship between humans and the physical environment. The main goal of this course is to demonstrate the complexities of relationships between people and the environment. It also focuses heavily on the processes of social change. MnTC Goal 10.

***[SOC 320] Sociology of the Family***

Examines the theoretical issues and research findings pertaining primarily to American family life. Topics include dating and mate selection, alternatives to traditional marriages, marital structure and interaction, and marital dissolution.

***[SOC 325] Social Movements***

Analysis of movement origins, ideology, dynamics, organization, challenges and success in creating social change. Theories and case studies of past and current movements, global to local. MnTC Goal 9.

***[SOC 330] Sociology of Religion***

Emphasizes a sociological understanding of religion, magic, myth, patterns of religious organizations, secularization, new religion movements, and other related topics.

***[SOC 333] Sociology of Gender***

Focuses on the social construction of gender and consequences of gender stratification for women and men. Topics may include: gender differences; the concept of "gender role"; gender in the economic, political, and educational institutions; discrimination; and the feminist movement.

***[SOC 350] Methods and Statistics for Social Research***

Focus on the logic of science, a survey of basic methodologies, and introduction to descriptive and inferential statistics.

***[SOC 375] Sociology of Health and Medicine***

Social factors in health, illness, and medical care. Topics include the social construction of health/illness, the experience of illness, health professions and organizations, and the health care system.

***[SOC 390] Topics in Sociology***

Varying topics from the discipline of sociology.

***[SOC 407] Contemporary Sociological Theory***

This advanced undergraduate seminar introduces students to contemporary sociological theory. It centers on the development of the major theoretical frameworks used by contemporary sociologists to understand the late-modern world. The starting point is the 1920s, and continues to the last fin-de-siecle and beyond. Theoretical frameworks considered includes the following: structural functionalism, systems and network theories, critical theory, rational choice and exchange theories, structuralism, structuration theory, critical race theory, feminist epistemologies, theories on power and the body, and the influence of post-modern theory.

***[SOC 410] Gerontology: Policy and Practice***

This course is a senior seminar for gerontology majors. Four to six hours a week will involve field experience working in a facility involving elderly care. Two hours a week will involve in-class discussions of the field experience as well as an examination of social policies relating to the elderly, including Social Security, Medicare, the Older Americans Act and Medicaid. Same as SW 410.

***[SOC 412] Sociology of Complex Organizations***

Analyzes large-scale bureaucratic organizations. Topics include: the characteristics of bureaucracy; the uses of power by organizations; the effectiveness of organizations; and the impact of organizations on societal change.

***[SOC 450] Senior Seminar in Sociology***

This is the capstone seminar for sociology majors. Examines some of the most prominent theoretical and substantive issues identified by sociologists. The course will include a major paper and a seminar presentation.

***[SOC 451] Quantitative Methods***

The objective of the course is to offer hands-on experience in quantitative research methods and data analysis. Students will design and carry out a research project utilizing quantitative research methods, analyze data using descriptive and inferential statistics, conduct elementary hypothesis testing, and write reports of their findings. Students will gain experience using statistical packages for data analyses on computers.

***[SOC 452] Qualitative Methods***

This course provides advanced training in qualitative research though an applied approach whereby students carry out an original research project, from the initial conceptualization stage, through data collection and analysis, and writing the report, and presenting the findings. This advanced data analysis course provides training in several qualitative approaches in sociological research, with the central foci on ethnographic observations and depth interviewing.

***[SOC 469] Internship***

A supervised practical experience in sociology. A maximum of 12 internship credits may be applied to the degree. Internship credits may not apply to the minimum required for the sociology major.

***[SOC 490] Topics in Sociology***

Varying topics from the discipline of sociology.

***[SOC 497] Readings in Sociology***

A program of advanced readings in some topic under the supervision of an instructor. May be repeated to a maximum of 4 credits.

***[SOC 499] Topical Workshop***

This is a topical workshop course and may be repeated when the topic varies.

## Spanish

***[SPAN 101] Beginning Spanish I***

Fundamentals of Spanish. Development of the basic language skills of listening, speaking, reading, and writing with an emphasis on oral proficiency. Culture and language structure are also important components of the course. Not applicable toward the major or minor in Spanish. MnTC Goal 8.

***[SPAN 102] Beginning Spanish II***

Fundamentals of Spanish. Development of the basic language skills of listening, speaking, reading, and writing with an emphasis on oral proficiency. Culture and language structure are also important components of the course. Not applicable toward a major or minor in Spanish. Prerequisite SPAN 101 or equivalent proficiency. Students may demonstrate proficiency by taking the online Spanish Placement Exam on the website of the Department of Languages & Cultures (www.mnstate.edu/language). MnTC Goal 8.

***[SPAN 190] Topics in Spanish Language, Literature, and Culture***

Topics in Spanish language, literature, and culture. May be repeated since content may vary.

***[SPAN 201] Intermediate Spanish I***

Continued practice and review of the fundamentals of listening, speaking, reading, and writing. Classroom emphasis on oral skills. Readings on culture. Students who intend to pursue a major or minor in Spanish must take SPAN 211 concurrently with this class. Students must demonstrate proficiency by taking the online Spanish Placement Exam on the website of the Department of Languages & Cultures (www.mnstate.edu/language/Spanish.cfm). MnTC Goal 8.

***[SPAN 202] Intermediate Spanish II***

Continued practice and review of the fundamentals of listening, speaking, reading, and writing. Classroom emphasis on oral skills. Readings on culture. Students who intend to pursue a major or minor in Spanish must take SPAN 212 concurrently with this class. Students must demonstrate proficiency by taking the online Spanish Placement Exam on the website of the Department of Languages & Cultures (www.mnstate.edu/language/Spanish.cfm). MnTC Goal 8.

***[SPAN 211] Intermediate Spanish Conversation I***

The conversational activities and assignments in this intermediate level class are intended to help students become more proficient in speaking Spanish. Students who intend to pursue a major or minor in Spanish must take SPAN 201 concurrently with this class. Students must demonstrate proficiency by taking the online Spanish Placement Exam on the website of the Department of Languages & Cultures (www.mnstate.edu/language/Spanish.cfm). MnTC Goal 8.

***[SPAN 212] Intermediate Spanish Conversation II***

The conversational activities and assignments in this intermediate level class are intended to help students become more proficient in speaking Spanish. Students who intend to pursue a major or minor in Spanish must take SPAN 202 concurrently with this class. Students must demonstrate proficiency by taking the online Spanish Placement Exam on the website of the Department of Languages & Cultures (www.mnstate.edu/language/Spanish/cfm). MnTC Goal 8.

***[SPAN 290] Topics in Spanish Language Literature, and Culture***

Topics in Spanish language, literature, and culture. May be repeated since content may vary.

***[SPAN 297] Independent Study in Spanish - Intermediate Level***

Selected project as agreed upon by student and instructor. May be repeated for a total of 4 credits. Requires approval by department chair upon presentation of proposal.

***[SPAN 301] Spanish Grammar & Composition I***

Intensive study, practice, and review of Spanish grammar, vocabulary, and writing. Students who intend to pursue a major or minor in Spanish must take SPAN 311 concurrently with this class. Transfer students must demonstrate proficiency by taking the online Spanish Placement Exam on the website of the Department of Languages & Cultures (www.mnstate.edu/language).

***[SPAN 302] Spanish Grammar & Composition II***

Intensive study, practice, and review of Spanish grammar, vocabulary, and writing. Transfer students must take a placement exam before entering this course. Prerequisite: Span 301 or equivalent proficiency. Students may demonstrate proficiency by taking the online Spanish Placement Exam on the website of the Department of Languages & Cultures (www.mnstate.edu/language).

***[SPAN 311] Advanced Spanish Conversation I***

The conversational activities and assignments in this intermediate level class are intended to help students become more proficient in speaking Spanish. Students who intend to pursue a major or minor in Spanish must take SPAN 301 concurrently with this class. Transfer students must demonstrate proficiency by taking the online Spanish Placement Exam on the website of the Department of Languages & Cultures (www.mnstate.edu/language).

***[SPAN 321] Iberian Culture and Civilization***

Coursework helps students develop awareness and understanding of the culture of Spain through the study of historical and geographical facts, art, political life, and general customs of the people. SPAN 302 or equivalent proficiency is a prerequisite. Students may demonstrate proficiency by taking the online Spanish Placement Exam on the website of the Department of Languages and Cultures.

***[SPAN 322] Latin American Culture and Civilization***

Coursework helps students develop awareness and understanding of the cultures of Latin America through the study of historical and geographical facts, art, political life, and general customs of the people of Latin America. SPAN 302 or equivalent proficiency is a prerequisite. Students may demonstrate proficiency by taking the online Spanish Placement Exam on the website of the Department of Languages & Cultures.

***[SPAN 340] Introduction to Spanish Literature***

Students learn the background of the literary genres and the terms used to study and explain them through close reading and analysis. The periods of Iberian and Latin American Literature are presented, giving students a historical context for their studies.

***[SPAN 341] Survey of Iberian Literature***

Analysis and discussion of major works of Iberian literature from one or more of the following periods: 1) origins to 1800; 2) 1800-1936; 3) 1936 to present.

***[SPAN 342] Survey of Latin American Literature***

Analysis and discussion of major works of Latin American Literature from one or both of the following periods: 1) Pre-Columbian to modernism; 2) modernism to the present.

***[SPAN 351] Spanish Phonetics and Phonology***

This course is designed to familiarize students with the articulation, production and perception of sounds in Spanish. The course will touch upon sound change and dialectology. Students will apply the principles learned in this class to the improvement of their pronunciation of Spanish.

***[SPAN 390] Topics in Spanish Language, Literature, and Culture***

Topics in Spanish language, literature, and culture. May be repeated since content may vary.

***[SPAN 397] Independent Study in Spanish***

Selected project as agreed upon by student and instructor. May be repeated for a total of 4 credits. Requires approval of department chair upon presentation of proposal.

***[SPAN 401] Advanced Spanish Grammar and Composition***

Intensive study, practice, and review of Spanish grammar, vocabulary, and composition. Students will develop writing skills through a variety of types of composition assignments designed to help them improve their overall writing proficiency in Spanish. May be repeated for credit.

***[SPAN 443] Genres and Themes of Iberian/Latin American Literature***

Analysis and discussion of genres and/or themes from Iberian and/or Latin American literature.

***[SPAN 444] Periods and Authors of Iberian/Latin American Literature***

Analysis and discussion of major periods and/or authors from Iberian and/or Latin American Literature.

***[SPAN 490] Topics in Spanish Language, Literature or Culture***

In-depth study of a selected topic in Spanish. May be repeated for credit. Applicable toward the Spanish major or minor.

***[SPAN 497] Independent Study in Spanish - Advanced Level***

Selected project as agreed upon by student and instructor. May be repeated for a total of 4 credits. Requires approval of department chair upon presentation of proposal.

## Special Education

***[SPED 225] Individuals with Exceptionalities***

This course traces the path of disability laws beginning with the Civil Rights movement and preceding court cases and provides an introduction to the recognition, incidence, educational, and lifelong needs of individuals with exceptionalities. Personal and societal views regarding cultural and linguistic diversity will be explored. A wide range of educational services are studied with emphasis on the shared responsibility of all professionals in education, community, and professional settings, and introduces students to the wide-range of professionals involved with exceptional individuals.

***[SPED 402] Characteristics of Students with Mild Disabilities***

A study of definitions, identification, assessment, characteristics, educational strategies, and program models for children and youth with high-incidence, mild disabilities. The course will specifically focus on the high-incidence disabilities of Learning Disabilities, Emotional/Behavioral Disorders, High Functioning Autism, Mild Developmental/Cognitive Disabilities, and other mild disabilities such as Other Health Impairments and ADHD.

***[SPED 403] Methods: Mild Disabilities***

Course addresses teaching theories, strategies and techniques for teaching students with mild disabilities including Specific Learning Disabilities, Emotional/Behavioral Disorders, High Functioning Autism, Mild Developmental/Cognitive Disabilities and other related mild disabilities such as Traumatic Brain Injury and Other Health Impairments (ex: ADHD). Course covers teaching methods across specific content areas as well as assistive technology and other teaching practices(ex: co-teaching).

***[SPED 404] Best Practices in Teaching I***

This course represents the first in a sequence of two courses designed to deepen students' understanding of current educational best practices. Emphasis will be placed on systems utilized for prereferral and referral, including the use of data; common differentiated instruction practices such as Universal Design for Learning and

positive behavior supports; and the development of collaboration and communication skills. Students will be expected to apply grade level content standards to classroom and individualized plans for instruction.

***[SPED 410] Methods and Strategies of Special Education Assessment***

This course will cover basic concepts of assessment and the assessment process and procedures that are utilized in data-based decision making and program planning for students with disabilities in an academic or functional curriculum. This course will provide students with the knowledge and skills necessary to select, ethically administrate, score, interpret, and report results from various standardized and non-standardized assessment tools used in the field of special education as well as to utilize data for progress monitoring and educational decision making. This course will also review the legal and cultural contexts of assessment in special education.

***[SPED 410L] Special Education Lab***

Supervised practicum experience in middle school or high school special education setting. To prepare students to work at this level this lab will focus on teaching strategies and program analysis as well as strongly focus on assessment strategies. SPED 410 is to be taken concurrently. Prerequisite and concurrent course substitutions require instructor consent.

***[SPED 413] Teaching in Inclusive Environments***

This course focuses on current best practices in teaching students with identified needs in inclusive environments. The course places emphasis on the use of technology, assistive technology, instructional strategies, lesson planning, and assessment to facilitate success of all students in inclusive settings. Students will develop and expand their knowledge of instructional strategies and lesson planning connected to state and/or Common Core standards.

***[SPED 414] IEP Policies and Methods***

This course will address key issues regarding the collaborative development of the Individual Education Plan (IEP). The IEP is the cornerstone of services for students identified as having a specific disability in need of special education services. Students will learn best practices for collaborative IEP development and creation. The development of a clearly written document including all parts of the IEP will be drafted and finalized into accurate, sound documents.

***[SPED 419] Biomedical Aspects***

This course is designed to help you understand medical aspects and terminology, human anatomy and physiology, pharmacology, kinesiology, neurology, secondary health care issues, accompany specific physical and health disabilities, specific condition needs, managing personal physical care, first aid techniques, and evacuation procedures. Prerequisite substitutions require instructor consent.

***[SPED 430] Foundation of Reading and Writing Methods***

In this first of two literacy intervention courses, candidates will learn pedagogy that supports the development of reading and writing. By knowing and understanding the foundation of literacy & literacy instruction, candidates will begin to explore instructional practices, focusing on developing a holistic framework for teaching.

***[SPED 431] Survey of Autism Spectrum Disorders***

This course is designed to immerse the learner in text, research, and data describing the characteristics and defining qualities of Autism Spectrum Disorder. The significance of early identification and intervention across the five primary autism spectrum disorders will be analyzed. Best practices for intervention including collaboration, communication, and observation strategies will be introduced.

***[SPED 445] Methods of Reading Intervention***

Second in a series of two methods courses where candidates will learn and apply knowledge and

pedagogy that support the development of reading and writing in children with disabilities. By knowing and understanding the premise of literacy development and intervention, candidates will explore effective instructional, assessment, and intervention practices.

***[SPED 452E] Senior Level Field Experience***

Supervised field experience for Elementary Inclusive Education students. This experience takes place the semester just before student teaching. Students will demonstrate proficiency in knowledge, skills and dispositions needed to successfully student teach the following semester.

***[SPED 455] Characteristics of Students with Learning and Behavior Problems***

A study of definitions, identification, assessment, characteristics, educational strategies, and program models for children and youth with learning disabilities and/or emotional/behavior disorders.

***[SPED 467A] Secondary Practicum: Mild Disabilities***

Directed practicum experience in secondary level special education resource room setting.

***[SPED 467D] Secondary Practicum: Developmental Disabilities***

Directed practicum experience in secondary level special education resource room setting. Students will spend approximately 15 hours per week in schools.

***[SPED 468M] ABS Competency Based Field Experience***

Directed student teaching at the elementary, middle or high school level. Students will spend five to eight weeks, full time in an appropriate setting that addresses the needs of students relevant to the Academic Behavior Strategist License.

***[SPED 470] Secondary Services & Transitional Planning***

Transitional planning for secondary students with disabilities including transitional assessment, programming and planning based on individual cognitive, affective and behavioral characteristics will be covered in depth in this course. Students will also acquire knowledge of post-secondary service options and funding sources.

***[SPED 471] Behavior and Environment Management***

Application of learning theory and applied behavior analysis to teaching and to the problem of altering maladaptive behavior. Specific variables related to classroom and community based instruction of individuals with a variety of learning characteristics are included. Prerequisite substitutions require instructor consent.

***[SPED 475] Informal Assessment/Teaching Strategies: Students with Learning Disabilities***

Informal assessment techniques and teaching strategies across the core content areas and in social skills for elementary and secondary students with specific learning disabilities. Prerequisite substitutions require instructor consent.

***[SPED 480] Legal/Social Foundations of Special Education***

This course overviews the educational, sociological, legal, and historical frameworks of special education services within the context of public school systems. It includes research on the efficacy of special education; national and state reform and renewal efforts in general and environment professional preparation, litigation and legislation, and best practices in curriculum for all learners. Issues related to families in a changing educational system are also addressed. Prerequisite substitutions require instructor consent.

## Speech/Language/Hearing Sciences

***[SLHS 101] Survey of Speech-Language-Hearing Disorders***

The study of the basic anatomy and physiology of speech and hearing including basic acoustics.

Overview of the processes of speech, language and hearing, the normal development of speech and language in children, and the major speech, language and hearing disorders. The role of speech-language pathologists and audiologists will be discussed.

***[SLHS 150] Observation of the Practice in Speech Language and Hearing Sciences***

Observation of the Practice in SLHS provides the opportunity for observation hours as required by the American Speech and Hearing Association. The SLHS 150 course supports guided observation to increase the understanding of what may be observed in the practice of Speech Language and Hearing Sciences, why it is relevant and how

***[SLHS 201] Linguistic Phonetics***

The science and theory behind the production and perception of the sounds of the English language; Introduction to Clinical and Linguistic Phonetics; the use of the International Phonetic Alphabet (IPA) including vowel and consonant symbols, diacritical markings, and stress/intonation; application of phonemic analysis and an introduction to phonology and phonological principles including discrimination of normal and disordered sound productions; Introduction to anatomy and physiology of sound production.

***[SLHS 202] Anatomy and Physiology of Normal Speech and Hearing***

The study of the anatomy and basic physiology of the speech and hearing mechanisms, and the major underlying scientific concepts.

***[SLHS 204] Language Development***

Nature and normal development of cognitive, linguistic and social systems of language in children.

***[SLHS 290] Topics in Speech/Language/Hearing Sciences***

Exploration of a specific Speech Language Hearing Science topic. This course may be repeated as topic varies.

***[SLHS 301] American Sign Language and Deaf Culture I***

An introduction to the Deaf culture and American Sign Language, including issues of nonverbal communication through pantomime and body movement. MnTC Goal 8.

***[SLHS 320] Hearing/Vestibular Disorders & Assessment***

The study of auditory/vestibular anatomy and physiology as well as the disorders of the auditory and vestibular system. Clinical measurement of the auditory and vestibular mechanisms. In-class and assignment experience administering protocols for testing and screening the auditory pathway.

***[SLHS 321] Speech Sound Disorders in Children***

The nature, etiology, assessment and treatment of disorders of articulation and phonology.

***[SLHS 322] Language Disorders in Children***

The nature, etiology, assessment, and treatment of language disorders in children.

***[SLHS 343] Clinical Procedures***

Basic defining and recording of communication behavior; development of reporting skills to include lesson plans, report writing, and conferring and consulting with clients and other professionals. During this course, students will learn the components of evaluation and progress report writing for a variety of communication disorders. In addition, given a set of specific information, students will learn to develop treatment plans and lesson plans based on logical interpretation of data. Writing Intensive Course.

***[SLHS 402] Neuroanatomy/Physiology of Communication and Swallowing***

The study of the Central, Peripheral, and Autonomic Nervous Systems. Neuroanatomy and Physiology of Swallowing, Speech, Language, Hearing, Somatosensory System, and the Primary Sensory and Motor Cortices. Introduction to Dysphagia, Aphasia, Dysarthria, Apraxia, Traumatic

Brain Injury and the Neuroanatomy affected by these conditions as they relate to the work of the Speech-Language Pathologist, Speech Scientist, and Audiologist.

***[SLHS 421] Speech and Voice Science***

The study of speech acoustics and physiology, incorporating both voice and articulatory aspects of speech signal production, as well as the instrumentation needed for measurement of speech acoustic signals.

***[SLHS 424] Childhood Stuttering and Related Disorders***

A study of the theories of disfluency, fluency development and stuttering in children. Assessment, prevention and treatment of childhood stuttering and cluttering is included. Special consideration will be given to children with Downs syndrome and Attention Deficit and Hyperactivity Disorder (ADHD).

***[SLHS 427] Augmentative and Alternative Communication and Literacy Acquisition***

The nature of augmentative and alternative communication (AAC) systems and other assistive technologies for persons with special needs across the life span. Includes components of AAC systems, and basic assessment and intervention procedures. Additionally, includes an overview of typical literacy acquisition.

***[SLHS 446] Clinical Experience***

Supervised clinical experience in speech/language pathology or audiology with children or adults. May be repeated.

***[SLHS 448] Professional Issues and Clinical Practice Management***

The course will include a survey of professional issues facing today's professional including such topics as credentialing, ethics and legal considerations. Service delivery in schools, health care and private practice will also be addressed.

***[SLHS 473] Rehabilitation Audiology***

A survey of the principles of audiological and vestibular intervention for children through adults. Special emphasis on amplification technology.

***[SLHS 482] Medical Speech-Language Pathology***

An introduction to the speech-language pathologist's role in medical-based services. Topics of focus include service areas, descriptions of medical teams, discussing the diagnosis, and management for specialized populations, education/counseling for staff, patients, and families, documentation options, insurance/billing considerations and other topics of concern to the hospital-based clinician.

***[SLHS 490] Topics in Speech/Language/Hearing Sciences***

An examination of the literature on a selected topic of current interest.

***[SLHS 491] Research Applications in SLHS***

The study and application of research principles and methods in speech-language and hearing sciences. Students may, with departmental permission, substitute another statistics course for the listed prerequisite.

***[SLHS 497] Independent Study***

Selected readings or a guided independent research project in some aspect of communication disorders. May be repeated for up to 6 credits.

## Sustainability

***[SUST 200] Nature of Sustainability***

This course explores the concept of sustainability within the context of socio-environmental systems and examines topics of study from an individual perspective. Individual connections to sustainability issues within business, politics, and the social and natural sciences will be introduced. The trade-offs (environmental, social, and economic) associated with generating and using various resources will be examined, including a recognition that all individuals do not have the same ecological footprint. Evaluating these trade-

offs requires a level of competency in information literacy, including identifying credible sources, and the development and application of logic and argumentation skills. Finally, we will explore what actions are possible to work towards a sustainable future. MnTC Goal 2.

***[SUST 290] Topics in Sustainability***

Consideration of special problems or the study of sustainability topics at an introductory level. May be repeated for credit when topic varies.

***[SUST 390] Topics in Sustainability***

Consideration of special problems or the study of sustainability topics at an advanced level. May be repeated for credit when topic varies.

***[SUST 394] Sustainability Research***

Individual research: The project and its format must be accepted by the research advisor prior to registration. Course is repeatable, but only a total of 3 credits may count towards sustainability electives for the major.

***[SUST 421] Systems Thinking***

This course develops your ability to interpret any environmental issue within a systems thinking framework. Using a systems approach we will explore current trends and discuss future scenarios from a local to a global scale. A global perspective is essential to understanding the complexity of the Grand Societal Challenges facing our planet. MnTC Goal 8.

***[SUST 432] Environmental Dilemmas***

This course examines a series of case studies of environmental issues at the local, regional, and global levels that present complex dilemmas for humans to address. Potential solutions are viewed in the context of individual or societal ethical practices and moral obligations to other humans, non-human organisms, physical environments, and future generations. An introduction to moral theories and the examination of a variety of approaches to environmental ethics, such as anthropocentrism, bio/ecocentrism, deep ecology, ecofeminism, social ecology, and Leopold's land ethic will provide the foundation for discussions of the case studies. MnTC Goal 9.

***[SUST 469] Internship***

A supervised work experience generally involving a field in which the student can apply their sustainability knowledge. Work experience may be in the private, non-profit, non-governmental or governmental sector. Course is repeatable, but only a total of 3 credits may count towards the sustainability major. A maximum of 12 internship credits may be applied towards your MSUM degree.

***[SUST 485] Global Health Perspectives***

This course examines global health issues that influence the delivery of holistic care at the local, national, and global level. Emphasis is on recognition of the global, cultural, environmental, and societal factors that influence healthcare at the local level. National and International best practice guidelines will be presented to determine global healthcare delivery. The role of world citizens in advocating for culturally responsive care of diverse and vulnerable populations is examined. Students are challenged to define themselves as world citizens. MnTC Goal 8.

***[SUST 492] Seminar: Sustainability Capstone***

This course serves as a capstone course for sustainability majors during their internship experience to help them prepare for a successful postgraduate career experience.

## Teaching English as a Second Language

***[TESL 451] English Structures***

An overview of English as a linguistic system with comparison to other languages and a survey of the history of English. Includes phonetics, phonology, morphology, syntax, semantics, pragmatics, sociolinguistics, historical linguistics, language acquisition, and the application of these areas of knowledge to the ESL classroom.

***[TESL 454] Grammar for Teaching English as a Second Language***

In-depth study of English grammar with specific focus on syntax, including its application to the ESL classroom.

***[TESL 455] Oral Discourse Structures***

In-depth study of how English is structured in oral contexts as well as methods and strategies for teaching oral language. Covers a review of phonetics and phonology including place and manner of articulation of phonemes, stress, intonation, and how articulation alters when sounds are produced within larger units of discourse. Delves into the structure of oral discourse above the sentence, including such features as adjacency pairs, referencing and gapping, and how participants negotiate meaning. Introduces students to techniques used in oral discourse analysis.

***[TESL 456] Written Discourse Structures***

In-depth study of the writing system of English as well as methods and strategies for teaching reading and writing. Covers the alphabet and its relation to the oral language, the teaching of early literacy, developmental literacy, and advanced writing skills. Delves into the structure of written discourse above the sentence, including such features as logical connectors, focusing structures, transitions, and rhetorical devices.

***[TESL 473] Teaching Math and Science to ELs***

The course will look at state guidelines and designated responsibilities of both ESL teachers and teachers of other subjects in the education of ELs and then present readings, discussions, and assignments that help math and science teachers fulfill their designated responsibilities. Students will learn general difficulties faced by ELs in a core subject classroom and the specific challenges presented in the math and science classrooms as well as ways to help these learners overcome these difficulties.

## Theatre Arts

***[THTR 102] Theatre Activity***

Practical experience in a performance activity in Theatre.

***[THTR 130] Acting for Everyone***

Acting for Everyone is a participation course that introduces the student to the fundamental craft of the stage actor. Students will engage in theatre games, solo, duo, and group acting scenes, and will learn basic theatrical vocabulary. Emphasis is placed on creating truthful, vivid interaction on stage, through developing the skills of listening, responding, concentration and engaging the imagination. MnTC Goal 6.

***[THTR 140] Dance for the Stage I***

A beginning course in dance technique for dance styles in musical theatre, including dance forms of jazz and ballet.

***[THTR 141] Ballet I***

This course will serve as an introduction to ballet dance technique.

***[THTR 142] Tap I***

This course will serve as an introduction to tap dance technique.

***[THTR 190] Topics in Theatre***

This is a lower division topics course and may be repeated when the topic changes.

***[THTR 196] First Year Seminar***

The First Year Seminar course for Theatre Arts majors focuses on requirements in theatre, auditioning, the production season, and a showcase of talents.

***[THTR 202] Practicum***

Practical experience in a performance activity in Theatre. Repeatable for up to 12 credits.

***[THTR 221] Introduction to Dramatic and Theatrical Analysis***

An examination of great plays, dramatic structure and styles, plays in performance, selected theatre history, and playwriting. For theatre majors and minors and by permission of the instructor.

***[THTR 230] Acting I: Principles***

Basic terminology and techniques used by the actor in creating a role for the stage.

***[THTR 231] Auditioning***

Students will prepare for all types of theatrical auditions. The class will cover topics such as: resume preparation, cold reading, headshots, piece selection and the business of theatre.

***[THTR 232] Principles of Make-up for Stage and Film***

Techniques and styles of make-up used in stage and film productions. Same as FILM 232.

***[THTR 234] Theatrical Design Principles***

Theatrical Design Principles focuses on basic principles and elements of design within the theatre. Students will develop skills needed to communicate their ideas through design.

***[THTR 235] Directing I: Principles***

The foundation course in stage direction, a core requirement for all majors. The theory and practice of directing: casting, blocking, composition, picturization, movement, rehearsal and performance.

***[THTR 240] Dance for the Stage II***

A continuation of skills amassed in "Dance for the Stage I." A special unit of tap is included.

***[THTR 255] Stagecraft***

The theory and practice of working with stage equipment; the methods and procedures of scenery construction, stage rigging, and scene shifting.

***[THTR 290] Topics in Theatre***

This is a lower division topical course and may be repeated when the topic changes.

***[THTR 302] Practicum***

Practical experience in a performance activity in Theatre. Repeatable for up to 12 credits.

***[THTR 322] Survey of Western Theatre History and Drama***

Theatre and drama from Classical Greece through contemporary times. Topics include a selection of great plays, significant playwrights, theatre buildings, staging and technical innovations, Aristotelian criticism, theatre buildings, staging and technical innovations, and artistic and cultural movements.

***[THTR 324] Musical Theatre History***

Musical Theatre productions past and present are examined and critically evaluated. An analysis of the various forms of musicals with an emphasis on the libretto, lyrics, and production elements. Same as Music 324.

***[THTR 325] African American Theatre***

Survey of selected plays by African American writers from the 19th and 20th centuries. Focus on aesthetic and interpretive dimensions grounded in African American historical and cultural contexts. AMCS 210 or AMCS 211 are highly recommended as prerequisites.

***[THTR 331] Acting II: Scene Study***

As a follow-up to Principles of Acting, students in Scene Study will rehearse and perform scenes from the dramatic canon of great plays. The scene work will be performed as an actors' lab with regular feedback from the instructor and fellow classmates.

***[THTR 332] Advanced Make-up***

The study of special makeup effects for stage and screen, including making and applying prosthetics.

***[THTR 333] Movement for the Actor***

A physical approach to acting will be explored through Alexander, Laban, stage combat, and other movement methodologies.

***[THTR 334] Voice for the Actor***

Voice for the actor focuses on vocal techniques. The course explores voice production: breathing, projection, articulation, diction, IPA, and dialects.

***[THTR 340] Principles of Choreography***

Adaptation of choreographic assignments, in-class critiques, and analyses permit students to evolve a personal, original style and process associated with the role of choreographer.

***[THTR 341] Ballet II***

This course will serve as advanced study in ballet dance technique.

***[THTR 342] Tap II***

This course will serve as advanced study in tap dance technique.

***[THTR 350] Costume Studio***

Costume Studio explores theatrical costume design and construction. THTR 234 Theatrical Design Principles is recommended as a prerequisite.

***[THTR 356] Lighting Studio***

Acquiring artistic and technical skills needed for designing lighting for the theatre; practical experience in design presentation. THTR 255 Stagecraft is recommended as a prerequisite.

***[THTR 360] Dramatic Production I***

Play production techniques (acting and directing, technical theatre) through the process of staging weekly productions for summer theatre audiences. May be repeated by undergraduates. Offered summer only.

***[THTR 390] Topics in Theatre***

This is an upper division topical course and may be repeated when the topic changes.

***[THTR 397] Independent Study***

Independent reading or research allowing an individual student to explore a specific topic under faculty supervision.

***[THTR 402] Practicum***

Practical experience in a performance activity in Theatre. This course may be repeated for a max of 12 credits, only 3 credits may be applied to the major.

***[THTR 420] The Theatrical World***

This course will explore the theatre from Europe and Asia, with special emphasis on the theatre of Classical Greece, India, China, Japan, and American Musical Theatre. Students will read plays, materials about theatre, see videos of theatre productions, and make group presentations. MnTC Goal 6 and 8.

***[THTR 425] Contemporary Playwrights***

Significant playwrights and their works from the last 25 years. May be elected twice when the reading lists are substantially different.

***[THTR 430] Acting Styles***

Principles and problems in the acting of major historical and theatrical styles (for example, Classical, Renaissance, and Modern). May be repeated for credit when the style focus is substantially different.

***[THTR 431] Design and Technology Styles***

Principles and problems in design and technology styles (for example, tailoring, scenic painting, rendering techniques). May be repeated for credit when the style focus is substantially different.

***[THTR 434] Special Projects in Theatre Arts***

Opportunity for the advanced student to do individual creative or investigative work in a particular phase of theatre. May be taken more

than once if content is substantially different. Offered on demand.

***[THTR 436] Directing III: Advanced***

Advanced study of techniques of direction through the use of movement, picturization, tempo and script analysis.

***[THTR 440] Dance Production***

The course explores theory and practice in the productions aspects of dance. Students in the class will be required to rehearse and perform dances choreographed by faculty or visiting guest artists, and perform in the annual spring dance concert. This course must be repeated for a total of 4 credits for the Minor in Theatre Dance.

***[THTR 450] Scenic Studio***

Explore different types of stage settings: different styles, designing for different types of theatre spaces, and different approaches to the genres of dramatic literature. Offered on demand.

***[THTR 460] Dramatic Production II***

Play production techniques (acting and directing, technical theatre) through the process of staging weekly productions for summer theatre audience. May be repeated by undergraduates. Offered summer only.

***[THTR 469] Internship***

A supervised practical experience in theatre. A maximum of 12 internship credits may be applied to the degree.

***[THTR 490] Topics in Theatre***

This is an upper division topical course and may be repeated when the topic changes.

***[THTR 492] Professional Seminar***

Capstone course for Theatre Arts majors; proposal, completion, and presentation of projects; pre-professional skills; written exam integrating and applying knowledge from separate courses. Grade of "C-" or higher is required for graduation.

***[THTR 497] Independent Study***

Independent reading or research allowing an individual student to explore a specific topic under faculty supervision.

## University Studies

***[UNIV 111] College Learning Strategies***

The purpose of this course is to provide students with an opportunity to learn and to adopt methods of studying and thinking which facilitate academic success in higher education.

***[UNIV 121] Foundations of University Success***

This course is designed to help students develop the critical thinking skills needed for both academic and personal success. Through discovery and self-assessment, students will apply the methods of motivation, goal-setting, study skills, learning styles, problem solving and time management to achieve their college goals. MnTC Goal 2.

***[UNIV 340] Learning Assistant Program Seminar***

This seminar is designed for students who are either currently serving as a Learning Assistant (LA) or are planning on applying to become an LA in the future. Seminar topics provide pedagogical help for LAs to enable them to support and facilitate active learning by the students in their assignments.

***[UNIV 389] Learning Assistant Program Seminar***

This seminar is designed for students who are either currently serving as a Learning Assistant (LA) or are planning on applying to become an LA in the future. Seminar topics provide pedagogical help for LAs to enable them to support and facilitate active learning by the students in their assignments.

## Women's Studies

***[WS 100] Women Today: Contemporary Women's Issues***

This course will examine current issues affecting women in American Society. It also addresses pertinent topics related to gender, diversity and systems of inequality. Topics include women and

work, family, law and social policy, gender and mass media, violence against women, sexuality and the body, and women's health. Core class for Women's Studies Minor program. MnTC Goal 6 and 7.

***[WS 219] Sociology of Sexual Behavior***

Examines sociological and social psychological perspectives and research on sexual behavior. Topics include childhood sexual behavior, adolescent sexual behavior, sex and mate selection, marital sex, extramarital sex, and various forms of sexual variation. Same as SOC 219.

***[WS 246] Women in Literature***

A study of the various ways women are depicted in imaginative literature and expository prose. Readings vary. Same as ENGL 246. MnTC Goal 6.

***[WS 247] Women's Studies: Perspectives and Intersections***

An introduction to the discipline of Women's Studies. Examines multidisciplinary and interdisciplinary issues in Women's Studies in relation to the sciences, social sciences, humanities and arts. Also investigates disciplinary topics such as women's movements, difference, oppression, race and class. Includes a service learning component. Core class for Women's Studies minor program. MnTC Goal 6 and 7.

***[WS 300] Biology of Women***

A study of the gender-related aspects of the biology and behavior of women, including a critical examination of research in this field. Appropriate as an elective only for Biology majors who choose the Health and Medical Science emphasis or the Life Science Emphasis. Lab included. Same as BIOL 300. MnTC Goal 3.

***[WS 305] The Economics of Poverty, Discrimination, and Inequality***

An examination of poverty, discrimination, and income inequality among diverse populations in the United States. Topics include causes of poverty, economics of discrimination in terms of majority and minority groups, and historical perspective of ethnic minorities. Same as ECON 305. MnTC Goal 7.

***[WS 308] Social Gerontology***

This course introduces students to the field of social gerontology for providing an overview of the significant sociological perspectives, social issues, and empirical social science research pertaining to the phenomenon of aging in society. The main goal of the course is to foster an understanding of aging as a process that is characteristic of both individuals and societies through a focus on social factors that shape the individual's experience of aging and the consequences of an aging population for social institutions. Same as SOC 308.

***[WS 310] Dominant-Subordinate Group Relations***

Theoretical, historical and contemporary examination of prejudice, discrimination, and inequalities organized around race, ethnicity, and gender divisions. Same as SOC 310. MnTC Goal 5

***[WS 312] Rhetorics of Resistance: Feminist Responses from the Humanities***

An examination of feminist responses from the humanities including literature, history, visual and performing arts as well as creative work from the traditional world of women. The course incorporates responses from various multicultural perspectives. MnTC Goal 6 and 7.

***[WS 324] Feminist Theory***

This course is an examination of feminist theories that analyze women's experiences and women's oppression. Throughout the course we will explore how knowledge, power, gender, and difference are interwoven and how feminist approaches seek to disrupt and reshape systems of inequality on multiple levels. Specific attention will focus on theorizing the intersections of gender-based oppression with racism, classism, and other forms of oppression. MnTC Goal 6 and 7.

***[WS 330] Gender, Justice and the Environment***

The course focuses on understanding and identifying solutions to local and global

environmental issues in the context of feminist critique. The course will draw from feminist literature, core ecological principles, activist strategies, and other critical writings. MnTC Goal 6 and 10.

***[WS 333] Sociology of Gender***

Focuses on the social construction of gender and consequences of gender stratification for women and men. Topics may include: gender differences; the concept of "gender role"; gender in the economic, political, and educational institutions; discrimination; and the feminist movement. Same as SOC 333.

***[WS 345] Women in Musical Culture***

A history of women in musical culture and critical examination of representations of women in music. Topics examine women's roles in American and European musical cultures, including artistic traditions, popular musics, jazz and folk traditions. Representations of women in musical forms, such as opera, rock music and multimedia, are also considered. MnTC Goals 6 and 7.

***[WS 346] Sex, Sexuality and Music***

This course considers representations and expressions of sex and sexuality in music throughout history in artistic and popular music traditions in Western society. Various musical forms will be considered in sociohistorical context. Musical works will be examined and interpreted for their expression of ideas about sexuality, representations of sexuality, and the ways in which they enhance or challenge social norms or stereotypes about sexuality. Music as a means of expressing sexuality will also be considered. MnTC Goals 6 and 7.

***[WS 350] Women in European History***

The historical experience of European women as a force in politics, in economic and familial roles, in organized religion and in cultural life, and with special emphasis on the "woman question". Same as HIST 350.

***[WS 390] Topics in Women's Studies***

This is an upper division topical course and may be repeated when the topic changes.

***[WS 394] Research in Women's Studies***

Directed research course in Women's Studies. Topics covered include research techniques, methodologies and academic writing in Women's Studies. May be repeated once for credit.

***[WS 397] Independent Study***

Directed readings and discussion on particular topics agreed upon by instructor and student.

***[WS 406] DNA as Destiny: Genetics and Society***

This course examines the various ethical, legal and social implications (ELSI) of genetic research and the applications of current and future applications of new genetic technologies. It is designed to provide students in any major, with the necessary background to make informed decisions about these issues in a socially and civically responsible manner. MnTC Goal 9.

***[WS 408] Women and Art***

This course examines the history of women artists as well as the representation of women as subjects in art. The course also provides a historical introduction to feminist art history and methodology. Same as ART 408.

***[WS 412] Seminar in Women's Studies***

Study of selected problems in Women's Studies through various disciplines including those from the humanities, arts, social sciences and natural sciences. The course employs the objectives of interdisciplinary studies as applied to selected topics. Specific topics will be announced in the class schedule. Students may repeat the course two times when topic varies. Core class for Women's Studies Minor program.

***[WS 415] Media and Diverse Identities***

This course focuses on the analysis of media representations of diverse identities with an emphasis on the interconnections of race, gender and class. Students will use feminist theory and

ethics, afrocentric criticism, queer theory and masculinity studies to critically analyze representations of diverse identities in print, television, advertising, film and the internet. Students will develop their own media, in the form of digital storytelling, to speak back to dominant narratives analyzed in the course. MnTC Goal 9.

***[WS 420] Feminism in Global Perspective***

A topical survey of women's issues in various regions of the world with a focus on manifestations of feminism in different cultural contexts. Topics include women's rights as human rights, sex tourism and trafficking, genital mutilation, religious systems and women, and reproductive rights. Core class for Women's Studies Minor program. MnTC Goal 5 and 8.

***[WS 469] Internship***

A supervised practical experience in Women's Studies. Students must be Women's Studies majors with at least junior standing. A maximum of 12 internship credits may be applied to the degree.

***[WS 470] Undergraduate Teaching Assistant***

Students will serve as a teaching assistant for select Women's Studies courses under the guidance of a faculty mentor. May be repeated up to three times for credit.