



# University of Minnesota Duluth

## 2016-17 UNDERGRADUATE CATALOG

This file serves as an official record of University, college, and program requirements and policies during a specific time period. It includes a directory of undergraduate programs, majors, and course descriptions. It also includes a list of University policies.

**NOTE:** The information in this catalog is subject to change without notice. Colleges and departments make changes in their degree requirements and course descriptions frequently. For the most current information, check with department offices, advisers, and visit the Online Catalog at [www.catalogs.umn.edu](http://www.catalogs.umn.edu).

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## Duluth Campus

# African and African American Studies Minor

*Sociology/Anthropology*

## College of Liberal Arts

- Program Type: Undergraduate free-standing minor
- Requirements for this program are current for Fall 2016
- Required credits in this minor: 18 to 20

The African American and African studies minor is an interdisciplinary program designed to promote a vigorous understanding of the worldwide historical and current experience of African Americans and people of African descent. Through its pedagogical offerings, research activities, advocacy, and community and civic engagements, the program aims to promote awareness and the advancement of the cultures and institutions of African American and African cultural communities at the local, state, national, and international levels. The courses are structured to provide a vast array of interdisciplinary, intellectual, and academic approaches to research, interpretation, and the dissemination of the multifaceted experiences and realities of the total Black global experience. The program leads initiatives to develop a seamless and tightly woven cross-disciplinary pedagogical and scholastic structure focusing on the study of African American, African, and Caribbean community life and development in the United States and the world at-large. The program, through courses, advising, seminars, lectures, and presentations, supports the academic and intellectual growth of students in an ever increasing multicultural and diverse world.

## Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

## Minor Requirements

### Required Courses (6 cr)

- AAAS 1103 - Introduction to Africa [GLOBAL PER] (3.0 cr)
- AAAS 1104 - Introduction to Black America [CDIVERSITY] (3.0 cr)

### AAAS Elective (3 cr)

- AAAS 1101 - Introduction to Black Caribbean Studies [LE CAT6, LEIP CAT06] (3.0 cr)
- or AAAS 1102 - Introduction to Atlantic Slave Trade [LE CAT7, LECD CAT07, CDIVERSITY] (3.0 cr)

### Other Electives (9-11 cr)

Take 9 - 11 credit(s) from the following:

- AAAS 3091 - Independent Study (1.0 - 3.0 cr)
- AAAS 3095 - Special Topics: (Various Titles to be Assigned) (3.0 cr)
- AAAS 3201 - The African American Family (3.0 cr)
- AAAS 3202 - African Story-Telling and Folklore (3.0 cr)
- AAAS 3203 - Rap & Hip Hop Music Cultures: A Sociological Perspective (3.0 cr)
- AAAS 3305 - African American Cinema (3.0 cr)
- AAAS 3306 - Cities in Africa (3.0 cr)
- CRIM 4340 - Race, Crime and Justice (3.0 cr)
- ENGL 1583 - Introductory Study of Major Topics in Contemporary African Literature [LE CAT9, LEIP CAT09, HUMANITIES, GLOBAL PER] (4.0 cr)
- ENGL 3573 - Survey of African American Literature [HUMANITIES, CDIVERSITY] (4.0 cr)
- ENGL 3574 - Reconstituting the Past in African Diaspora Literature (4.0 cr)
- FORS 3000 - AAAS 3000 Kenyan Experience (6.0 cr)
- HIST 2515 - Precolonial Africa [LE CAT7, LECD CAT07, HUMANITIES] (4.0 cr)
- HIST 3318 - Slavery, Lincoln and the Civil War (4.0 cr)
- HIST 3615 - Modern Africa (4.0 cr)
- HIST 3616 - Society and Culture in 20th-Century Africa (4.0 cr)
- MU 1005 - Jazz Studies [LE CAT9, LECD CAT09, FINE ARTS, CDIVERSITY] (3.0 cr)
- MU 2001 - Ethnic and Folk Music of the World [LE CAT9, LEIP CAT09, FINE ARTS] (3.0 cr)
- MU 2005 - African Roots of American Music [LE CAT9, LECD CAT09, FINE ARTS] (3.0 cr)
- PHIL 3025 - Philosophy of Race and Racism (4.0 cr)
- POL 3525 - African Politics (3.0 cr)
- SOC 3330 - The American Civil Rights Movement [SOC SCI, CDIVERSITY] (3.0 cr)
- SOC 4949 - Race and Ethnic Relations (3.0 cr)



- SOC 4981 - Social Movements, Protest and Change (4.0 cr)
- WS 2101 - Women, Race, and Class [LE CAT8, LECD CAT08, SOC SCI, CDIVERSITY] (3.0 cr)
- WS 3750 - Voices of African Women [GLOBAL PER] (3.0 cr)

## Duluth Campus

# American Indian Studies B.A.

*American Indian Studies*

## College of Liberal Arts

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 120
- Required credits within the major: 40
- Degree: Bachelor of Arts

American Indian Studies (AIS) is an interdisciplinary academic department offering coursework committed to broadening knowledge of the worldview, histories, languages, literatures, cultures, arts, and contemporary experiences of American Indian nations and peoples. As American Indian nations maintain a distinct political relationship with the federal government rooted in historical treaties, congressional laws, and executive orders, AIS promotes an awareness for and understanding of tribal sovereignty and self-determination. AIS strives to protect the integrity and identity of the indigenous population of North America and to create an intellectual learning environment conducive to critical and creative thought.

A degree in American Indian studies is designed to give students a broad background while allowing concentrated study in an area(s) of interest. The core of the program includes study in Ojibwe language, historical and contemporary foundations, politics and law, art and literature, and societies and cultures. Majors and minors develop skills in analytical and critical thinking, as well as verbal and written communication. They acquire knowledge of historical and contemporary American Indian experiences, cultures, and (inter)governmental affairs. Additionally, students may focus their area of study in Ojibwe language.

Graduates are prepared for careers in a variety of professional fields, including social services, for-profit and not-for-profit organizations, tribal, local, state or federal government, criminal and social justice fields, tribal economic development, as well as business and management. In addition, some graduates pursue advanced degrees in law, health, business, social work, education, museum studies, and fine arts.

Honors Requirements: Students must have a 3.75 GPA in the major.

## Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

## Admission Requirements

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

### Required prerequisites

#### Introductory Requirement (1 cr)

Transfer students with 24 or more credits and current UMD students who change colleges to CLA are exempt from this requirement. New first-year students with 24 or more PSEO credits may request to be waived from this requirement.

[UST 1000](#) - UMD Seminar (1.0 - 2.0 cr)

## General Requirements

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.

7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

## Program Requirements

A second field of study (either a minor or another major) is required.

### Core (12 cr)

- [AMIN 1001](#) - Introduction to American Indian Studies [CDIVERSITY] (3.0 cr)
  - [AMIN 1010](#) - American Indian Experience to 1900 [LE CAT7, LECD CAT07, CDIVERSITY] (3.0 cr)
  - [AMIN 1020](#) - American Indian Experiences: 1900-present [LE CAT7, LECD CAT07, HUMANITIES, CDIVERSITY] (3.0 cr)
- Take 3 or more credit(s) from the following:
- [AMIN 3997](#) - Internship in American Indian Studies (4.0 - 8.0 cr)
  - [AMIN 4191](#) - Senior Study of Ojibwe Language (1.0 - 6.0 cr)
  - [AMIN 4990](#) - Directed Research (1.0 - 6.0 cr)

### Subject Area Electives (24 cr)

One course from four of the five subject areas is required, a minimum of nine AMIN credits must be at the 3xxx-4xxx level and one course from the optional elective area may apply to the 24 credit total. AMIN 3997, 4191, and 4990 do not count toward this requirement.

Take 24 or more credit(s) from the following:

#### Language

- AMIN 11xx, 21xx, 31xx, 41xx courses apply here.
- [AMIN 1103](#) - Beginning Ojibwe I [LE CAT3, LECD CAT03, COMM & LAN] (3.0 cr)
  - or [AMIN 1104](#) - Beginning Ojibwe II [LE CAT3, LECD CAT03, COMM & LAN] (3.0 cr)
  - or [AMIN 2103](#) - Intermediate Ojibwe I [LE CAT3, LECD CAT03, COMM & LAN] (3.0 cr)
  - or [AMIN 2104](#) - Intermediate Ojibwe II [LE CAT3, LECD CAT03, COMM & LAN] (3.0 cr)

#### •Politics and Law

- AMIN 12xx, 22xx, 32xx, 42xx courses apply here.
- [AMIN 2210](#) - American Indian Politics: Law, Sovereignty, and Treaty Rights [LE CAT6, SOC SCI, CDIVERSITY] (3.0 cr)
  - or [AMIN 3206](#) - Federal Indian Policy [LE CAT8, LECD CAT08, SOC SCI, CDIVERSITY] (3.0 cr)
  - or [AMIN 3230](#) - American Indian Tribal Government and Law [SOC SCI, CDIVERSITY] (3.0 cr)
  - or [AMIN 4230](#) - Introduction to Federal Indian Law [SOC SCI, CDIVERSITY] (3.0 cr)
  - or [AMIN 4240](#) - American Indian Education Policy Development in the 20th Century [CDIVERSITY] (3.0 cr)
  - or [AMIN 4250](#) - American Indian Diplomacy: Treaties, Compacts, and Agreements [GLOBAL PER] (3.0 cr)

#### •Art and Literature

- AMIN 16xx, 26xx, 36xx, 46xx courses apply here.
- [AMIN 1606](#) - Introduction to American Indian Literature [LE CAT9, HUMANITIES, CDIVERSITY] (3.0 cr)
  - or [AMIN 2605](#) - Survey of American Indian Arts [LE CAT9, FINE ARTS, CDIVERSITY] (3.0 cr)
  - or [AMIN 3620](#) - Ojibwe Literatures: Sovereignty and Survival [CDIVERSITY] (3.0 cr)
  - or [AMIN 3660](#) - American Indian Novel [HUMANITIES, CDIVERSITY] (3.0 cr)
  - or [AMIN 4630](#) - American Indians and the Media [HUMANITIES, CDIVERSITY] (3.0 cr)
  - or [AMIN 4640](#) - American Indians in the Movies [HUMANITIES, CDIVERSITY] (3.0 cr)

#### •Societies and Cultures

- AMIN 14xx, 24xx, 34xx, 44xx courses apply here.
- [AMIN 2015](#) - Ojibwe History and Culture [SUSTAIN] (3.0 cr)
  - or [AMIN 2405](#) - American Indian Families and Society [LE CAT8, SOC SCI, CDIVERSITY] (3.0 cr)
  - or [AMIN 2407](#) - Boarding Schools and Beyond: A History of American Indian Education [LE CAT8, LECD CAT08, CDIVERSITY] (3.0 cr)
  - or [AMIN 3410](#) - Fur Trade in Canada and the United States [CDIVERSITY] (3.0 cr)
  - or [AMIN 3420](#) - American Indians in Sports [LE CAT7, LECD CAT07, CDIVERSITY] (3.0 cr)
  - or [AMIN 3430](#) - Global Indigenous Studies [GLOBAL PER] (3.0 cr)
  - or [AMIN 3450](#) - American Indian Women [CDIVERSITY] (3.0 cr)

#### •Tribal Administration

- AMIN 18xx, 28xx, 38xx, 48xx courses apply here.
- [AMIN 2801](#) - Introduction to Tribal Administration and Governance (3.0 cr)
  - or [AMIN 2820](#) - Foundations of Indigenous Leadership (3.0 cr)
  - or [AMIN 3810](#) - Fundamentals of Tribal Strategic Management (3.0 cr)
  - or [AMIN 3820](#) - Fundamentals of Tribal Project Management (3.0 cr)
  - or [AMIN 4810](#) - Best Practices in Tribal Administration (3.0 cr)
  - or [AMIN 4840](#) - Current Issues and Opportunities in Tribal Administration and Governance (3.0 cr)



**Optional Elective (0-3 cr)**

To reach the 24 credit minimum elective requirement students can apply one course from the following list.

- [ANTH 1604](#) - Cultural Anthropology [LE CAT6, LEIP CAT06, SOC SCI, GLOBAL PER] (4.0 cr)
- or* [ANTH 3628](#) - Women in Cross-Cultural Perspective (3.0 cr)
- or* [ANTH 4621](#) - Myth and Sacred Symbols (3.0 cr)
- or* [ANTH 4631](#) - Anthropology and Environment [SUSTAIN] (3.0 cr)
- or* [ANTH 4633](#) - Ethnobotany [SUSTAIN] (4.0 cr)
- or* [AST 1050](#) - Native Skywatchers: Indigenous Ethno- and ArchaeoAstronomy [CDIVERSITY] (3.0 cr)
- or* [COMM 3535](#) - Intercultural Communication [LE CAT6, LEIP CAT06, CDIVERSITY] (4.0 cr)
- or* [CRIM 3322](#) - Law and Society (3.0 cr)
- or* [CRIM 3375](#) - Restorative Justice (3.0 cr)
- or* [CRIM 4340](#) - Race, Crime and Justice (3.0 cr)
- or* [ENGL 1101](#) - Literature Appreciation [LE CAT9, HUMANITIES] (3.0 cr)
- or* [ENGL 1582](#) - Introduction to World Literatures [LE CAT9, LEIP CAT09, HUMANITIES, GLOBAL PER] (4.0 cr)
- or* [GEOG 2305](#) - Geography of Cultural Diversity [CDIVERSITY] (3.0 cr)
- or* [GEOG 4393](#) - Political Geography (3.0 cr)
- or* [HIST 1304](#) - US History Part I: 1607-1877 [LE CAT7, HUMANITIES] (4.0 cr)
- or* [HIST 1305](#) - US History Part II: 1865-Present [LE CAT7, HUMANITIES] (4.0 cr)
- or* [HIST 2350](#) - Nutrition and American History [HUMANITIES, SUSTAIN] (4.0 cr)
- or* [HIST 3939](#) - Europe in the Age of Renaissance and Reformation: 1348-1648 (4.0 cr)
- or* [LING 1811](#) - Introduction to Linguistics [LE CAT2, LOGIC & QR] (3.0 cr)
- or* [POL 1500](#) - Introduction to Comparative Politics [LE CAT6, LEIP CAT06, GLOBAL PER] (3.0 cr)
- or* [POL 3515](#) - Theories of Comparative Politics (4.0 cr)
- or* [POL 3600](#) - Political Concepts (4.0 cr)
- or* [SOC 4949](#) - Race and Ethnic Relations (3.0 cr)
- or* [SW 1619](#) - Race, Class, and Gender in the United States [LE CAT8, LECD CAT08, SOC SCI, CDIVERSITY] (3.0 cr)
- or* [WS 2101](#) - Women, Race, and Class [LE CAT8, LECD CAT08, SOC SCI, CDIVERSITY] (3.0 cr)

**American Indian Studies Upper Division Electives (9 cr)**

Between the subject area electives and this area, a minimum of nine AMIN credits must be at the 3xxx-4xxx level. AMIN 3393 & 3995 apply to this area. AMIN 3997, 4191, and 4990 do not count toward this requirement.  
AMIN 3xxx-4xxx level courses

**Advanced Writing Requirement (3 cr)**

WRIT 31xx - Adv Writing (3 cr)

## Duluth Campus

# American Indian Studies Minor

American Indian Studies

## College of Liberal Arts

- Program Type: Undergraduate minor related to major
- Requirements for this program are current for Fall 2016
- Required credits in this minor: 18

American Indian Studies (AIS) is an interdisciplinary academic department offering coursework committed to broadening knowledge of the worldview, histories, languages, literatures, cultures, arts, and contemporary experiences of American Indian nations and peoples. As American Indian nations maintain a distinct political relationship with the federal government rooted in historical treaties, congressional laws, and executive orders, AIS promotes an awareness for and understanding of tribal sovereignty and self-determination. AIS strives to protect the integrity and identity of the indigenous population of North America and to create an intellectual learning environment conducive to critical and creative thought.

## Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

## Minor Requirements

### Core Courses (6 cr)

Take 2 or more course(s) from the following:

- **AMIN 1001** - Introduction to American Indian Studies [CDIVERSITY] (3.0 cr)
- **AMIN 1010** - American Indian Experience to 1900 [LE CAT7, LECD CAT07, CDIVERSITY] (3.0 cr)
- **AMIN 1020** - American Indian Experiences: 1900-present [LE CAT7, LECD CAT07, HUMANITIES, CDIVERSITY] (3.0 cr)
- **AMIN 1103** - Beginning Ojibwe I [LE CAT3, LECD CAT03, COMM & LAN] (3.0 cr)

### Electives (12 cr)

Take at least 12 credits across the following two lists. If additional core courses are taken, they can be used toward this elective requirement total. Students may apply 3 courses at the AMIN 1xxx-2xxx level. One AMIN course with a minimum of 3 credits must be taken at the 3xxx level or higher. Students have the option to take all 12 credits from AMIN 3xxx level or higher. Most AMIN 1xxx-4xxx courses apply here. AMIN 3997, 4191, or 4990 do not count towards this requirement.

Take 0 - 3 course(s) from the following:

- **AMIN 1104** - Beginning Ojibwe II [LE CAT3, LECD CAT03, COMM & LAN] (3.0 cr)
- **AMIN 1606** - Introduction to American Indian Literature [LE CAT9, HUMANITIES, CDIVERSITY] (3.0 cr)
- **AMIN 2015** - Ojibwe History and Culture [SUSTAIN] (3.0 cr)
- **AMIN 2103** - Intermediate Ojibwe I [LE CAT3, LECD CAT03, COMM & LAN] (3.0 cr)
- **AMIN 2104** - Intermediate Ojibwe II [LE CAT3, LECD CAT03, COMM & LAN] (3.0 cr)
- **AMIN 2210** - American Indian Politics: Law, Sovereignty, and Treaty Rights [LE CAT6, SOC SCI, CDIVERSITY] (3.0 cr)
- **AMIN 2405** - American Indian Families and Society [LE CAT8, SOC SCI, CDIVERSITY] (3.0 cr)
- **AMIN 2407** - Boarding Schools and Beyond: A History of American Indian Education [LE CAT8, LECD CAT08, CDIVERSITY] (3.0 cr)
- **AMIN 2605** - Survey of American Indian Arts [LE CAT9, FINE ARTS, CDIVERSITY] (3.0 cr)
- **AMIN 2801** - Introduction to Tribal Administration and Governance (3.0 cr)
- **AMIN 2820** - Foundations of Indigenous Leadership (3.0 cr)

### Required Upper Division Elective

Take 3 or more credit(s) from the following:

- **AMIN 3206** - Federal Indian Policy [LE CAT8, LECD CAT08, SOC SCI, CDIVERSITY] (3.0 cr)
- **AMIN 3230** - American Indian Tribal Government and Law [SOC SCI, CDIVERSITY] (3.0 cr)
- **AMIN 3393** - Projects in American Indian Studies (1.0 - 5.0 cr)
- **AMIN 3410** - Fur Trade in Canada and the United States [CDIVERSITY] (3.0 cr)
- **AMIN 3420** - American Indians in Sports [LE CAT7, LECD CAT07, CDIVERSITY] (3.0 cr)
- **AMIN 3430** - Global Indigenous Studies [GLOBAL PER] (3.0 cr)
- **AMIN 3450** - American Indian Women [CDIVERSITY] (3.0 cr)
- **AMIN 3620** - Ojibwe Literatures: Sovereignty and Survivance [CDIVERSITY] (3.0 cr)
- **AMIN 3660** - American Indian Novel [HUMANITIES, CDIVERSITY] (3.0 cr)
- **AMIN 3810** - Fundamentals of Tribal Strategic Management (3.0 cr)
- **AMIN 3820** - Fundamentals of Tribal Project Management (3.0 cr)



- AMIN 3995 - Special Topics: (Various Title to be Assigned) (3.0 cr)
- AMIN 4230 - Introduction to Federal Indian Law [SOC SCI, CDIVERSITY] (3.0 cr)
- AMIN 4240 - American Indian Education Policy Development in the 20th Century [CDIVERSITY] (3.0 cr)
- AMIN 4250 - American Indian Diplomacy: Treaties, Compacts, and Agreements [GLOBAL PER] (3.0 cr)
- AMIN 4630 - American Indians and the Media [HUMANITIES, CDIVERSITY] (3.0 cr)
- AMIN 4640 - American Indians in the Movies [HUMANITIES, CDIVERSITY] (3.0 cr)
- AMIN 4810 - Best Practices in Tribal Administration (3.0 cr)
- AMIN 4840 - Current Issues and Opportunities in Tribal Administration and Governance (3.0 cr)



### **Duluth Campus**

## **Anthropology B.A.**

*Sociology/Anthropology*

### **College of Liberal Arts**

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 120
- Required credits within the major: 40
- Degree: Bachelor of Arts

Anthropology focuses on the holistic study of diverse peoples and cultures with a central focus on what it means to be human. We are committed to an integrative and comparative approach that draws on the rich tradition of the four-fields (cultural anthropology, archaeology, linguistics, biological anthropology) while also bringing the methods and insights of the discipline to issues of critical importance to today's globalizing societies.

We emphasize qualitative methodology, including knowledge of the uses and limitations of standard methods, visual analysis and the production of visual representations of reality using tools such as photography and video, participatory research with communities, and public ethnography. We also emphasize a strong ethical component concerning the study of humans, and the relationship between theory and method in qualitative fieldwork.

Areas of knowledge and skills our program delivers:

specific ethnographic areas such as Middle, Central and South America, the Middle East, Europe, North America (including U.S. culture), Africa.

political, social, and environmental issues within the context of international and intranational diversity, framed within the Department's overall unifying socially-relevant themes of inequality, identity, power, social change and development, and global multiculturalism.

community engagement and participatory culture.

major historical and contemporary theoretical perspectives.

A final project, ANTH 4653-Senior Seminar, provides anthropology majors a capstone experience to use their research skills in applied projects.

Honors requirements: Honors students participate in independent research, working closely with a faculty member. Qualified majors apply to the honors program before the end of the second week of their senior year after they have completed or are enrolled in ANTH 4651-Development of Anthropological Theory or ANTH 4652-Cultural Theory for Wicked Problems.

## **Program Delivery**

This program is available:

- via classroom (the majority of instruction is face-to-face)

## **Admission Requirements**

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

### **Required prerequisites**

#### **Introductory Requirement (1 cr)**

Transfer students with 24 or more credits and current UMD students who change colleges to CLA are exempt from this requirement.

New first-year students with 24 or more PSEO credits may request to be waived from this requirement.

[UST 1000](#) - UMD Seminar (1.0 - 2.0 cr)

## **General Requirements**

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.

- Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
- If a minor is required, students must take at least three upper division credits in their minor field from UMD.
- The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
- Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

## Program Requirements

- A second field of study (either a minor or another major).

### Lower Division (8 cr)

Choose any two different ANTH 1xxx level courses, for a total of 8 credits. Most ANTH 1xxx courses apply here.

Take 2 or more course(s) from the following:

- [ANTH 1080](#) - Understanding Global Cultures [LE CAT8, LEIP CAT08, SOC SCI, GLOBAL PER] (4.0 cr)
- [ANTH 1602](#) - Biological Anthropology and Archaeology [LE CAT7, LEIP CAT07, SOC SCI] (4.0 cr)
- [ANTH 1604](#) - Cultural Anthropology [LE CAT6, LEIP CAT06, SOC SCI, GLOBAL PER] (4.0 cr)
- [ANTH 1620](#) - Introduction to Public Culture: Citizenship, Science, and Culture (4.0 cr)

### Career Development (2 cr)

[ANTH 2001](#) - Career Development in Anthropology (2.0 cr)

### Upper Division Theory (4 cr)

[ANTH 4651](#) - Development of Anthropological Theory (4.0 cr)  
or [ANTH 4652](#) - Cultural Theory for Wicked Problems (4.0 cr)

### Upper Division Methods (4 cr)

[ANTH 3156](#) - Digital and Participatory Research Methods (4.0 cr)  
or [ANTH 4620](#) - Archaeological Method and Theory (4.0 cr)  
or [SOC 3156](#) - Qualitative Research Methods and Analysis (4.0 cr)

### Senior Capstone (3 cr)

[ANTH 4653](#) - Senior Seminar (3.0 cr)

### Electives (15 cr)

Students must take at least 2 different courses/6-8 credits in ANTH 3xxx and 2 different courses/6-8 credits in ANTH 4xxx. An additional course is required, which may be another ANTH course, or may be from a different area of study in the 'additional elective' area.

Note: ANTH 4696, 4697, 4699 & 4910 carry variable credit. Only three credits maximum in one course or combined from these three courses count toward the ANTH 4xxx requirement; additional credits will apply to the degree.

### ANTH 3xxx

Most ANTH 3xxx courses apply here.

Take 2 or more course(s) from the following:

- [ANTH 3080](#) - Cultural Constructions of the Body (4.0 cr)
- [ANTH 3100](#) - Business Anthropology (4.0 cr)
- [ANTH 3300](#) - Energy, Culture and Society [GLOBAL PER] (4.0 cr)
- [ANTH 3618](#) - Ancient Middle America (3.0 cr)
- [ANTH 3622](#) - Archaeology of the Old World (3.0 cr)
- [ANTH 3624](#) - Archaeology of North America (3.0 cr)
- [ANTH 3628](#) - Women in Cross-Cultural Perspective (3.0 cr)
- [ANTH 3632](#) - Latin American Cultures (3.0 cr)
- [ANTH 3635](#) - Peoples and Cultures of Europe (3.0 cr)
- [ANTH 3638](#) - Peoples and Cultures of the Middle East (3.0 cr)
- [ANTH 3640](#) - What is a City?: Archaeological Perspectives on Urbanism [SUSTAIN] (3.0 cr)
- [ANTH 3641](#) - The City in Film [FINE ARTS] (4.0 cr)
- [ANTH 3642](#) - Exploring Human Origins (3.0 cr)
- [ANTH 3644](#) - Primatology (3.0 cr)
- [ANTH 3691](#) - Independent Study in Anthropology (1.0 - 5.0 cr)



- ANTH 3695 - Special Topics: (Various Titles to be Assigned) (1.0 - 4.0 cr)
- ANTH 3888 - Anthropology of Food [SUSTAIN] (3.0 cr)
- FORS 3200 - ANTH 3200 Exploring Sustainability in Costa Rica (4.0 cr)

#### **ANTH 4xxx**

Most ANTH 4xxx courses apply here.

Take 2 or more course(s) from the following:

- ANTH 4100 - Visual Anthropology (4.0 cr)
- ANTH 4500 - The New Commons: Governing Shared Resources for Present and Future Generations [SUSTAIN] (4.0 cr)
- ANTH 4616 - Culture and Personality (3.0 cr)
- ANTH 4621 - Myth and Sacred Symbols (3.0 cr)
- ANTH 4623 - Anthropology and Contemporary Human Problems (3.0 cr)
- ANTH 4631 - Anthropology and Environment [SUSTAIN] (3.0 cr)
- ANTH 4633 - Ethnobotany [SUSTAIN] (4.0 cr)
- ANTH 4640 - Medical Anthropology (4.0 cr)
- ANTH 4644 - Anthropology of Law (4.0 cr)
- ANTH 4654 - Biological Anthropology (3.0 cr)
- ANTH 4655 - Forensic Anthropology (4.0 cr)
- ANTH 4691 - Independent Study in Anthropology (1.0 - 5.0 cr)
- ANTH 4695 - Special Topics: (Various Titles to be Assigned) (1.0 - 5.0 cr)
- Take at most 3 credit(s) from the following:
  - ANTH 4696 - Field Research in Archaeology (1.0 - 10.0 cr)
  - ANTH 4697 - Anthropology Internship (2.0 - 6.0 cr)
  - ANTH 4699 - Honors Project (2.0 - 4.0 cr)
  - ANTH 4910 - Teaching Assistantship in Anthropology (1.0 - 3.0 cr)

#### **Additional Elective**

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

- AAAS 3xxx-4xxx
- ANTH 1xxx-4xxx
- AMIN 3xxx-4xxx
- CRIM 3xxx-4xxx
- CUE 3xxx-4xxx
- GEOG 3xxx-4xxx
- LING 3xxx-4xxx
- SOC 3xxx-4xxx
- WS 3xxx-4xxx

#### **Advanced Writing Requirement (3 cr)**

WRIT 31xx - Adv Writing (3 cr)



### Duluth Campus

## Anthropology Minor

Sociology/Anthropology

### College of Liberal Arts

- Program Type: Undergraduate minor related to major
- Requirements for this program are current for Fall 2016
- Required credits in this minor: 25

The anthropology minor examines the role of culture in human society, familiarizing students with the study of diverse peoples and cultures. Students are allowed flexibility in exploring substantive courses relevant to their interests.

### Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

### Minor Requirements

#### Lower Division (8 cr)

Choose any two different ANTH 1xxx level courses, for a total of 8 credits. Most ANTH 1xxx courses will apply here.

Take 2 or more course(s) from the following:

- ANTH 1080 - Understanding Global Cultures [LE CAT8, LEIP CAT08, SOC SCI, GLOBAL PER] (4.0 cr)
- ANTH 1602 - Biological Anthropology and Archaeology [LE CAT7, LEIP CAT07, SOC SCI] (4.0 cr)
- ANTH 1604 - Cultural Anthropology [LE CAT6, LEIP CAT06, SOC SCI, GLOBAL PER] (4.0 cr)
- ANTH 1620 - Introduction to Public Culture: Citizenship, Science, and Culture (4.0 cr)

#### Career Development (2 cr)

ANTH 2001 - Career Development in Anthropology (2.0 cr)

#### Electives (15 cr)

Students must take at least 2 courses/6-8 credits in ANTH 3xxx and 2 courses/6-8 credits in ANTH 4xxx. An additional course is required, which may be another ANTH course, or may be from a different area of study in the 'additional elective' area.

Note: ANTH 4696, 4697, 4699, & 4910 carry variable credit. Only three credits maximum in one course or combined from these three courses counts towards the ANTH 4xxx requirement; additional credits will apply to the degree.

#### ANTH 3xxx

Most ANTH 3xxx courses will apply here.

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

- ANTH 3080 - Cultural Constructions of the Body (4.0 cr)
- ANTH 3100 - Business Anthropology (4.0 cr)
- ANTH 3156 - Digital and Participatory Research Methods (4.0 cr)
- ANTH 3300 - Energy, Culture and Society [GLOBAL PER] (4.0 cr)
- ANTH 3618 - Ancient Middle America (3.0 cr)
- ANTH 3622 - Archaeology of the Old World (3.0 cr)
- ANTH 3624 - Archaeology of North America (3.0 cr)
- ANTH 3628 - Women in Cross-Cultural Perspective (3.0 cr)
- ANTH 3632 - Latin American Cultures (3.0 cr)
- ANTH 3635 - Peoples and Cultures of Europe (3.0 cr)
- ANTH 3638 - Peoples and Cultures of the Middle East (3.0 cr)
- ANTH 3640 - What is a City?: Archaeological Perspectives on Urbanism [SUSTAIN] (3.0 cr)
- ANTH 3641 - The City in Film [FINE ARTS] (4.0 cr)
- ANTH 3642 - Exploring Human Origins (3.0 cr)
- ANTH 3644 - Primatology (3.0 cr)
- ANTH 3691 - Independent Study in Anthropology (1.0 - 5.0 cr)
- ANTH 3695 - Special Topics: (Various Titles to be Assigned) (1.0 - 4.0 cr)
- ANTH 3888 - Anthropology of Food [SUSTAIN] (3.0 cr)
- FORS 3200 - ANTH 3200 Exploring Sustainability in Costa Rica (4.0 cr)

#### ANTH 4xxx

Most ANTH 4xxx courses will apply here.



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

- ANTH 4100 - Visual Anthropology (4.0 cr)
- ANTH 4500 - The New Commons: Governing Shared Resources for Present and Future Generations [SUSTAIN] (4.0 cr)
- ANTH 4616 - Culture and Personality (3.0 cr)
- ANTH 4620 - Archaeological Method and Theory (4.0 cr)
- ANTH 4621 - Myth and Sacred Symbols (3.0 cr)
- ANTH 4623 - Anthropology and Contemporary Human Problems (3.0 cr)
- ANTH 4631 - Anthropology and Environment [SUSTAIN] (3.0 cr)
- ANTH 4633 - Ethnobotany [SUSTAIN] (4.0 cr)
- ANTH 4640 - Medical Anthropology (4.0 cr)
- ANTH 4644 - Anthropology of Law (4.0 cr)
- ANTH 4651 - Development of Anthropological Theory (4.0 cr)
- ANTH 4652 - Cultural Theory for Wicked Problems (4.0 cr)
- ANTH 4653 - Senior Seminar (3.0 cr)
- ANTH 4654 - Biological Anthropology (3.0 cr)
- ANTH 4655 - Forensic Anthropology (4.0 cr)
- ANTH 4691 - Independent Study in Anthropology (1.0 - 5.0 cr)
- ANTH 4985 - Critical Animal Studies (4.0 cr)
- **Optional Elective (3 cr)**
  - Take at most 3 credit(s) from the following:
  - ANTH 4696 - Field Research in Archaeology (1.0 - 10.0 cr)
  - ANTH 4697 - Anthropology Internship (2.0 - 6.0 cr)
  - ANTH 4699 - Honors Project (2.0 - 4.0 cr)
  - ANTH 4910 - Teaching Assistantship in Anthropology (1.0 - 3.0 cr)

**Additional Elective**

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

- AAAS 3xxx-4xxx
- AMIN 3xxx-4xxx
- ANTH 1xxx-4xxx
- CRIM 3xxx-4xxx
- CUE 3xxx-4xxx
- GEOG 3xxx-4xxx
- LING 3xxx-4xxx
- SOC 3xxx-4xxx
- WS 3xxx-4xxx

### **Duluth Campus**

## **Chinese Area Studies B.A.**

*Foreign Languages & Literatures*

### **College of Liberal Arts**

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 120
- Required credits within the major: 33 to 49
- This program requires summer terms.
- Study abroad is required.
- Degree: Bachelor of Arts

This program prepares students to thrive as globally aware and cross-culturally competent citizens through a critical understanding of Chinese cultures. Students develop functional Mandarin language communication skills. Topics studied pertain to Chinese literature, history, politics, and art. This major addresses the role of China within larger global contexts. A major in Chinese Area Studies prepares graduates to apply their language skills, cultural knowledge, and global awareness to a wide variety of career choices (government, international relations, foreign service, immigration services, tourism, and entrepreneurship).

Study abroad (3 cr minimum) is required for this major.

### **Program Delivery**

This program is available:

- via classroom (the majority of instruction is face-to-face)

### **Admission Requirements**

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

#### **Required prerequisites**

##### **Introductory Requirement (1 cr)**

Transfer students with 24 or more credits and current UMD students who change colleges to CLA are exempt from this requirement. New first-year students with 24 or more PSEO credits may request to be waived from this requirement.

[UST 1000](#) - UMD Seminar (1.0 - 2.0 cr)

### **General Requirements**

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

### **Program Requirements**

1. A second field of study (either a minor or another major).



2. Study abroad is required for this major.

**Required Language Core (0-16 cr)**

Students with previous language study may be exempt from some core requirements and should consult the department about placement. Students who fulfill the study abroad requirement with FST/CHIN 1399 will be exempt from CHIN 1202 by request.

[CHIN 1101](#) - Beginning Chinese I: A Practical Introduction to Everyday Mandarin Chinese [LE CAT3, LEIP CAT03, COMM & LAN] (4.0 cr)

[CHIN 1102](#) - Beginning Chinese II: A Practical Introduction to Everyday Mandarin Chinese [LE CAT3, LEIP CAT03, COMM & LAN] (4.0 cr)

[CHIN 1201](#) - Intermediate Chinese I: Mandarin Chinese [LE CAT3, LEIP CAT03, COMM & LAN] (4.0 cr)

[CHIN 1202](#) - Intermediate Chinese II: Mandarin Chinese [LE CAT3, LEIP CAT03, COMM & LAN] (4.0 cr)

**Required Culture Core (4 cr)**

[CHIN 3042](#) - Aspects of Chinese Cultures: Interface between Traditions and Contemporary Values [HUMANITIES, GLOBAL PER] (4.0 cr)

**Required Study Abroad (3 cr)**

FST/CHIN 1399 is strongly recommended. Students participate in Mandarin courses from beginning level to advanced level depending on student proficiency; consists of 90 in-class hours. Students learn Chinese culture in formal academic settings as well as in on-site authentic historical and contemporary environments. Students may participate in other programs, as long as approved by an FLL advisor.

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

•[FORS 2030](#) - HIST 2030: China An Ancient Civilization (3.0 cr)

•[FST 1399](#) - CHIN 1399 Chinese Language in China (6.0 cr)

•[FST 4225](#) - INTB 4201, Chinese Business and Economics (3.0 cr)

**Required Electives (22 cr)**

Most CHIN 3xxx-4xxx courses apply here.

Take 22 or more credit(s) from the following:

•[ARTH 1305](#) - Survey of Non-Western Art [HUMANITIES, GLOBAL PER] (3.0 cr)

•[CHIN 3591](#) - Independent Study (1.0 - 4.0 cr)

•[COMM 3535](#) - Intercultural Communication [LE CAT6, LEIP CAT06, CDIVERSITY] (4.0 cr)

•[HIST 2405](#) - History of Chinese Culture (4.0 cr)

•[HIST 2410](#) - Modern China, Japan, Koreas, Vietnam and East Asia (4.0 cr)

•[HIST 3463](#) - History of Modern China (4.0 cr)

•[HIST 3465](#) - Twentieth Century China Politics (4.0 cr)

•[PHIL 3421](#) - Eastern Philosophy (4.0 cr)

•[POL 3518](#) - Transitional Politics of Asia (3.0 cr)

•[LING 1811](#) - Introduction to Linguistics [LE CAT2, LOGIC & QR] (3.0 cr)

or [PHIL 2011](#) - Philosophy of Language [LE CAT3, SOC SCI] (3.0 cr)

**Advanced Writing Requirement (3 cr)**

Recommended: [WRIT 3100](#) - Advanced Writing: Language and Literature

[WRIT 31xx](#) - Adv Writing (3 cr)

## Duluth Campus

# Chinese Area Studies Minor

Foreign Languages & Literatures

## College of Liberal Arts

- Program Type: Undergraduate minor related to major
- Requirements for this program are current for Fall 2016
- Required credits in this minor: 17 to 33

This program prepares students to thrive as globally aware and cross-culturally competent citizens through a critical understanding of Chinese cultures. Students develop functional Mandarin language communication skills. Topics studied pertain to Chinese literature, history, politics, and art. This program addresses the role of China within larger global contexts. Chinese Area Studies prepares graduates to apply their language skills, cultural knowledge, and global awareness to a wide variety of career choices (government, international relations, foreign service, immigration services, tourism, and entrepreneurship).

## Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

## Minor Requirements

### Core Language Requirement (0-16 cr)

Students with previous language study may be exempt from some core requirements and should consult the department about placement. Students who participate in FST 1399 (study abroad, 6 cr) will be exempt from CHIN 1104 by request.

- [CHIN 1101](#) - Beginning Chinese I: A Practical Introduction to Everyday Mandarin Chinese [LE CAT3, LEIP CAT03, COMM & LAN] (4.0 cr)
- [CHIN 1102](#) - Beginning Chinese II: A Practical Introduction to Everyday Mandarin Chinese [LE CAT3, LEIP CAT03, COMM & LAN] (4.0 cr)
- [CHIN 1103](#) - Beginning Chinese III: A Practical Introduction to Everyday Mandarin Chinese [LE CAT3, COMM & LAN] (4.0 cr)
- [CHIN 1104](#) - Beginning Chinese IV: A Practical Introduction to Everyday Mandarin Chinese [LE CAT3, COMM & LAN] (4.0 cr)

### Core Requirement (4 cr)

- [CHIN 3042](#) - Aspects of Chinese Cultures: Interface between Traditions and Contemporary Values [HUMANITIES, GLOBAL PER] (4.0 cr)

### Electives (13 cr)

Students may apply a maximum of 2 courses from the lower division list below. Students must take at least 7 credits from the upper division list below. FST/CHIN 1399 counts as one course. Students may select other study abroad programs through UMD's International Programs & Services office, as long as the program pertains to Chinese Area Studies and is approved by a FLL advisor.

### Lower Division (optional)

Take no more than 2 course(s) from the following:

- [ARTH 1305](#) - Survey of Non-Western Art [HUMANITIES, GLOBAL PER] (3.0 cr)
- [FST 1399](#) - CHIN 1399 Chinese Language in China (6.0 cr)
- [FORS 2030](#) - HIST 2030: China An Ancient Civilization (3.0 cr)
- [HIST 2405](#) - History of Chinese Culture (4.0 cr)
- [HIST 2410](#) - Modern China, Japan, Korea, Vietnam and East Asia (4.0 cr)
- [LING 1811](#) - Introduction to Linguistics [LE CAT2, LOGIC & QR] (3.0 cr)  
or [PHIL 2011](#) - Philosophy of Language [LE CAT3, SOC SCI] (3.0 cr)

### Upper Division

Most CHIN 3xxx courses apply here.

Take 7 or more credit(s) from the following:

- [CHIN 3591](#) - Independent Study (1.0 - 4.0 cr)
- [COMM 3535](#) - Intercultural Communication [LE CAT6, LEIP CAT06, CDIVERSITY] (4.0 cr)
- [FST 4225](#) - INTB 4201, Chinese Business and Economics (3.0 cr)
- [HIST 3463](#) - History of Modern China (4.0 cr)
- [HIST 3465](#) - Twentieth Century China Politics (4.0 cr)
- [PHIL 3421](#) - Eastern Philosophy (4.0 cr)





## Duluth Campus

# Cognitive Science Minor

Philosophy

## College of Liberal Arts

- Program Type: Undergraduate free-standing minor
- Requirements for this program are current for Fall 2016
- Required credits in this minor: 18

Cognitive Science is the interdisciplinary attempt to understand the mind, especially the human mind (with the prospect of creating artificial minds coming in a close second).

Understanding the mind and intelligence has long been a goal that seemed out of reach. The mind, consciousness, intelligence, and the related phenomena have been addressed by researchers in many areas including philosophy, psychology, linguistics, medicine, neuroscience, and artificial intelligence. These disciplines have very different histories and at universities are often separated by distance and academic culture. However, in the past 30 years, there has been a convergence of these disciplines on a few research paradigms: computational models of perception and reasoning, connectionism, and embodied cognition. It is now possible to form a more complete understanding of minds by drawing on contributions from all these disciplines, and a great deal of progress has been made. This has led to the rise at many universities of interdisciplinary programs in Cognitive Science. The programs exploit the insights that come from a variety of disciplinary approaches to understanding a single phenomenon: cognition.

More specifically, Cognitive Science aims to understand the nature and development of such intelligent capacities as consciousness, perception, information processing, language acquisition and processing, planning, reasoning, learning, representation and use of knowledge, and problem-solving, whether these capacities are realized in biological or artificial systems. The Cognitive Science Minor looks to the theoretical foundations, the substantive empirical results, and the methodological tools of the contributing disciplines of Linguistics, Computer Science, Philosophy and Psychology. The hope of Cognitive Science is that by combining the methods and results of all these branches, we will be able to provide a global understanding of the mind, how it works, and why it works that way.

Graduates of the minor program will be prepared for study in one of the many recently developed graduate Cognitive Science programs (including the Ph.D. offered at the Center for Cognitive Science at the University of Minnesota, Twin Cities) as well as graduate study in related programs such as cognition, brain, and behavior, cognitive neuroscience, artificial intelligence, and human-computer interaction. Those who choose to study the law, a path frequently chosen by philosophy majors, will be well suited for legal practice concerned with the variety of legal complexities associated with the development of these new technologies.

## Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

## Admission Requirements

A GPA above 2.0 is preferred for the following:

- 3.00 already admitted to the degree-granting college
- 3.00 transferring from another University of Minnesota college

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

## Minor Requirements

### Core Requirement (3 cr)

[PHIL 1025](#) - Introduction to Cognitive Science [NAT SCI] (3.0 cr)

### Required Electives (15 cr)

Five courses across the listed subject areas, with the following stipulations:

Two courses maximum may come from any one listed subject area.

For the purposes of the minor: Computer Science (CS), Electrical Engineering (EE), Industrial Engineering (IE) and Mechanical Engineering (ME) will be considered as a single subject.

Students are advised to review course pre-requisites for upper-division electives.

### Computer Science

Take no more than 2 course(s) from the following:

- [CS 5541](#) - Artificial Intelligence (4.0 cr)



- CS 5751 - Introduction to Machine Learning (4.0 cr)
- CS 5761 - Introduction to Natural Language Processing (4.0 cr)

**Linguistics**

Take no more than 2 course(s) from the following:

- LING 1811 - Introduction to Linguistics [LE CAT2, LOGIC & QR] (3.0 cr)
- LING 3102 - Introduction to Syntax (3.0 cr)
- LING 3103 - Dimensions of Meaning (3.0 cr)
- LING 4103 - Morphology: Word Structures and Rules (3.0 cr)
- LING 5400 - Sociolinguistics (3.0 cr)

**Philosophy**

Take no more than 2 course(s) from the following:

- PHIL 1018 - Logic [LE CAT2, LOGIC & QR] (4.0 cr)
- PHIL 2011 - Philosophy of Language [LE CAT3, SOC SCI] (3.0 cr)
- PHIL 3570 - Philosophy of Psychology (4.0 cr)

**Psychology**

Take no more than 2 course(s) from the following:

- PSY 3061 - Physiological Psychology (4.0 cr)
- PSY 3520 - Introduction to Industrial/Organizational Psychology (4.0 cr)
- PSY 3611 - Learning and Behavior (4.0 cr)
- PSY 3613 - Applied Behavior Analysis and Behavior Change (4.0 cr)
- PSY 3621 - Cognition (4.0 cr)
- PSY 3661 - Psychology of Language (3.0 cr)
- PSY 3697 - Sensation and Perception (4.0 cr)
- PSY 5130 - Evolutionary Psychology (3.0 cr)



## Duluth Campus

# Communication B.A.

Communication

## College of Liberal Arts

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 120
- Required credits within the major: 40
- Degree: Bachelor of Arts

At the core of the communication discipline is a concern for the relationship between symbolic action (speaking, writing, etc.) and social change. The B.A. in communication emphasizes the breadth and diversity of the communication field, with an integrated focus that spans social scientific and cultural/historical methodologies. Students develop conceptual and research competence in the areas of interpersonal communication, mass media, and rhetorical theory and practice.

Honors Requirements: Candidates must be communication majors with a 3.30 GPA in all communication courses and 3.30 U of MN GPA overall. Students write an honors-quality paper sponsored by a communication faculty member and approved by two additional communication faculty. Candidates apply before the end of the first four weeks of their senior year. Contact the department head or academic adviser for more information.

## Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

## Admission Requirements

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

### Required prerequisites

#### Introductory Requirement (1 cr)

Transfer students with 24 or more credits and current UMD students who change colleges to CLA are exempt from this requirement. New first-year students with 24 or more PSEO credits may request to be waived from this requirement.

[UST 1000](#) - UMD Seminar (1.0 - 2.0 cr)

## General Requirements

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

## Program Requirements

1. Current students electing to declare the communication major must have a U of M cumulative GPA of 2.50. Students not meeting the

GPA requirement will be considered for admission based on their recent academic performance, particularly in COMM courses.

2. A second field of study (either a minor or another major).

### Core Courses (12 cr)

Students must complete the core with a C or better to be admitted to COMM 5000.

- COMM 1000 - Human Communication Theory [LE CAT3, SOC SCI] (3.0 cr)
- COMM 2025 - Communication Inquiry: Rhetorical and Historical Methods (3.0 cr)
- COMM 2030 - Communication Inquiry: Social Scientific Methods (3.0 cr)
- COMM 1112 - Public Speaking [LE CAT3, COMM & LAN] (3.0 cr)  
or COMM 1511 - Honors: Public Speaking [LE CAT3, COMM & LAN] (3.0 cr)

### Electives

Seven elective courses totaling 21 credits are required. One course is required from each distributed electives area. An additional 12 credits must be completed. Within these 12 credits, six credits must be COMM 3xxx level or above with the following restrictions: COMM 3300, 3310, 4394, 4397, 4399, and 5391 do not apply to the major, but do apply as elective credit(s) towards the degree.

### Distributed Electives (9 cr)

Take at least one course from each area. Additional courses may be applied to the other electives area.

#### Interpersonal Communication

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

- COMM 3200 - Interpersonal Communication Theory (3.0 cr)
- COMM 3205 - Relationship Communication (3.0 cr)
- COMM 3210 - Group Communication (3.0 cr)
- COMM 3295 - Special Topics: Interpersonal Communication (Various titles to be assigned) (3.0 cr)
- COMM 3400 - Health Communication (3.0 cr)
- COMM 3535 - Intercultural Communication [LE CAT6, LEIP CAT06, CDIVERSITY] (4.0 cr)
- COMM 3700 - Interpersonal Influence (3.0 cr)
- COMM 4210 - Theories of Intercultural Communication (3.0 cr)
- COMM 4220 - Interpersonal Communication & Health Outcomes (3.0 cr)
- FST 4006 - COMM 4949, Intercultural Hawaiian Experience (4.0 cr)

#### Media Studies

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

- COMM 2101 - Foundations of Mass Communication [LE CAT8, SOC SCI] (3.0 cr)
- COMM 3211 - Communication and Technology in the Information Age (3.0 cr)
- COMM 3405 - Health Campaigns (3.0 cr)
- COMM 3505 - Media Communications (3.0 cr)
- COMM 3515 - Communication and Popular Culture (3.0 cr)
- COMM 3520 - Media Effects [SOC SCI] (3.0 cr)
- COMM 3550 - Children and Media (3.0 cr)
- COMM 3560 - Video Game Entertainment (3.0 cr)
- COMM 3595 - Special Topics: Media Communication (3.0 cr)
- COMM 4505 - Media Theory and Research (3.0 cr)

#### Rhetoric

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

- COMM 3115 - Persuasion and Argumentation in Public Speaking (3.0 cr)
- COMM 3510 - Ethics in Human Communication (3.0 cr)
- COMM 3610 - Philosophy and Rhetoric [HUMANITIES] (3.0 cr)
- COMM 3612 - Rhetorical Criticism (3.0 cr)
- COMM 3615 - Analysis of Public Discourse (3.0 cr)
- COMM 3620 - Controversy in the Boundary Waters [SUSTAIN] (3.0 cr)
- COMM 3695 - Special Topics in Rhetoric Communication (3.0 cr)
- COMM 4500 - History of Rhetoric (3.0 cr)

### Other Electives (12 cr)

To satisfy this requirement, students may take two courses at the COMM 1xxx-2xxx level. Students must take a minimum of 6 credits from COMM 3xxx level or above courses. Students have the option to take all 12 credits from COMM 3xxx level or above courses to satisfy this requirement. Courses satisfying another requirement area in the major cannot also apply to this area.

Take 0 - 2 course(s) from the following:

- COMM 1010 - Persuasion [LE CAT6, SOC SCI] (3.0 cr)
- COMM 1222 - Interpersonal Communication [LE CAT3, LECD CAT03, COMM & LAN] (3.0 cr)
- COMM 1500 - Media and Society [LE CAT8, HUMANITIES] (3.0 cr)
- COMM 1600 - Argumentation and Debate: A Practical Approach [LOGIC & QR] (3.0 cr)



**•COMM 3xxx or above (6 cr required)**

Additional courses taken within the distributed electives areas may apply to this area. NOTE: COMM 3300, 3310, 4394, 4397, 4399, and 5391 do not apply to the major, but are applicable toward the degree as elective credit(s).

Take 6 or more credit(s) from the following:

- [COMM 3116](#) - Professional Communication (3.0 cr)
- [COMM 3215](#) - Conflict Management (3.0 cr)
- [COMM 3223](#) - Communication and Creativity (3.0 cr)
- [COMM 3395](#) - Special Topics: (Various Titles to be Assigned) (3.0 cr)
- [COMM 3525](#) - Deciding What's News (3.0 cr)
- [COMM 3555](#) - Mass Media Addiction (3.0 cr)
- [COMM 3605](#) - Public Relations (3.0 cr)
- [FORS 3800](#) - COMM 3800/GEOG 3800 Grassroots Activism in India (4.0 cr)

**Senior Seminar (3 cr)**

Students must complete the required core (COMM 1000, 1112 or 1511, 2025, 2030) with a C or better to be admitted to any COMM 5000. This prerequisite is verified by the department prior to the start of every term. Students not satisfying the prerequisite are notified by email. COMM 5000 is not included within the electives area.

[COMM 5000](#) - Senior Seminar (3.0 cr)

**Advanced Writing Requirement (3 cr)**

Students majoring in communication with a journalism minor are exempt from the advanced writing requirement.

[WRIT 31xx](#) - Adv Writing (3 cr)

## Duluth Campus

# Communication Minor

Communication

## College of Liberal Arts

- Program Type: Undergraduate minor related to major
- Requirements for this program are current for Fall 2016
- Required credits in this minor: 21

The communication minor emphasizes the breadth and diversity of the communication field (interpersonal communication, mass media and rhetorical theory and practice).

## Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

## Minor Requirements

### Core Courses (6 cr)

Students must complete the following courses with a C or better.

[COMM 1000](#) - Human Communication Theory [LE CAT3, SOC SCI] (3.0 cr)

[COMM 1112](#) - Public Speaking [LE CAT3, COMM & LAN] (3.0 cr)

or [COMM 1511](#) - Honors: Public Speaking [LE CAT3, COMM & LAN] (3.0 cr)

### Electives

Five elective courses totaling 15 credits are required. Two of these courses must be from at least two of the Distributed Electives areas. An additional nine credits must be completed. Within these nine credits, six credits must be COMM 3xxx level or above with the following restrictions: COMM 3300, 3310, 4394, 4397, 4399 & 5391 do not apply to the minor, but do apply as elective credit(s) toward the degree.

### Distributed Electives (6 cr)

Take at least one course from two of the following areas. Additional courses may be applied to the Other Electives area.

#### Interpersonal Communication

Take 0 - 1 course(s) from the following:

- [COMM 3200](#) - Interpersonal Communication Theory (3.0 cr)
- [COMM 3205](#) - Relationship Communication (3.0 cr)
- [COMM 3210](#) - Group Communication (3.0 cr)
- [COMM 3295](#) - Special Topics: Interpersonal Communication (Various titles to be assigned) (3.0 cr)
- [COMM 3400](#) - Health Communication (3.0 cr)
- [COMM 3535](#) - Intercultural Communication [LE CAT6, LEIP CAT06, CDIVERSITY] (4.0 cr)
- [COMM 3700](#) - Interpersonal Influence (3.0 cr)
- [COMM 4210](#) - Theories of Intercultural Communication (3.0 cr)
- [COMM 4220](#) - Interpersonal Communication & Health Outcomes (3.0 cr)
- [FST 4006](#) - COMM 4949, Intercultural Hawaiian Experience (4.0 cr)

#### or Media Studies

Take 0 - 1 course(s) from the following:

- [COMM 2101](#) - Foundations of Mass Communication [LE CAT8, SOC SCI] (3.0 cr)
- [COMM 3211](#) - Communication and Technology in the Information Age (3.0 cr)
- [COMM 3405](#) - Health Campaigns (3.0 cr)
- [COMM 3505](#) - Media Communications (3.0 cr)
- [COMM 3515](#) - Communication and Popular Culture (3.0 cr)
- [COMM 3520](#) - Media Effects [SOC SCI] (3.0 cr)
- [COMM 3550](#) - Children and Media (3.0 cr)
- [COMM 3560](#) - Video Game Entertainment (3.0 cr)
- [COMM 3595](#) - Special Topics: Media Communication (3.0 cr)
- [COMM 4505](#) - Media Theory and Research (3.0 cr)

#### or Rhetoric

Take 0 - 1 course(s) from the following:

- [COMM 3115](#) - Persuasion and Argumentation in Public Speaking (3.0 cr)
- [COMM 3510](#) - Ethics in Human Communication (3.0 cr)



- [COMM 3610](#) - Philosophy and Rhetoric [HUMANITIES] (3.0 cr)
- [COMM 3612](#) - Rhetorical Criticism (3.0 cr)
- [COMM 3615](#) - Analysis of Public Discourse (3.0 cr)
- [COMM 3620](#) - Controversy in the Boundary Waters [SUSTAIN] (3.0 cr)
- [COMM 3695](#) - Special Topics in Rhetoric Communication (3.0 cr)
- [COMM 4500](#) - History of Rhetoric (3.0 cr)

#### Other Electives (9 cr)

To satisfy this requirement, students may take one course at the COMM 1xxx-2xxx level. Students must take a minimum of six credits from COMM 3xxx level or above courses. Students have the option to take all nine credits from COMM 3xxx level or above to satisfy this requirement. Courses satisfying another requirement area in the minor cannot apply to this area.

Take no more than 1 course(s) from the following:

- [COMM 1010](#) - Persuasion [LE CAT6, SOC SCI] (3.0 cr)
- [COMM 1222](#) - Interpersonal Communication [LE CAT3, LECD CAT03, COMM & LAN] (3.0 cr)
- [COMM 1500](#) - Media and Society [LE CAT8, HUMANITIES] (3.0 cr)
- [COMM 1600](#) - Argumentation and Debate: A Practical Approach [LOGIC & QR] (3.0 cr)
- [COMM 2025](#) - Communication Inquiry: Rhetorical and Historical Methods (3.0 cr)
- [COMM 2030](#) - Communication Inquiry: Social Scientific Methods (3.0 cr)

#### •[COMM 3xxx-4xxx](#) (6 cr required)

Additional courses taken within the Distributed Electives areas may apply to this area. NOTE: COMM 3300, 3310, 4394, 4397, 4399 & 5391 do not apply to the minor, but do apply as elective credit(s) toward the degree.

Take 6 or more credit(s) from the following:

- [COMM 3116](#) - Professional Communication (3.0 cr)
- [COMM 3215](#) - Conflict Management (3.0 cr)
- [COMM 3223](#) - Communication and Creativity (3.0 cr)
- [COMM 3395](#) - Special Topics: (Various Titles to be Assigned) (3.0 cr)
- [COMM 3525](#) - Deciding What's News (3.0 cr)
- [COMM 3555](#) - Mass Media Addiction (3.0 cr)
- [COMM 3605](#) - Public Relations (3.0 cr)
- [FORS 3800](#) - COMM 3800/GEOG 3800 Grassroots Activism in India (4.0 cr)



### **Duluth Campus**

## **Criminology B.A.**

*Sociology/Anthropology*

### **College of Liberal Arts**

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 120
- Required credits within the major: 42
- Degree: Bachelor of Arts

Criminology is the study of crime and criminal behavior. The criminology program focuses on crime as a social phenomenon and the causes of criminal behavior. The major provides an overview of institutions, issues and causes of crime, and social control; it also offers a strong foundation in liberal arts, a basic knowledge of behavioral sciences, and a strong professional growth potential for those pursuing a career in criminology or the criminal justice system. Many criminology majors enter law, law enforcement, corrections, and other social service careers or graduate school.

Honors requirements: The department honors program recognizes majors who demonstrate outstanding academic performance, provides special educational opportunities for such students, and encourages the development of specialty areas within the major. Honors students participate in independent research, working closely with a faculty member. Qualified majors apply to the honors program before the end of the second week of the first semester of their senior year.

### **Program Delivery**

This program is available:

- via classroom (the majority of instruction is face-to-face)

### **Admission Requirements**

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

#### **Required prerequisites**

##### **Introductory Requirement (1 cr)**

Transfer students with 24 or more credits and current University of Minnesota Duluth students who change colleges to College of Liberal Arts are exempt from this requirement. New first-year students with 24 or more PSEO credits may request to be waived from this requirement.

[UST 1000](#) - UMD Seminar (1.0 - 2.0 cr)

### **General Requirements**

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.



## Program Requirements

1. A second field of study (either a minor or another major).
2. Completion of the lower division core requirements before beginning the upper division core.
3. Study abroad is encouraged for all students and the department makes every effort to facilitate such experiences.
4. Students electing to major in criminology and sociology must follow the fall 2014 requirements or later for both programs.

### Lower Division Core (12 cr)

A grade of C or better is required in each course.

[CRIM 1301](#) - Introduction to Criminology [LE CAT8, SOC SCI] (4.0 cr)

[CRIM 2311](#) - Criminological Theory (4.0 cr)

[SOC 2155](#) - Introduction to Research Methods and Analysis (4.0 cr)

### Upper Division Core (11 cr)

After successfully completing SOC 4587, a student must wait at least one semester before registering for SOC 4597. Students intern in a setting related to their career interests. (Students also majoring in psychology may request to substitute PSY 3020 for SOC 3155. See the department head for approval.)

[SOC 3155](#) - Quantitative Research Methods and Analysis (4.0 cr)

[SOC 4587](#) - Internship Preparation (1.0 cr)

[SOC 4597](#) - Internship (6.0 - 8.0 cr)

### Inequality Course (3 cr)

Students take at least one course listed below to fulfill this requirement. If both CRIM inequality courses are taken, one course will apply as elective credit toward the major.

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

•[CRIM 4323](#) - Women and Justice (3.0 cr)

•[CRIM 4340](#) - Race, Crime and Justice (3.0 cr)

•[SOC 3330](#) - The American Civil Rights Movement [SOC SCI, CDIVERSITY] (3.0 cr)

•[SOC 3945](#) - Social Stratification (3.0 cr)

•[SOC 4947](#) - Sociology of Gender Identities and Systems (3.0 cr)

•[SOC 4949](#) - Race and Ethnic Relations (3.0 cr)

### Criminology Electives (9 cr)

Most CRIM 3xxx-4xxx courses will apply here.

Take 9 or more credit(s) from the following:

•[CRIM 3322](#) - Law and Society (3.0 cr)

•[CRIM 3324](#) - Sociology of Criminal Law (3.0 cr)

•[CRIM 3328](#) - Delinquency and Juvenile Justice (3.0 cr)

•[CRIM 3336](#) - Crime and the Media (3.0 cr)

•[CRIM 3338](#) - Sociology of Gangs (3.0 cr)

•[CRIM 3344](#) - Law Enforcement and Society (3.0 cr)

•[CRIM 3350](#) - Psychopathology and Crime (3.0 cr)

•[CRIM 3361](#) - Correctional Continuum (3.0 cr)

•[CRIM 3369](#) - Correctional Assessment and Intervention (3.0 cr)

•[CRIM 3375](#) - Restorative Justice (3.0 cr)

•[CRIM 3380](#) - Death Penalty (3.0 cr)

•[CRIM 3395](#) - Special Topics: (Various Titles to be Assigned) (1.0 - 3.0 cr)

•[CRIM 4305](#) - Mentally Ill Offenders in the Criminal Justice System (3.0 cr)

•[CRIM 4350](#) - Corporate and Governmental Deviance (3.0 cr)

•[CRIM 4382](#) - Victimology (3.0 cr)

•[CRIM 4384](#) - Child Abuse and Child Protection in Minnesota (3.0 cr)

•[CRIM 4391](#) - Independent Study in Criminology (1.0 - 6.0 cr)

•[CRIM 4399](#) - Honors Project Criminology (1.0 - 8.0 cr)

•[CRIM 4910](#) - Teaching Assistantship in Criminology (1.0 - 3.0 cr)

•[CRIM 4930](#) - Understanding Violence (3.0 cr)

•[CRIM 3355](#) - Criminal Forensic Psychology (3.0 cr)

or [PSY 5155](#) - Forensic Psychology (3.0 cr)

### Additional Required Elective (3 cr)

Students may apply an additional CRIM 3xxx-4xxx course to this area.

Take 3 or more credit(s) from the following:

•AAAS 3xxx-4xxx

or ANTH 3xxx-4xxx



or CRIM 3xxx-4xxx

**Advanced Writing Requirement (3 cr)**

WRIT 3140 or 3160 are recommended.

WRIT 31xx - Adv Writing (3 cr)

### **Duluth Campus**

## **Cultural Entrepreneurship B.A.**

*Foreign Languages & Literatures*

### **College of Liberal Arts**

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 120
- Required credits within the major: 43 to 65
- This program requires summer terms.
- Degree: Bachelor of Arts

Cultural entrepreneurship is an emerging academic discipline that examines how cultural products traditionally associated with the fine and liberal arts, such as art, theater, poetry, and literature, but also cultural activities such as sports, music, food, and film events, are having an increasingly important impact on the growth of local, national, and global economies. Cultural entrepreneurship scholars thus study the impact of culture on economies, and develop new strategies for enhancing local livelihoods by creative, new, sustainable, socially responsible ways of producing income through cultural activity.

The program stresses the centrality of culture in the success of entrepreneurial endeavors. Building on the concept of cognitive ambidexterity, it combines training in quantitative skills and predictive logic that is common in business schools with extensive work in creative logic and thinking, as it is most often cultivated in the liberal arts. Predictive logic refers to the ability to generate models, forecasts, and estimates, while creative logic addresses the ability to self-examine, understand social contexts, and to shape the future by identifying courses of action and negotiating complexities of human decision-making.

Students in this program will complete an extensive core of business entrepreneurship and conceptual core courses. Students will also receive a Certificate in Business Administration from the Labovitz School of Business and Economics (LSBE). Students develop cultural literacy through the study of at least one Foreign or Indigenous language. Students will learn to contextualize cultural entrepreneurship through a minor or major in another preapproved field of study. Majors are encouraged to incorporate a study abroad experience into their programs.

### **Program Delivery**

This program is available:

- via classroom (the majority of instruction is face-to-face)

### **Admission Requirements**

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

#### **Required prerequisites**

##### **Introductory Requirement (1 cr)**

Transfer students with 24 or more credits and current UMD students who change colleges to CLA are exempt from this requirement. New first-year students with 24 or more PSEO credits may request to be waived from this requirement.

[UST 1000](#) - UMD Seminar (1.0 - 2.0 cr)

### **General Requirements**

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A

minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.

8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

## Program Requirements

1. A second field of study, either a minor or another major in one of the following: Anthropology, American Indian Studies, Chinese Area Studies, Communication, French Studies, German Studies, Hispanic Studies, Information Design, Journalism, Latin American Studies, Russian Area Studies, Women, Gender and Sexuality Studies. Cultural Entrepreneurship (CUE) program director approval is required if students wish to minor or major in a field not listed above.

2. Written application to the CUE program director, explaining why the student wants to be admitted to the program and their career goals.

3. The program will also support and strengthen optional study abroad sites currently available such as: Montpellier, Salamanca, St. Petersburg, Worcester, Passau, Potsdam and various sites in China. Students are advised to visit with the CUE program director about how courses abroad may be incorporated into this program.

4. The program encourages students to take internship and field study courses during their junior or senior years. Students are advised to visit with the program director to discuss internship opportunities.

### Business Administration Certificate Core (16 cr)

After the successful completion of this required core, students will receive a Certificate of Business Administration from LSBE. These courses are provided in an online format and can be taken in any order. See class search for variable start dates of courses (1st half, 2nd half or full-term). Up to two of the following courses may be substituted with equivalent classroom classes. For additional changes or course substitutions students must meet with the CUE program director.

[BUS 2100](#) - Fundamentals of Accounting (2.0 cr)

[BUS 2200](#) - Fundamentals of Economics (2.0 cr)

[BUS 2300](#) - Fundamentals of Operations Management (2.0 cr)

[BUS 2400](#) - Fundamentals of Organizational Management (2.0 cr)

[BUS 2500](#) - Fundamentals of Applied Statistics (2.0 cr)

[BUS 2600](#) - Fundamentals of Financial Management (2.0 cr)

[BUS 2700](#) - Fundamentals of Marketing (2.0 cr)

[BUS 2800](#) - Fundamentals of Human Resource Management (2.0 cr)

### Entrepreneurship Core (11-12 cr)

[CUE 1001](#) - Culture Industry and Creative Economy [GLOBAL PER] (3.0 cr)

[CUE 3001](#) - Foundations of Cultural Entrepreneurship I (3.0 cr)

[CUE 3002](#) - Foundations of Cultural Entrepreneurship II (3.0 cr)

#### Take one additional Entrepreneurship Core course:

NOTE: CUE 4096 & 4097 are only offered during the summer term.

[CUE 4001](#) - Entrepreneurial Finance for Creative Industries (3.0 cr)

or [CUE 4002](#) - Managing Cultural Organizations (3.0 cr)

or [CUE 4003](#) - Entrepreneurial Ethics and Values (3.0 cr)

or [CUE 4096](#) - Field Study (2.0 cr)

or [CUE 4097](#) - Internship (2.0 cr)

### Conceptual Competency Core (9 cr)

[CUE 1111](#) - Creative Problem Solving (3.0 cr)

[CUE 3101](#) - Introduction to Design Thinking and Conceptual Competencies (3.0 cr)

[GEOG 2313](#) - Economic Geography [LE CAT6, SOC SCI] (3.0 cr)

or [GEOG 3461](#) - Geography of Global Resources [SUSTAIN] (3.0 cr)

or CUE 32xx

or CUE 42xx

### Foreign Languages and Cultural Literacy Core (3-24 cr)

Through advisement and approval by the director students select one of the following options:

A) Complete the advanced level course & a 3xxx level course of a Foreign Language taught in the language from: AMIN, CHIN, FR, GER, RUSS, SPAN.

B) Complete the intermediate level sequence in ONE Foreign Language & take TWO Foreign Language courses taught in English.

C) Complete the beginning level sequence in TWO Foreign Languages & take TWO Foreign Language courses taught in English.

Take 3 or more credit(s) from the following:



•Students must complete at least 3 credits to satisfy this requirement. Once one of the above options is completed, students request approval from the director and submit the 'CUE lang/culture form' found here: [z.umn.edu/umdclaprograms](http://z.umn.edu/umdclaprograms)

**Advanced Writing Requirement (3 cr)**  
WRIT 31xx - Adv Writing (3 cr)

## Duluth Campus

# English B.A.

English

## College of Liberal Arts

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 120
- Required credits within the major: 41 to 66
- Degree: Bachelor of Arts

The English major develops student knowledge and appreciation of the literary arts within the English, Irish, and American traditions. Depending on career goals, majors should choose one of two tracks: literary studies or literature, language, and culture. Students may major or minor in programs leading to the B.A. or the B.A.A. teaching degree.

The English major is a liberal arts rather than a professional degree. That is, the course of studies does not prepare students for one specific vocation but instead provides them with the basic knowledge and skills that they can use in any number of professional fields. English majors and minors develop the skills in analysis and communication (oral and written) that make them very attractive to employers today.

While a few UMD English graduates each year go on to teach English at various levels or attend graduate school in English, the great majority find employment in other fields. Recent graduates of UMD's English program have been accepted in various courses of graduate study including law, medicine, business, theology, and interdisciplinary studies. Other graduates have accepted positions as health claims representative, editor, sales consultant, office manager, journalist, administrative assistant, writer, Air National Guard, property manager, bookkeeper, and assistant account executive.

Honors Requirements: Candidates must have a 3.20 overall GPA and 3.40 in the major. An honors paper or creative writing project must be completed in a 5xxx course or through independent study. Completed projects and papers must be approved by a sponsoring faculty member and the department honors committee. Students who wish to qualify for honors must contact the department at least one semester before graduation.

## Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

## Admission Requirements

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

### Required prerequisites

#### Introductory Requirement (1 cr)

Transfer students with 24 or more credits and current UMD students who change colleges to CLA are exempt from this requirement. New first-year students with 24 or more PSEO credits may request to be waived from this requirement.

[UST 1000](#) - UMD Seminar (1.0 - 2.0 cr)

## General Requirements

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.

7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

## Program Requirements

1. A second field of study (either a minor or another major) is required except for the literature, language and culture track.
2. Tracks must be declared through the CLA Advising and Academic Services.
3. Advanced writing requirement met by taking courses listed within the major requirements.

## Program Sub-plans

Students are required to complete one of the following sub-plans.

### Literary Studies

This track (41-42 credits) offers a traditional combination of survey, genre, major figure, and linguistic courses focusing on the study of literature as a humanities discipline.

#### Literary Studies Core Courses (25 cr)

- ENGL 3223 - Shakespeare [LE CAT9, HUMANITIES] (4.0 cr)
- ENGL 3501 - British Literature I [HUMANITIES] (4.0 cr)
- ENGL 3502 - British Literature II [HUMANITIES] (4.0 cr)
- ENGL 3563 - American Literature I [HUMANITIES, CDIVERSITY] (4.0 cr)
- ENGL 3564 - American Literature II [HUMANITIES, CDIVERSITY] (4.0 cr)
- ENGL 3906 - Methods of Literary Study (4.0 cr)
- ENGL 4909 - Senior Portfolio (1.0 cr)

#### Electives (15-16 cr)

Take one course from four of the six areas. ENGL 3195 and 5595 Special Topics may apply to an area with departmental approval. Take 4 or more course(s) from the following:

##### American Period

Take 0 - 1 course(s) from the following:

- ENGL 3573 - Survey of African American Literature [HUMANITIES, CDIVERSITY] (4.0 cr)
- ENGL 5572 - American Renaissance (4.0 cr)
- ENGL 5574 - Studies in American Literature to 1914 (4.0 cr)
- ENGL 5575 - Studies in American Literature after 1914 (4.0 cr)
- ENGL 5665 - The American Literary Marketplace (4.0 cr)

##### British Period

Take 0 - 1 course(s) from the following:

- ENGL 5533 - Studies in English Literature Before 1800 (4.0 cr)
- ENGL 5541 - Restoration and 18th-Century Literature (4.0 cr)
- ENGL 5561 - English Romanticism (4.0 cr)
- ENGL 5562 - Victorian Literature (4.0 cr)
- ENGL 5566 - Irish Literary Revival (4.0 cr)
- ENGL 5661 - Publishing the Middle Ages (4.0 cr)
- ENGL 5662 - The Making of a Major Author: The Scholarly Edition in 17th- and 18th-Century England (4.0 cr)
- ENGL 5663 - Readers and the History of Books (4.0 cr)
- ENGL 5664 - Small Presses, Little Magazines, and Modernism (4.0 cr)

##### World Literatures

Take 0 - 1 course(s) from the following:

- ENGL 3574 - Reconstituting the Past in African Diaspora Literature (4.0 cr)
- ENGL 5584 - Mapping Postcolonial Literature (4.0 cr)

##### Genre

Take 0 - 1 course(s) from the following:

- ENGL 3333 - Children's Literature: Texts and Contexts (4.0 cr)
- ENGL 3411 - The Modern Short Story (4.0 cr)
- ENGL 4375 - Drama (4.0 cr)
- ENGL 5375 - Modern Poetry (4.0 cr)
- ENGL 5471 - The Novella (4.0 cr)
- ENGL 5581 - American Novel I (4.0 cr)

- ENGL 5582 - American Novel II (4.0 cr)
- ENGL 5583 - British Novel (4.0 cr)

•**Major Figure**

Take 0 - 1 course(s) from the following:

- ENGL 5222 - Shakespeare (4.0 cr)
- ENGL 5312 - Chaucer (4.0 cr)
- ENGL 5331 - Milton (4.0 cr)
- ENGL 5577 - Major American Authors (4.0 cr)

•**Linguistics**

Take 0 - 1 course(s) from the following:

- ENGL 4802 - English Language for Educators (4.0 cr)
- ENGL 5821 - History of the English Language (4.0 cr)
- LING 3101 - Introduction to Phonology (3.0 cr)
- LING 3102 - Introduction to Syntax (3.0 cr)

**Literature, Language and Culture**

This flexible, interdisciplinary track (60-66 credits) allows students to design a combined major and minor that examines the intersections of literature, language, culture, and power. This track does not require a minor.

**Literature, Language and Culture Core Courses (5 cr)**

ENGL 3906 - Methods of Literary Study (4.0 cr)

ENGL 4909 - Senior Portfolio (1.0 cr)

**Cluster I: English (36 cr)**

**English Course List A:**

Take 4 courses for 16 credits.

- ENGL 1582 - Introduction to World Literatures [LE CAT9, LEIP CAT09, HUMANITIES, GLOBAL PER] (4.0 cr)
- or ENGL 1583 - Introductory Study of Major Topics in Contemporary African Literature [LE CAT9, LEIP CAT09, HUMANITIES, GLOBAL PER] (4.0 cr)
- or ENGL 2571 - Contemporary Literature [LE CAT9, HUMANITIES, GLOBAL PER] (4.0 cr)
- or ENGL 2581 - Women Writers [LE CAT9, LECD CAT09, HUMANITIES] (4.0 cr)
- or ENGL 3333 - Children's Literature: Texts and Contexts (4.0 cr)
- or ENGL 3411 - The Modern Short Story (4.0 cr)
- or ENGL 3573 - Survey of African American Literature [HUMANITIES, CDIVERSITY] (4.0 cr)
- or ENGL 3574 - Reconstituting the Past in African Diaspora Literature (4.0 cr)

**English Course List B:**

Take 5 courses for at least 20 credits at the ENGL 4xxx-5xxx level. The following courses do not count toward this requirement:

ENGL 4097, 4802, 4902, 4909, 4922, 4931, 5097, 5591, 5802, 5902.

- ENGL 4292 - Literature into Film (4.0 cr)
- or ENGL 4375 - Drama (4.0 cr)
- or ENGL 5116 - Advanced Writing of Fiction (4.0 cr)
- or ENGL 5122 - Advanced Writing of Poetry (4.0 cr)
- or ENGL 5222 - Shakespeare (4.0 cr)
- or ENGL 5312 - Chaucer (4.0 cr)
- or ENGL 5331 - Milton (4.0 cr)
- or ENGL 5375 - Modern Poetry (4.0 cr)
- or ENGL 5444 - Childhood in Literature, History and Culture (4.0 cr)
- or ENGL 5471 - The Novella (4.0 cr)
- or ENGL 5533 - Studies in English Literature Before 1800 (4.0 cr)
- or ENGL 5541 - Restoration and 18th-Century Literature (4.0 cr)
- or ENGL 5561 - English Romanticism (4.0 cr)
- or ENGL 5562 - Victorian Literature (4.0 cr)
- or ENGL 5566 - Irish Literary Revival (4.0 cr)
- or ENGL 5572 - American Renaissance (4.0 cr)
- or ENGL 5574 - Studies in American Literature to 1914 (4.0 cr)
- or ENGL 5575 - Studies in American Literature after 1914 (4.0 cr)
- or ENGL 5577 - Major American Authors (4.0 cr)
- or ENGL 5581 - American Novel I (4.0 cr)
- or ENGL 5582 - American Novel II (4.0 cr)
- or ENGL 5583 - British Novel (4.0 cr)
- or ENGL 5584 - Mapping Postcolonial Literature (4.0 cr)
- or ENGL 5595 - Special Topics: (Various Titles to be Assigned) (1.0 - 5.0 cr)
- or ENGL 5661 - Publishing the Middle Ages (4.0 cr)
- or ENGL 5662 - The Making of a Major Author: The Scholarly Edition in 17th- and 18th-Century England (4.0 cr)
- or ENGL 5663 - Readers and the History of Books (4.0 cr)
- or ENGL 5664 - Small Presses, Little Magazines, and Modernism (4.0 cr)

or ENGL 5665 - The American Literary Marketplace (4.0 cr)  
or ENGL 5821 - History of the English Language (4.0 cr)

**Cluster II: Communication & Writing (9-12 cr)**

Take one course from the 'communication', 'writing', and '4xxx-5xxx level course' areas. A minor in professional writing fulfills this cluster.

**Communication**

Take one course from this area.

COMM 1112 - Public Speaking [LE CAT3, COMM & LAN] (3.0 cr)  
or COMM 2101 - Foundations of Mass Communication [LE CAT8, SOC SCI] (3.0 cr)  
or COMM 3535 - Intercultural Communication [LE CAT6, LEIP CAT06, CDIVERSITY] (4.0 cr)  
or COMM 3215 - Conflict Management (3.0 cr)  
or COMM 3505 - Media Communications (3.0 cr)

**Writing**

Take one course from this area.

ENGL 3115 - Writing Fiction (4.0 cr)  
or ENGL 3121 - Writing Poetry (4.0 cr)  
or WRIT 3100 - Advanced Writing: Language and Literature (3.0 cr)  
or WRIT 3110 - Advanced Writing: Arts and Letters (3.0 cr)  
or WRIT 3121 - Advanced Writing: Business and Organizations (3.0 cr)  
or WRIT 3140 - Advanced Writing: Human Services (3.0 cr)  
or WRIT 3150 - Advanced Writing: Science (3.0 cr)  
or WRIT 3160 - Advanced Writing: Social Sciences (3.0 cr)

**One 4xxx-5xxx level course.**

Take one course from this area.

COMM 4500 - History of Rhetoric (3.0 cr)  
or COMM 4505 - Media Theory and Research (3.0 cr)  
or ENGL 4802 - English Language for Educators (4.0 cr)  
or WRIT 4230 - Web Design and Digital Culture (3.0 cr)  
or WRIT 4250 - New Media Writing (3.0 cr)  
or WRIT 4260 - Visual Rhetoric and Culture (3.0 cr)

**Cluster III: Culture Studies (9-12 cr)**

Take 3 courses to satisfy this area. One course must be taken from the 'culture studies electives', one course from the '4xxx-5xxx level course' area, and a third course from either area.

**Culture Studies electives**

At least one course must be taken from this area.

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

- AMIN 1010 - American Indian Experience to 1900 [LE CAT7, LECD CAT07, CDIVERSITY] (3.0 cr)
- AMIN 1020 - American Indian Experiences: 1900-present [LE CAT7, LECD CAT07, HUMANITIES, CDIVERSITY] (3.0 cr)
- AMIN 1606 - Introduction to American Indian Literature [LE CAT9, HUMANITIES, CDIVERSITY] (3.0 cr)
- AMIN 2015 - Ojibwe History and Culture [SUSTAIN] (3.0 cr)
- AMIN 3206 - Federal Indian Policy [LE CAT8, LECD CAT08, SOC SCI, CDIVERSITY] (3.0 cr)
- AMIN 3620 - Ojibwe Literatures: Sovereignty and Survivance [CDIVERSITY] (3.0 cr)
- AMIN 3660 - American Indian Novel [HUMANITIES, CDIVERSITY] (3.0 cr)
- ANTH 3628 - Women in Cross-Cultural Perspective (3.0 cr)
- CRIM 2311 - Criminological Theory (4.0 cr)
- CRIM 3338 - Sociology of Gangs (3.0 cr)
- ECON 3031 - History of Economic Thought [LE CAT7] (3.0 cr)
- FR 2315 - French Cinema [LE CAT9, LEIP CAT09, HUMANITIES] (4.0 cr)
- GEOG 1304 - Human Geography [LE CAT6, LECD CAT06, SOC SCI] (3.0 cr)
- GEOG 3334 - Urban Geography (3.0 cr)
- GEOG 3481 - Urban Ecology (3.0 cr)
- GER 2402 - Germany Today [LE CAT8, LEIP CAT08, HUMANITIES] (3.0 cr)
- HIST 2345 - Science and Society: 1500 to Present [LE CAT7, HUMANITIES] (4.0 cr)
- SOC 3831 - Organizations and Society (4.0 cr)
- SPAN 2540 - Latino Literatures and Cultures [LE CAT8, LECD CAT08, HUMANITIES, CDIVERSITY] (4.0 cr)
- SW 1619 - Race, Class, and Gender in the United States [LE CAT8, LECD CAT08, SOC SCI, CDIVERSITY] (3.0 cr)
- WRIT 1506 - Literacy, Technology and Society [LE CAT7, HUMANITIES] (3.0 cr)
- WS 2101 - Women, Race, and Class [LE CAT8, LECD CAT08, SOC SCI, CDIVERSITY] (3.0 cr)
- WS 3001 - Gender Relations in the Global South [GLOBAL PER] (3.0 cr)
- WS 3002 - Latin American Women: Culture and Politics (3.0 cr)
- WS 3150 - Women-Identified Culture [CDIVERSITY] (3.0 cr)

**One 4xxx or 5xxx level course.**

At least one course must be taken from this area.

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

- AMIN 4630 - American Indians and the Media [HUMANITIES, CDIVERSITY] (3.0 cr)



- [ANTH 4621](#) - Myth and Sacred Symbols (3.0 cr)
- [ANTH 4623](#) - Anthropology and Contemporary Human Problems (3.0 cr)
- [EDUC 4234](#) - Science, Technology, and Society [SUSTAIN] (3.0 cr)
- [GEOG 4393](#) - Political Geography (3.0 cr)
- [GEOG 4803](#) - Geographic Thought (3.0 cr)
- [SOC 4947](#) - Sociology of Gender Identities and Systems (3.0 cr)
- [SOC 4949](#) - Race and Ethnic Relations (3.0 cr)



## Duluth Campus

# English Minor

English

## College of Liberal Arts

- Program Type: Undergraduate minor related to major
- Requirements for this program are current for Fall 2016
- Required credits in this minor: 20

The English minor introduces students to a wide range of American, British, and world literatures.

## Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

## Minor Requirements

### English Core (4 cr)

Take the following course:

[ENGL 1582](#) - Introduction to World Literatures [LE CAT9, LEIP CAT09, HUMANITIES, GLOBAL PER] (4.0 cr)

### English Survey Course (4 cr)

Only one additional survey course may be applicable to an elective area.

Take no more than 1 course(s) from the following:

- [ENGL 3501](#) - British Literature I [HUMANITIES] (4.0 cr)
- [ENGL 3502](#) - British Literature II [HUMANITIES] (4.0 cr)
- [ENGL 3563](#) - American Literature I [HUMANITIES, CDIVERSITY] (4.0 cr)
- [ENGL 3564](#) - American Literature II [HUMANITIES, CDIVERSITY] (4.0 cr)

### English Electives at the 2xxx-3xxx level (4 cr)

Most ENGL 2xxx-3xxx level courses apply here.

Take no more than 1 course(s) from the following:

- [ENGL 2571](#) - Contemporary Literature [LE CAT9, HUMANITIES, GLOBAL PER] (4.0 cr)
- [ENGL 2581](#) - Women Writers [LE CAT9, LECD CAT09, HUMANITIES] (4.0 cr)
- [ENGL 2922](#) - The Art of the Memoir: Reading and Writing Memoir (4.0 cr)
- [ENGL 3115](#) - Writing Fiction (4.0 cr)
- [ENGL 3121](#) - Writing Poetry (4.0 cr)
- [ENGL 3223](#) - Shakespeare [LE CAT9, HUMANITIES] (4.0 cr)
- [ENGL 3333](#) - Children's Literature: Texts and Contexts (4.0 cr)
- [ENGL 3411](#) - The Modern Short Story (4.0 cr)
- [ENGL 3573](#) - Survey of African American Literature [HUMANITIES, CDIVERSITY] (4.0 cr)
- [ENGL 3574](#) - Reconstituting the Past in African Diaspora Literature (4.0 cr)
- [ENGL 3906](#) - Methods of Literary Study (4.0 cr)

### English Electives at the 4xxx-5xxx level (8 cr)

Most ENGL 4xxx-5xxx level courses apply here. This excludes ENGL 4097/5097-Internship and ENGL 4931-Practicum.

Take 8 or more credit(s) from the following:

- [ENGL 4292](#) - Literature into Film (4.0 cr)
- [ENGL 4375](#) - Drama (4.0 cr)
- [ENGL 4802](#) - English Language for Educators (4.0 cr)
- [ENGL 4902](#) - Teaching Language, Cognition, and Writing (4.0 cr)
- [ENGL 4909](#) - Senior Portfolio (1.0 cr)
- [ENGL 4922](#) - Teaching Literature and Communication (4.0 cr)
- [ENGL 5116](#) - Advanced Writing of Fiction (4.0 cr)
- [ENGL 5122](#) - Advanced Writing of Poetry (4.0 cr)
- [ENGL 5222](#) - Shakespeare (4.0 cr)
- [ENGL 5312](#) - Chaucer (4.0 cr)
- [ENGL 5331](#) - Milton (4.0 cr)
- [ENGL 5375](#) - Modern Poetry (4.0 cr)
- [ENGL 5444](#) - Childhood in Literature, History and Culture (4.0 cr)



- ENGL 5471 - The Novella (4.0 cr)
- ENGL 5533 - Studies in English Literature Before 1800 (4.0 cr)
- ENGL 5541 - Restoration and 18th-Century Literature (4.0 cr)
- ENGL 5561 - English Romanticism (4.0 cr)
- ENGL 5562 - Victorian Literature (4.0 cr)
- ENGL 5566 - Irish Literary Revival (4.0 cr)
- ENGL 5572 - American Renaissance (4.0 cr)
- ENGL 5574 - Studies in American Literature to 1914 (4.0 cr)
- ENGL 5575 - Studies in American Literature after 1914 (4.0 cr)
- ENGL 5577 - Major American Authors (4.0 cr)
- ENGL 5581 - American Novel I (4.0 cr)
- ENGL 5582 - American Novel II (4.0 cr)
- ENGL 5583 - British Novel (4.0 cr)
- ENGL 5584 - Mapping Postcolonial Literature (4.0 cr)
- ENGL 5591 - Independent Study (1.0 - 5.0 cr)
- ENGL 5595 - Special Topics: (Various Titles to be Assigned) (1.0 - 5.0 cr)
- ENGL 5661 - Publishing the Middle Ages (4.0 cr)
- ENGL 5662 - The Making of a Major Author: The Scholarly Edition in 17th- and 18th-Century England (4.0 cr)
- ENGL 5663 - Readers and the History of Books (4.0 cr)
- ENGL 5664 - Small Presses, Little Magazines, and Modernism (4.0 cr)
- ENGL 5665 - The American Literary Marketplace (4.0 cr)
- ENGL 5802 - English Language for Educators (4.0 cr)
- ENGL 5821 - History of the English Language (4.0 cr)
- ENGL 5902 - Teaching Language, Cognition, and Writing (4.0 cr)

### **Duluth Campus**

## **Environment and Sustainability B.A.**

*Geography, Urban, Environmental & Sustain Studies*

### **College of Liberal Arts**

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 120
- Required credits within the major: 77 to 80
- This program requires summer terms.
- Degree: Bachelor of Arts

The environment and sustainability program provides a sound interdisciplinary grounding in the natural sciences, social sciences, and the humanities, producing graduates who understand and think creatively about complex global environmental and social problems. The curriculum encourages multidisciplinary thinking and problem-solving skills at the nexus of the natural sciences and social sciences. Coursework develops skills in research, writing, creative thinking, and sound policy making, as students draw upon a range of disciplines to understand and solve specific issues and problems.

Honors Requirements: Candidates must be majors with a 3.00 overall GPA and 3.30 in the major. Students must complete an honors project supervised by a faculty member and approved by the program director. In some cases, the project may develop out of the environment and sustainability internship. Students must notify the director of their intent to participate in the honors program by the end of the first week of the semester of graduation and the completed project must be approved by the faculty adviser and the director at least 30 days before the end of the term. The project is presented orally or by exhibition.

### **Program Delivery**

This program is available:

- via classroom (the majority of instruction is face-to-face)

### **Admission Requirements**

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

#### **Required prerequisites**

##### **Introductory Requirement (1 cr)**

Transfer students with 24 or more credits and current UMD students who change colleges to CLA are exempt from this requirement.

New first-year students with 24 or more PSEO credits may request to be waived from this requirement.

[UST 1000](#) - UMD Seminar (1.0 - 2.0 cr)

### **General Requirements**

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

## Program Requirements

### Environment and Sustainability Core (19 cr)

ES 4097 is only offered during the summer term.

- ES 1001 - Introductory Seminar (2.0 cr)
- ES 2803 - Issues in Global Ecology [LE CAT5, LEIP CAT05, SUSTAIN] (3.0 cr)
- ES 3100 - Sustainable Food Systems [SUSTAIN] (3.0 cr)
- ES 3500 - Ecological Economics (3.0 cr)
- ES 4010 - Seminar (4.0 cr)
- ES 4090 - Internship Preparation (1.0 cr)
- ES 4097 - Internship (3.0 cr)

### Natural Science Core (17 cr)

- BIOL 1011 - General Biology I [LE CAT4, NAT SCI] (5.0 cr)
- BIOL 1012 - General Biology II [SUSTAIN] (5.0 cr)
- BIOL 2801 - General Ecology (3.0 cr)
- GEOG 1414 - Physical Geography [LE CAT4, NAT SCI, SUSTAIN] (4.0 cr)  
or GEOL 1110 - Geology and Earth Systems [LE CAT4, NAT SCI, SUSTAIN] (4.0 cr)

### Social Science Core (22-23 cr)

#### Economics

- ECON 1023 - Principles of Economics: Micro [LE CAT6, SOC SCI] (3.0 cr)
- ECON 3721 - Natural Resource and Energy Economics (3.0 cr)  
or ECON 3777 - Environmental Economics (3.0 cr)

#### Geography

- GIS 3563 - Geographic Information Science I: Theory and Analysis (4.0 cr)
- GEOG 3335 - Urban Planning (3.0 cr)  
or GEOG 4451 - The Geography of Soils (4.0 cr)

#### Political Science

- POL 1011 - American Government and Politics [LE CAT6, SOC SCI] (3.0 cr)
- POL 3080 - Environment and Politics (3.0 cr)  
or POL 3170 - Political Interest Groups and Individuals (3.0 cr)  
or POL 3570 - Politics of Developing Nations (3.0 cr)

#### Sociology

- SOC 3901 - Social Change and Social Policy (3.0 cr)  
or SOC 4860 - Environmental Sociology [SUSTAIN] (3.0 cr)

### Supporting Core (7-9 cr)

#### Math Requirement

Take no more than 1 course(s) from the following:

- MATH 1160 - Finite Mathematics and Introduction to Calculus [LE CAT2, LOGIC & QR] (5.0 cr)
- MATH 1250 - Precalculus Analysis [LE CAT2, LOGIC & QR] (4.0 cr)
- MATH 1290 - Calculus for the Natural Sciences [LE CAT2, LOGIC & QR] (5.0 cr)
- MATH 1296 - Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)
- MATH 1297 - Calculus II [LOGIC & QR] (5.0 cr)
- MATH 1596 - Honors: Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)
- MATH 1597 - Honors: Calculus II [LOGIC & QR] (5.0 cr)

#### Statistical Requirement

STAT 2411 preferred; if GIS 4585 or SOC 2155 is taken, neither can apply as an elective course.

Take no more than 1 course(s) from the following:

- ECON 2030 - Applied Statistics for Business and Economics [LOGIC & QR] (3.0 cr)
- ECON 3030 - Econometrics I (3.0 cr)
- GIS 4585 - Applied Statistics in GIS (4.0 cr)
- POL 2700 - Methodology and Analysis [LOGIC & QR] (4.0 cr)
- PSY 3020 - Statistical Methods (4.0 cr)
- SOC 2155 - Introduction to Research Methods and Analysis (4.0 cr)
- STAT 2411 - Statistical Methods [LE CAT2, LOGIC & QR] (3.0 cr)
- STAT 3xxx
- STAT 4xxx

### Environment and Sustainability Electives (8 cr)

Students propose at least three elective courses above the 2xxx level; courses already taken may or may not be accepted. Since the major does not require a second field of study, only two proposed courses can be applicable to a second major or minor. Students must consult with their adviser before selecting their elective courses.



Take 3 or more course(s) from the following:  
Proposal form found here: [z.umn.edu/umdcclaprograms](http://z.umn.edu/umdcclaprograms)  
•(ES proposed course)

**Advanced Writing Requirement (3 cr)**

Any WRIT 31xx course will satisfy this requirement.  
WRIT 31xx-Adv Writing (3 cr)



### **Duluth Campus**

## **Environment and Sustainability Minor**

*Geography, Urban, Environmental & Sustain Studies*

### **College of Liberal Arts**

- Program Type: Undergraduate minor related to major
- Requirements for this program are current for Fall 2016
- Required credits in this minor: 24

The environment and sustainability minor complements any degree program concerned with the natural world and social world and how one impacts the other. The focus is the impact of humans on the environment. The minor augments degrees in anthropology, biology, education, environmental education, geography, geology, law, philosophy, political science, and sociology.

### **Program Delivery**

This program is available:

- via classroom (the majority of instruction is face-to-face)

### **Minor Requirements**

#### **Environment and Sustainability Core (15 cr)**

- ES 1001 - Introductory Seminar (2.0 cr)
- ES 2803 - Issues in Global Ecology [LE CAT5, LEIP CAT05, SUSTAIN] (3.0 cr)
- ES 3100 - Sustainable Food Systems [SUSTAIN] (3.0 cr)
- ES 3500 - Ecological Economics (3.0 cr)
- ES 4010 - Seminar (4.0 cr)

#### **Electives (9 cr)**

Students propose at least three different elective courses above the 2xxx level. Courses already taken may or may not be accepted. One proposed course may be applicable to a complementary major, minor or certificate. Students must consult with an ES adviser before selecting their elective courses.

Take 3 or more course(s) totaling 9 or more credit(s) from the following:

ES Elective Proposal form found here: [z.umn.edu/umdclaprograms](http://z.umn.edu/umdclaprograms)

- (Student proposes courses)

## Duluth Campus

### French Studies B.A.

Foreign Languages & Literatures

#### College of Liberal Arts

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 120
- Required credits within the major: 27 to 47
- Study abroad will be strongly encouraged for French Studies majors in a variety of sites, to be determined by student interest and focus, throughout the French-speaking world. Our program will work to facilitate the achievement of University of Minnesota system-wide goals, which call for 50 percent of students to participate in a study abroad experience.
- Degree: Bachelor of Arts

This program prepares students to thrive as globally competent citizens through an in-depth encounter with French and Francophone cultures and literature. Majors develop language proficiency and communication skills as they study literature, films, and cultures of the French-speaking world. Such studies have long been a core discipline in the liberal arts due to the rich intellectual, political, artistic, technological, and scientific achievements of a culture whose language is spoken in many parts of the world. In view of northeastern Minnesota's extensive French heritage and proximity to bilingual Canada, the field of French studies offers local as well as global perspectives that can be applied in a wide variety of career choices.

### Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

### Admission Requirements

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

#### Required prerequisites

##### Introductory Requirement (1 cr)

Transfer students with 24 or more credits, and current UMD students who change colleges to CLA, are exempt from this requirement. New first-year students with 24 or more PSEO credits may request a waiver from this requirement.

[UST 1000](#) - UMD Seminar (1.0 - 2.0 cr)

### General Requirements

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

### Program Requirements

1. A second field of study (either a minor or another major).

2. Two elective courses applicable to the major must be taken through UMD.
3. Study abroad is encouraged for all students and the department makes every effort to facilitate such experiences.
4. Oral proficiency exam.

Note: Students pursuing both the B.A. and the B.A.A. degrees in French must satisfactorily complete 12 non-overlapping upper division credits of French electives over and above the requirements for the B.A.A. to receive both degrees.

#### Core Courses (0-20 cr)

Students with language study may be exempt from some core requirements and should consult the department about placement. Students usually complete the advanced French Studies language course before other upper-division courses that emphasize literature and culture.

- FR 1101 - Beginning French I [LE CAT3, COMM & LAN] (4.0 cr)
- FR 1102 - Beginning French II [LE CAT3, COMM & LAN] (4.0 cr)
- FR 1201 - Intermediate French I [LE CAT3, COMM & LAN] (4.0 cr)
- FR 1202 - Intermediate French II [LE CAT3, LEIP CAT03, COMM & LAN] (4.0 cr)
- FR 2301 - Advanced French [LE CAT3, LEIP CAT03, COMM & LAN] (4.0 cr)

#### Upper Division Electives (23 cr)

Most FR 3xxx-4xxx courses apply here. To enroll in these courses a student must have earned a grade of C or better in 2301, or be concurrently enrolled in 2301 or obtain instructor consent. With advisor consent, some upper-division French courses may be transferred and/or earned abroad, but at least two courses must be taken through UMD.

Take 23 or more credit(s) from the following:

- FORS 3178 - FR 3040 Language and Culture in France (6.0 cr)
- FR 3302 - Advanced French Composition and Conversation [COMM & LAN] (4.0 cr)
- FR 3310 - Survey: Essays, Short Stories, Poetry in the French Language [HUMANITIES] (4.0 cr)
- FR 3591 - Independent Study (1.0 - 4.0 cr)
- FR 3905 - Autobiography in French Literature and Cinema [HUMANITIES] (4.0 cr)
- FR 4018 - Studies in Francophone Cultures and Literature (LE CAT9, LEIP CAT09) [HUMANITIES, GLOBAL PER] (4.0 cr)
- FR 4095 - Special Topics (Various Titles to be Assigned) (4.0 cr)
- FR 4412 - Contemporary French Culture and Society [HUMANITIES, GLOBAL PER] (4.0 cr)
- FR 4422 - 20th-Century Novel [HUMANITIES] (4.0 cr)
- FR 4472 - French Classical Literature [HUMANITIES] (4.0 cr)
- FR 4482 - Voltaire and Rousseau in English (4.0 cr)
- FR 4492 - 19th-Century Novel [HUMANITIES] (4.0 cr)

#### •Optional Elective

One of the following courses (taught in English) applies to the "23 elective credits." With prior approval from an advisor, selected courses may be taken in another department or program if related to the major.

Take 0 - 1 course(s) from the following:

- ARTH 2300 - The City as a Work of Art [LE CAT9, LEIP CAT09, HUMANITIES] (3.0 cr)
- ARTH 3340 - Baroque and Rococo Art (3.0 cr)
- ARTH 3360 - European Art in an Age of Revolution (3.0 cr)
- ARTH 3361 - European Art: Impressionism and Post-Impressionism (3.0 cr)
- ARTH 3370 - European Art, 1900-1945 (3.0 cr)
- ARTH 4491 - Directed Study in 19th- and 20th-Century European Art (1.0 - 4.0 cr)
- ARTH 5191 - Directed Study in Ancient and Medieval Art (1.0 - 3.0 cr)
- FR 2315 - French Cinema [LE CAT9, LEIP CAT09, HUMANITIES] (4.0 cr)
- HIST 3243 - Europe in Crisis in the 20th Century (4.0 cr)
- HIST 3257 - Modern France (4.0 cr)
- HIST 3615 - Modern Africa (4.0 cr)
- HIST 3616 - Society and Culture in 20th-Century Africa (4.0 cr)
- LANG 2050 - The Digital Humanities: Language as Interface [HUMANITIES] (4.0 cr)
- POL 3517 - Western European Political Systems (4.0 cr)

#### Advanced Writing Requirement (3 cr)

WRIT 3100 is recommended. Any WRIT 31xx course is applicable to the major.

WRIT 31xx - Adv Writing (3 cr)

## Duluth Campus

# French Studies Minor

Foreign Languages & Literatures

## College of Liberal Arts

- Program Type: Undergraduate minor related to major
- Requirements for this program are current for Fall 2016
- Required credits in this minor: 12 to 32
- Study abroad will be strongly encouraged, to be determined by student interest and focus, throughout the French-speaking world. Our program will work to facilitate the achievement of University of Minnesota system-wide goals, which call for 50 percent of students to participate in a study abroad experience.

The French Studies minor complements any liberal arts degree. French has been the language of a major world culture for centuries and is the traditional language of the arts and philosophy. As global commerce and communication become the norm, French shares status with English as one of the two official languages of the European community and provides a solid basis for careers in business, law, human services, and diplomacy.

## Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

## Minor Requirements

### Core Courses (0-20 cr)

Students with previous language study may be exempt from some core requirements and should consult the department about placement.

- FR 1101 - Beginning French I [LE CAT3, COMM & LAN] (4.0 cr)
- FR 1102 - Beginning French II [LE CAT3, COMM & LAN] (4.0 cr)
- FR 1201 - Intermediate French I [LE CAT3, COMM & LAN] (4.0 cr)
- FR 1202 - Intermediate French II [LE CAT3, LEIP CAT03, COMM & LAN] (4.0 cr)
- FR 2301 - Advanced French [LE CAT3, LEIP CAT03, COMM & LAN] (4.0 cr)

### Electives (12 cr)

Most FR 3xxx-4xxx courses apply here. To enroll in these courses, a student must have earned a grade of C or better in 2301, or be concurrently enrolled in 2301, or have instructor's consent. Select French courses beyond FR 2301. With advisor's consent, courses taken abroad may count toward the minor.

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

- [FORS 3178](#) - FR 3040 Language and Culture in France (6.0 cr)
- [FR 2315](#) - French Cinema [LE CAT9, LEIP CAT09, HUMANITIES] (4.0 cr)
- [FR 3302](#) - Advanced French Composition and Conversation [COMM & LAN] (4.0 cr)
- [FR 3310](#) - Survey: Essays, Short Stories, Poetry in the French Language [HUMANITIES] (4.0 cr)
- [FR 3591](#) - Independent Study (1.0 - 4.0 cr)
- [FR 3905](#) - Autobiography in French Literature and Cinema [HUMANITIES] (4.0 cr)
- [FR 4018](#) - Studies in Francophone Cultures and Literature (LE CAT9, LEIP CAT09) [HUMANITIES, GLOBAL PER] (4.0 cr)
- [FR 4095](#) - Special Topics (Various Titles to be Assigned) (4.0 cr)
- [FR 4412](#) - Contemporary French Culture and Society [HUMANITIES, GLOBAL PER] (4.0 cr)
- [FR 4422](#) - 20th-Century Novel [HUMANITIES] (4.0 cr)
- [FR 4472](#) - French Classical Literature [HUMANITIES] (4.0 cr)
- [FR 4482](#) - Voltaire and Rousseau in English (4.0 cr)
- [FR 4492](#) - 19th-Century Novel [HUMANITIES] (4.0 cr)

### Duluth Campus

## Geographic Information Science B.A.

*Geography, Urban, Environmental & Sustain Studies*

### College of Liberal Arts

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 120
- Required credits within the major: 52 to 57
- Degree: Bachelor of Arts

The core of the Geographic Information Science major is the study and use of geographic information systems (GIS). Central to this program are the theoretical and applied fundamentals of the collection, management, analysis, and representation of spatial data. The program builds on this core by exploring both traditional and novel methods for geo-visualization and by exploring applications of GIS to environmental, resource, and policy/management issues. Methods include teaching various remote sensing technologies used to collect and classify remotely sensed data, critically discussing the implications of geo-spatial technologies on individuals and society, and demonstrating how geo-spatial technologies are used effectively in urban and regional planning processes. Students also learn about GIS project management and research process, professional ethics, and presentation. The major blends well with other majors such as anthropology, biology, chemistry, computer science, criminology, engineering, environment and sustainability, geography, geology, history, mathematics, political science, sociology, statistics, and urban and regional studies. Students are encouraged to double major.

Honors Requirements: Candidates must have a 3.00 overall GPA and a 3.30 in the major. An honors project must be completed in GEOG 4999. Students who wish to have such work considered for honors must complete a departmental form prior to the second semester of their senior year. Completed projects must be approved by the sponsoring faculty member and other members of the department.

### Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

### Admission Requirements

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

#### Required prerequisites

##### Introductory Requirement (1 cr)

Transfer students with 24 or more credits and current UMD students who change colleges to CLA are exempt from this requirement. New first-year students with 24 or more PSEO credits may request to be waived from this requirement.

[UST 1000](#) - UMD Seminar (1.0 - 2.0 cr)

### General Requirements

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

## Program Requirements

1. A second field or study (either a minor or another major).
2. If students choose to double major in any of the following combinations GIS, GEOG, ES, or URS, they must follow the fall 2012 or later degree requirements for all programs. Following these requirements addresses the overlapping of courses across programs.
3. Students with the GIS major cannot pursue the GIS undergraduate certificate or the GEOG minor (starting fall 2016 for the latter).

### Required Core (30-31 cr)

- GEOG 1414** - Physical Geography [LE CAT4, NAT SCI, SUSTAIN] (4.0 cr)  
*or* **GEOL 1110** - Geology and Earth Systems [LE CAT4, NAT SCI, SUSTAIN] (4.0 cr)  
**GEOG 1202** - World Regional Geography [LE CAT8, LEIP CAT08, GLOBAL PER] (3.0 cr)  
*or* **GEOG 1304** - Human Geography [LE CAT6, LECD CAT06, SOC SCI] (3.0 cr)  
*or* **GEOG 2305** - Geography of Cultural Diversity [CDIVERSITY] (3.0 cr)

And all of the following:

- GEOG 2552** - Introduction to Maps and Geospatial Information [LE CAT2, LOGIC & QR] (3.0 cr)  
**GEOG 3532** - Map Design and Geographic Visualization (4.0 cr)  
**GIS 3580** - Earth Imagery (4.0 cr)  
**GIS 4585** - Applied Statistics in GIS (4.0 cr)  
**GIS 3597** - Internship in GIS (3.0 - 4.0 cr)  
**GEOG 4612** - Field Techniques (4.0 cr)  
**GIS 4909** - Professional Preparedness (1.0 cr)

### Information Science Requirement (4-8 cr)

- GIS 3563** - Geographic Information Science I: Theory and Analysis (4.0 cr)  
**GIS 3564** - Geographic Information Science II: Applied GIS (4.0 cr)  
*or* **Graduate Level Course (consent required)**  
**GIS 4565** - Geographic Information Science Intensive: Theory, Analysis, and Applications (4.0 cr)

### Electives (14 cr)

Take 2 courses for a minimum of 8 credits from GIS 3xxx-5xxx. Additional GIS 2xxx-5xxx courses will apply to the 'Other Electives' area. To fulfill this requirement take courses from the 'Other Electives' area to reach a minimum of 14 elective credits across both sub-requirements. Courses cannot satisfy more than one area within the major.

Take 2 or more course(s) totaling 8 or more credit(s) from the following:

- **GIS 3591** - Independent Study in GIS (1.0 - 3.0 cr)
- **GIS 4533** - Distributed Geographic Information Services: Mobile and Web Based Solutions (4.0 cr)
- **GIS 4586** - Geoprocessing with Python (4.0 cr)
- **GIS 5571** - Geographic Information Science in Urban Analysis (4.0 cr)
- **GIS 5572** - Environmental Application of GIS (4.0 cr)
- **GIS 5573** - GIScience in Regional Sustainability Applications (4.0 cr)
- **GIS 5581** - Digital Image Processing and Analysis (4.0 cr)
- **GIS 5591** - Independent Study in GIS (1.0 - 3.0 cr)

#### •Other Electives

Take 6 or more credit(s) from the following:

- **BIOL 5808** - Landscape Ecology: Theory and Application (3.0 cr)
- **CUE 3101** - Introduction to Design Thinking and Conceptual Competencies (3.0 cr)
- **ES 3100** - Sustainable Food Systems [SUSTAIN] (3.0 cr)
- **ES 3500** - Ecological Economics (3.0 cr)
- **FORS 3167** - GEOG 3167 Cultural Geography of Iceland (3.0 cr)
- **FORS 3205** - GEOG 3205 Mapping in Belize (3.0 cr)
- **FORS 3800** - COMM 3800/GEOG 3800 Grassroots Activism in India (4.0 cr)
- GIS 2xxx
- GIS 3xxx
- GIS 4xxx
- GIS 5xxx
- **SSP 3004** - Tutor Practicum (1.0 - 2.0 cr)
- **ART 1013** - 2-D Digital Design (3.0 cr)  
*or* **ART 1900** - Visual Literacy [LE CAT9, FINE ARTS] (3.0 cr)
- **CS 1121** - Introduction to Programming in Visual BASIC.NET [LE CAT3, LOGIC & QR] (3.0 cr)  
*or* **CS 1141** - Introduction to Programming in C# (3.0 cr)  
*or* **CS 2121** - Introduction to Programming in Java [LE CAT3, LOGIC & QR] (3.0 cr)



- [CS 3211](#) - Database System Concepts (4.0 cr)  
or [CS 4611](#) - Database Management Systems (4.0 cr)

**Advanced Writing Requirement (3 cr)**  
WRIT 31xx - Adv Writing (3 cr)

### Duluth Campus

## Geographic Information Science Certificate

*Geography, Urban, Environmental & Sustain Studies*

### College of Liberal Arts

- Program Type: Undergraduate credit certificate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 19
- Degree: Geographic Information Science Certificate

The certificate in Geographic Information Science has as its core the study and use of geographic information systems (GIS). Central to this program are the theoretical and applied fundamentals of the collection, management, analysis and representation of spatial data. The program builds on this core by exploring both traditional and novel methods for geo-visualization. Methods include teaching about various GIS and remote sensing technologies used to collect and analyze spatial data and how to use these technologies, critically discussing the implications of geo-spatial technologies on individuals and society, demonstrating how geo-spatial technologies are used effectively in urban and regional planning processes; and by exploration of applications of GIS to environmental, resource and policy/management issues.

The five-course series offers students the opportunity to expand their knowledge and expertise in the area of Geographic Information Science (GISci). Participants in the certificate will receive the theoretical and technical education needed to acquire, manage and critically analyze and represent geo-referenced data. The program offers basic and advanced courses in map design and geo-visualization, geographic information systems, remote sensing and geo-spatial technologies in general.

This certificate is not eligible for financial aid.

Students pursuing the GISci major or minor are not eligible for the GISci certificate program.

### Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

### Admission Requirements

A full understanding of basic computer use is expected.

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

### General Requirements

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.



## Program Requirements

### Required Courses (11 cr)

- [GEOG 2552](#) - Introduction to Maps and Geospatial Information [LE CAT2, LOGIC & QR] (3.0 cr)
- [GIS 3563](#) - Geographic Information Science I: Theory and Analysis (4.0 cr)
- [GIS 3564](#) - Geographic Information Science II: Applied GIS (4.0 cr)

### Electives (8 cr)

Take no more than 2 course(s) from the following:

- [GEOG 3532](#) - Map Design and Geographic Visualization (4.0 cr)
- [GIS 3580](#) - Earth Imagery (4.0 cr)
- [GIS 4533](#) - Distributed Geographic Information Services: Mobile and Web Based Solutions (4.0 cr)
- [GIS 4585](#) - Applied Statistics in GIS (4.0 cr)
- [GIS 5571](#) - Geographic Information Science in Urban Analysis (4.0 cr)
- [GIS 5572](#) - Environmental Application of GIS (4.0 cr)
- [GIS 5573](#) - GIScience in Regional Sustainability Applications (4.0 cr)
- [GIS 5581](#) - Digital Image Processing and Analysis (4.0 cr)
- [FORS 3167](#) - GEOG 3167 Cultural Geography of Iceland (3.0 cr)
- [FORS 3205](#) - GEOG 3205 Mapping in Belize (3.0 cr)
- [FORS 3800](#) - COMM 3800/GEOG 3800 Grassroots Activism in India (4.0 cr)

### Duluth Campus

## Geographic Information Science Minor

*Geography, Urban, Environmental & Sustain Studies*

### College of Liberal Arts

- Program Type: Undergraduate minor related to major
- Requirements for this program are current for Fall 2016
- Required credits in this minor: 22 to 27

The minor in geographic information science has as its core the study and use of geographic information systems (GIS). Central to this program are the theoretical and applied fundamentals of the collection, management, analysis, and representation of spatial data. The program builds on this core by exploring both traditional and novel methods for geo-visualization. Methods include teaching about various remote sensing technologies used to collect and classify remotely sensed data and how to use these technologies, critically discussing the implications of geo-spatial technologies on individuals and society, demonstrating how geo-spatial technologies are used effectively in urban and regional planning processes, and by exploring applications of GIS to environmental, resource and policy/management issues. The minor interweaves well with majors in anthropology, biology, chemistry, computer science, criminology, engineering, environmental sciences, geology, history, mathematics, political science, sociology, and statistics.

### Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

### Admission Requirements

Students following the fall 2012 or later degree requirements for majors or minors in: geography, environment and sustainability, and urban and regional studies may minor in GIS.

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

### Minor Requirements

#### Core (6-7 cr)

- [GEOG 2552](#) - Introduction to Maps and Geospatial Information [LE CAT2, LOGIC & QR] (3.0 cr)
- [GEOG 1304](#) - Human Geography [LE CAT6, LECD CAT06, SOC SCI] (3.0 cr)  
or [GEOG 1414](#) - Physical Geography [LE CAT4, NAT SCI, SUSTAIN] (4.0 cr)

#### Information Science Requirement (4-8 cr)

- [GIS 3563](#) - Geographic Information Science I: Theory and Analysis (4.0 cr)
- [GIS 3564](#) - Geographic Information Science II: Applied GIS (4.0 cr)  
or **Graduate Level Course (consent required)**
- [GIS 4565](#) - Geographic Information Science Intensive: Theory, Analysis, and Applications (4.0 cr)

#### Electives (12 cr)

Students must take a minimum of 3 courses or more to reach 12 credits. Other GIS 3xxx-5xxx level courses may apply here.

Take 3 or more course(s) from the following:

- [FORS 3205](#) - GEOG 3205 Mapping in Belize (3.0 cr)
- [GEOG 3532](#) - Map Design and Geographic Visualization (4.0 cr)
- [GIS 3580](#) - Earth Imagery (4.0 cr)
- [GIS 3591](#) - Independent Study in GIS (1.0 - 3.0 cr)
- [GIS 3597](#) - Internship in GIS (3.0 - 4.0 cr)
- GIS 3xxx
- [GIS 4533](#) - Distributed Geographic Information Services: Mobile and Web Based Solutions (4.0 cr)
- [GIS 4565](#) - Geographic Information Science Intensive: Theory, Analysis, and Applications (4.0 cr)
- [GIS 4585](#) - Applied Statistics in GIS (4.0 cr)
- [GIS 4586](#) - Geoprocessing with Python (4.0 cr)
- GIS 4xxx
- [GIS 5571](#) - Geographic Information Science in Urban Analysis (4.0 cr)
- [GIS 5572](#) - Environmental Application of GIS (4.0 cr)
- [GIS 5573](#) - GIScience in Regional Sustainability Applications (4.0 cr)
- [GIS 5581](#) - Digital Image Processing and Analysis (4.0 cr)
- [GIS 5591](#) - Independent Study in GIS (1.0 - 3.0 cr)



•GIS 5xxx

## Duluth Campus

### Geography B.A.

*Geography, Urban, Environmental & Sustain Studies*

#### College of Liberal Arts

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 120
- Required credits within the major: 41
- Degree: Bachelor of Arts

Geography is distinctive in that it bridges the social sciences and the natural sciences. The two main branches of geography are human geography and physical geography. Human geography is concerned with the spatial aspects of human existence, while physical geography focuses on patterns of climate, landforms, vegetation, soils and water. Our Geography program trains students for employment in careers requiring knowledge of geography or the use of geographic techniques, and it prepares them for graduate studies. Career opportunities for students with a degree in geography include environmental assessment, public and private sector planning, geographic education, travel and tourism, cartography and geo-visualization, business and industrial research, location analysis, community activism, geographic information sciences, and a variety of other activities requiring geographic expertise.

Honors Requirements: Candidates must have a 3.00 overall GPA and a 3.30 in the major. An honors project and paper must be completed in GEOG 4999. Students who wish to have such work considered for honors must complete a departmental form prior to the second semester of their senior year. Completed projects and papers must be approved by the sponsoring faculty member and other members of the department.

### Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

### Admission Requirements

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

#### Required prerequisites

##### Introductory Requirement (1 cr)

Transfer students with 24 or more credits and current UMD students who change colleges to CLA are exempt from this requirement.

New first-year students with 24 or more PSEO credits may request to be waived from this requirement.

[UST 1000](#) - UMD Seminar (1.0 - 2.0 cr)

### General Requirements

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.



## Program Requirements

1. A second field of study (either a minor or another major).

2. Foreign language study is recommended, but not required, for all geography students, especially those interested in cultural geography or considering graduate study.

Students interested in the technical/techniques aspects of geography should consult with their adviser about elective courses that would support their focus in geography.

### Lower Division Core (13 cr)

[GEOG 1202](#) - World Regional Geography [LE CAT8, LEIP CAT08, GLOBAL PER] (3.0 cr)

[GEOG 1304](#) - Human Geography [LE CAT6, LECD CAT06, SOC SCI] (3.0 cr)

[GEOG 2552](#) - Introduction to Maps and Geospatial Information [LE CAT2, LOGIC & QR] (3.0 cr)

[GEOG 1414](#) - Physical Geography [LE CAT4, NAT SCI, SUSTAIN] (4.0 cr)

or [GEOL 1110](#) - Geology and Earth Systems [LE CAT4, NAT SCI, SUSTAIN] (4.0 cr)

### Upper Division Core (12 cr)

[GEOG 3532](#) - Map Design and Geographic Visualization (4.0 cr)

[GEOG 4612](#) - Field Techniques (4.0 cr)

[GEOG 4803](#) - Geographic Thought (3.0 cr)

[GEOG 4990](#) - Geography Seminar (1.0 cr)

### Electives (12 cr)

Take at least 4 different GEOG courses for a minimum total of 12 credits. Only 6 credits from the following will count towards the major: [GEOG 3991](#), [3995](#), [3997](#), [4999](#), [5991](#). (Other GEOG 1xxx-5xxx level courses may apply here.)

Take 4 or more course(s) totaling 12 or more credit(s) from the following:

•[GEOG 2305](#) - Geography of Cultural Diversity [CDIVERSITY] (3.0 cr)

•[GEOG 2306](#) - Environmental Conservation [LE CAT8, SUSTAIN] (3.0 cr)

•[GEOG 2313](#) - Economic Geography [LE CAT6, SOC SCI] (3.0 cr)

•[GEOG 3334](#) - Urban Geography (3.0 cr)

•[GEOG 3335](#) - Urban Planning (3.0 cr)

•[GEOG 3370](#) - Geographies of Development (3.0 cr)

•[GEOG 3401](#) - Weather and Climate (3.0 cr)

•[GEOG 3422](#) - Natural Hazards (3.0 cr)

•[GEOG 3461](#) - Geography of Global Resources [SUSTAIN] (3.0 cr)

•[GEOG 3481](#) - Urban Ecology (3.0 cr)

•[GEOG 3712](#) - Geography of Latin America (3.0 cr)

•[GEOG 4393](#) - Political Geography (3.0 cr)

•[GEOG 4446](#) - Water Processes and Management (3.0 cr)

•[GEOG 4451](#) - The Geography of Soils (4.0 cr)

•[FORS 3167](#) - GEOG 3167 Cultural Geography of Iceland (3.0 cr)

•[FORS 3205](#) - GEOG 3205 Mapping in Belize (3.0 cr)

•[FORS 3800](#) - COMM 3800/GEOG 3800 Grassroots Activism in India (4.0 cr)

#### •Optional Elective

Take at most 6 credit(s) from the following:

•[GEOG 3991](#) - Independent Study in Geography (1.0 - 4.0 cr)

•[GEOG 3995](#) - Special Topics: (Various Titles to be Assigned) (1.0 - 4.0 cr)

•[GEOG 3997](#) - Internship in Geography (1.0 - 6.0 cr)

•[GEOG 4999](#) - Honors Project Geography (3.0 cr)

•[GEOG 5991](#) - Independent Study in Geography (1.0 - 4.0 cr)

### Advanced Writing Requirement (3 cr)

[WRIT 31xx](#) - Adv Writing (3 cr)

## Duluth Campus

### Geography Minor

*Geography, Urban, Environmental & Sustain Studies*

#### College of Liberal Arts

- Program Type: Undergraduate minor related to major
- Requirements for this program are current for Fall 2016
- Required credits in this minor: 23

The geography minor provides students with a strong interdisciplinary minor that augments any degree program that considers both human and physical aspects of the world. A minor in geography goes hand-in-hand with degrees in anthropology, biology, education, environment & sustainability, environmental education, geology, history, international studies, political science, and sociology.

### Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

### Minor Requirements

GIS majors cannot minor in geography. They may double major in GIS and geography.

#### Core (14 cr)

- [GEOG 1304](#) - Human Geography [LE CAT6, LECD CAT06, SOC SCI] (3.0 cr)
- [GEOG 2552](#) - Introduction to Maps and Geospatial Information [LE CAT2, LOGIC & QR] (3.0 cr)
- [GEOG 4803](#) - Geographic Thought (3.0 cr)
- [GEOG 4990](#) - Geography Seminar (1.0 cr)
- [GEOG 1414](#) - Physical Geography [LE CAT4, NAT SCI, SUSTAIN] (4.0 cr)  
or [GEOL 1110](#) - Geology and Earth Systems [LE CAT4, NAT SCI, SUSTAIN] (4.0 cr)

#### Electives (9 cr)

Take at least 6 credits of GEOG 3xxx or above to satisfy this requirement. Only 3 credits from the following will count towards the minor: GEOG 3991, 3995, 3997, 4999, 5991. (Other GEOG 1xxx-5xxx level courses may apply here.)

##### GEOG 1xxx-2xxx

Most GEOG 1xxx-2xxx courses apply here.

Take at most 3 credit(s) from the following:

- [GEOG 1202](#) - World Regional Geography [LE CAT8, LEIP CAT08, GLOBAL PER] (3.0 cr)
- [GEOG 2305](#) - Geography of Cultural Diversity [CDIVERSITY] (3.0 cr)
- [GEOG 2306](#) - Environmental Conservation [LE CAT8, SUSTAIN] (3.0 cr)
- [GEOG 2313](#) - Economic Geography [LE CAT6, SOC SCI] (3.0 cr)

##### GEOG 3xxx-5xxx

Most GEOG 3xxx-5xxx courses apply here.

Take 6 or more credit(s) from the following:

- [GEOG 3334](#) - Urban Geography (3.0 cr)
- [GEOG 3335](#) - Urban Planning (3.0 cr)
- [GEOG 3370](#) - Geographies of Development (3.0 cr)
- [GEOG 3401](#) - Weather and Climate (3.0 cr)
- [GEOG 3422](#) - Natural Hazards (3.0 cr)
- [GEOG 3461](#) - Geography of Global Resources [SUSTAIN] (3.0 cr)
- [GEOG 3481](#) - Urban Ecology (3.0 cr)
- [GEOG 3532](#) - Map Design and Geographic Visualization (4.0 cr)
- [GEOG 3712](#) - Geography of Latin America (3.0 cr)
- [GEOG 4393](#) - Political Geography (3.0 cr)
- [GEOG 4446](#) - Water Processes and Management (3.0 cr)
- [GEOG 4451](#) - The Geography of Soils (4.0 cr)
- [GEOG 4612](#) - Field Techniques (4.0 cr)
- [FORS 3167](#) - GEOG 3167 Cultural Geography of Iceland (3.0 cr)
- [FORS 3205](#) - GEOG 3205 Mapping in Belize (3.0 cr)
- [FORS 3800](#) - COMM 3800/GEOG 3800 Grassroots Activism in India (4.0 cr)

##### Optional Elective

Take at most 3 credit(s) from the following:



- GEOG 3991 - Independent Study in Geography (1.0 - 4.0 cr)
- GEOG 3995 - Special Topics: (Various Titles to be Assigned) (1.0 - 4.0 cr)
- GEOG 3997 - Internship in Geography (1.0 - 6.0 cr)
- GEOG 4999 - Honors Project Geography (3.0 cr)
- GEOG 5991 - Independent Study in Geography (1.0 - 4.0 cr)

### **Duluth Campus**

## **German Studies B.A.**

*Foreign Languages & Literatures*

### **College of Liberal Arts**

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 120
- Required credits within the major: 27 to 48
- Study abroad will be strongly encouraged, to be determined by student interest and focus, throughout the German-speaking world. Our program will work to facilitate the achievement of University of Minnesota system-wide goals, which call for 50 percent of students to participate in a study abroad experience.
- Degree: Bachelor of Arts

This program introduces and explores the culture of German-speaking countries, with an emphasis on both cultural history and contemporary issues. The political and social backgrounds of these cultures are seen through literature, the arts, history, and media. As global commerce and communication become the norm, German Studies provides a solid basis for careers from business to law, human services to diplomacy, STEM fields to the arts. Taught in German this program also offers a solid foundation in the language and the development of intercultural competencies. German majors are encouraged to declare a second major in a complementary field.

Honors requirements: Departmental honors will be granted to students according to the following process: Students who achieve a 3.30 GPA in upper division language courses at UMD will be invited by program faculty to submit a portfolio of excellent work done in the language for consideration by faculty in the program. The faculty then will decide if honors are to be awarded based on that portfolio.

### **Program Delivery**

This program is available:

- via classroom (the majority of instruction is face-to-face)

### **Admission Requirements**

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

#### **Required prerequisites**

##### **Introductory Requirement (1 cr)**

Transfer students with 24 or more credits and current UMD students who change colleges to CLA are exempt from this requirement. New first-year students with 24 or more PSEO credits may request to be waived from this requirement.

[UST 1000](#) - UMD Seminar (1.0 - 2.0 cr)

### **General Requirements**

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.



## Program Requirements

1. A second field of study (either a minor or another major).
2. Three elective courses (12 credits) applicable to the major must be taken through UMD.
3. Study abroad is encouraged for all students and the department makes every effort to facilitate such experiences.
4. Oral proficiency exam.

Note: Students pursuing both the German studies BA and the teaching German BAA must satisfactorily complete 12 non-overlapping upper division credits of German electives over and above the requirements for the BAA to receive both degrees.

### Core (0-20 cr)

Students may be exempted from part of the core requirements if they have previously completed studies in German. As a rule, students with 3 years of high school German enter the sequence at the intermediate German level and are exempt from GER 1101-1102. Students may potentially receive credit for GER 1201-1202 after a successful test-out procedure.

- GER 1101 - Beginning German I [LE CAT3, COMM & LAN] (4.0 cr)
- GER 1102 - Beginning German II [LE CAT3, COMM & LAN] (4.0 cr)
- GER 1201 - Intermediate German I [LE CAT3, COMM & LAN] (4.0 cr)
- GER 1202 - Intermediate German II [LE CAT3, LEIP CAT03, COMM & LAN] (4.0 cr)
- GER 2301 - Advanced German [LE CAT3, LEIP CAT03, COMM & LAN] (4.0 cr)

### Upper Division Electives (23-24 cr)

Most GER 3xxx level or above courses apply here. To enroll in these courses a student must have earned a grade of C or better in 2301, or have instructor's permission. With adviser consent, some upper-division German courses may be transferred and/or taken abroad, but at least three courses (12 credits) must be taken through UMD.

Take 23 or more credit(s) from the following:

- FST 3040 - GER 3040, Culture of Germany (4.0 cr)
- GER 3302 - Advanced Composition and Conversation [COMM & LAN] (4.0 cr)
- GER 3401 - Texts and Contexts in German Speaking World [HUMANITIES] (4.0 cr)
- GER 3403 - Page and Stage: German Theater and Performance [FINE ARTS] (4.0 cr)
- GER 3591 - Independent Study (1.0 - 4.0 cr)
- GER 3601 - German Studies I: Knights to Nationalisms [HUMANITIES] (4.0 cr)
- GER 3602 - German Studies II: From the Rise of the Reich to the Fall of the Wall [HUMANITIES] (4.0 cr)
- GER 4095 - Special Topics: (Various Titles to be Assigned) (1.0 - 4.0 cr)
- GER 4302 - German Women Writers and Filmmakers [HUMANITIES] (4.0 cr)
- GER 4305 - German Cinema [HUMANITIES] (4.0 cr)
- GER 4404 - Contemporary Germany [HUMANITIES, GLOBAL PER] (4.0 cr)
- GER 4502 - German Modernisms: From Vienna to Berlin [HUMANITIES] (4.0 cr)
- GER 4591 - Independent Study (1.0 - 4.0 cr)

#### •Optional Elective

One of the following courses (taught in English) applies to the '23-24 elective credits'. With prior approval from an advisor, selected courses may be taken in another department or program if related to the major.

Take no more than 1 course(s) from the following:

- ARTH 3370 - European Art, 1900-1945 (3.0 cr)
- HIST 3243 - Europe in Crisis in the 20th Century (4.0 cr)
- LANG 2050 - The Digital Humanities: Language as Interface [HUMANITIES] (4.0 cr)
- LING 1811 - Introduction to Linguistics [LE CAT2, LOGIC & QR] (3.0 cr)
- POL 3517 - Western European Political Systems (4.0 cr)

### Advanced Writing Requirement (3 cr)

WRIT 31xx - Adv Writing (3 cr)

### Duluth Campus

## German Studies Minor

Foreign Languages & Literatures

### College of Liberal Arts

- Program Type: Undergraduate minor related to major
- Requirements for this program are current for Fall 2016
- Required credits in this minor: 12 to 32
- Study abroad will be strongly encouraged, to be determined by student interest and focus, throughout the German-speaking world. Our program will work to facilitate the achievement of University of Minnesota system-wide goals, which call for 50 percent of students to participate in a study abroad experience.

The German studies minor complements any liberal arts degree. German has been the language of a major world culture for centuries and is the traditional language of science, medicine, philosophy, and the arts. As global commerce and communication become the norm, German studies provides a solid basis for careers in business, law, human services, and diplomacy. Taught in German, this program offers a solid foundation in the language.

### Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

### Minor Requirements

#### Core (0-20 cr)

Students with previous language study may be exempt from some core requirements and should consult the department about placement.

- [GER 1101](#) - Beginning German I [LE CAT3, COMM & LAN] (4.0 cr)
- [GER 1102](#) - Beginning German II [LE CAT3, COMM & LAN] (4.0 cr)
- [GER 1201](#) - Intermediate German I [LE CAT3, COMM & LAN] (4.0 cr)
- [GER 1202](#) - Intermediate German II [LE CAT3, LEIP CAT03, COMM & LAN] (4.0 cr)
- [GER 2301](#) - Advanced German [LE CAT3, LEIP CAT03, COMM & LAN] (4.0 cr)

#### Electives (12 cr)

Most GER 3xxx level or above courses apply here. To enroll in these courses a student must have earned a grade of C or better in 2301, or be concurrently enrolled in 2301, or have instructor's consent. Select German courses beyond GER 2301. With advisor's consent, courses taken abroad may count toward the minor.

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

- [FST 3040](#) - GER 3040, Culture of Germany (4.0 cr)
- [GER 3302](#) - Advanced Composition and Conversation [COMM & LAN] (4.0 cr)
- [GER 3401](#) - Texts and Contexts in German Speaking World [HUMANITIES] (4.0 cr)
- [GER 3403](#) - Page and Stage: German Theater and Performance [FINE ARTS] (4.0 cr)
- [GER 3591](#) - Independent Study (1.0 - 4.0 cr)
- [GER 3601](#) - German Studies I: Knights to Nationalisms [HUMANITIES] (4.0 cr)
- [GER 3602](#) - German Studies II: From the Rise of the Reich to the Fall of the Wall [HUMANITIES] (4.0 cr)
- [GER 4095](#) - Special Topics: (Various Titles to be Assigned) (1.0 - 4.0 cr)
- [GER 4302](#) - German Women Writers and Filmmakers [HUMANITIES] (4.0 cr)
- [GER 4305](#) - German Cinema [HUMANITIES] (4.0 cr)
- [GER 4404](#) - Contemporary Germany [HUMANITIES, GLOBAL PER] (4.0 cr)
- [GER 4502](#) - German Modernisms: From Vienna to Berlin [HUMANITIES] (4.0 cr)
- [GER 4591](#) - Independent Study (1.0 - 4.0 cr)

### Duluth Campus

## Hispanic Studies B.A.

Foreign Languages & Literatures

### College of Liberal Arts

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 120
- Required credits within the major: 27 to 48
- Study abroad will be strongly encouraged, to be determined by student interest and focus, throughout the Spanish-speaking world. Our program will work to facilitate the achievement of University of Minnesota system-wide goals, which call for 50 percent of students to participate in a study abroad experience.
- Degree: Bachelor of Arts

The BA in Hispanic studies fosters the development of cross-cultural competency and broader world perspectives through the study of history, cultural production and texts of Spanish-speaking communities and cultures, and their concomitant inherent diversity. This major presupposes the acquisition of Spanish language in order to carry out coursework in the study, analysis and understanding of literary texts and cultural products from Spain, Latin America, and United States Latino communities. It prepares students for graduate or professional school programs such as law, or for work in government or with agencies and businesses having international ties. It provides students with a traditional liberal education.

Honors requirements: Departmental honors will be awarded to students according to the following process. Students who achieve a 3.30 GPA in upper division language courses at UMD will be invited by program faculty to submit a portfolio of excellent work done in the language for consideration by faculty in the program. The faculty then will decide if honors will be awarded, based on that portfolio.

### Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

### Admission Requirements

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

#### Required prerequisites

##### Introductory Requirement (1 cr)

Transfer students with 24 or more credits and current UMD students who change colleges to CLA are exempt from this requirement. New first-year students with 24 or more PSEO credits may request to be waived from this requirement.

[UST 1000](#) - UMD Seminar (1.0 - 2.0 cr)

### General Requirements

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

## Program Requirements

1. A second field of study (either a minor or another major). Students majoring in Hispanic studies cannot minor in Latin American studies, but they may double major. Students double majoring in Hispanic studies and Latin American studies must have a third field of study (another major or minor).

Note: Students pursuing both Hispanic studies BA and the teaching Spanish BAA must satisfactorily complete 12 non-overlapping upper division credits of Spanish electives over and above the requirements for the BAA to receive both degrees.

2. Two elective courses applicable to the major must be taken through UMD.
3. Study abroad is encouraged for all students and the department makes every effort to facilitate such experiences.
4. Oral proficiency exam.

### Core (0-20 cr)

The core program in language skills (listening, speaking, reading, writing) is common to all majors and minors. Students with previous language study may be exempt from some core requirements and should consult the department about placement. Students need to complete the advanced Spanish language course (SPAN 2301) before other upper division content courses that emphasize literature and culture.

- SPAN 1101 - Beginning Spanish I [LE CAT3, COMM & LAN] (4.0 cr)
- SPAN 1102 - Beginning Spanish II [LE CAT3, COMM & LAN] (4.0 cr)
- SPAN 1201 - Intermediate Spanish I [LE CAT3, COMM & LAN] (4.0 cr)
- SPAN 1202 - Intermediate Spanish II [LE CAT3, LEIP CAT03, COMM & LAN] (4.0 cr)
- SPAN 2301 - Advanced Spanish [LE CAT3, LEIP CAT03, COMM & LAN] (4.0 cr)

### Upper Division Electives (23-24 cr)

Most SPAN 3xxx level or above courses apply here. To enroll in these courses students must have earned a C or better in SPAN 2301, be currently enrolled, or have instructor consent. With adviser consent, some upper-division Spanish courses may be transferred and/or earned abroad, but at least two courses must be taken through UMD.

Take 23 or more credit(s) from the following:

- FST 3894 - SPAN 3894 Language and Culture in Spain (6.0 cr)
- SPAN 3042 - Hispanic American Civilization and Culture [HUMANITIES, GLOBAL PER] (4.0 cr)
- SPAN 3044 - Civilization, Cultures and Communities of Spain [HUMANITIES, GLOBAL PER] (4.0 cr)
- SPAN 3097 - Internship (1.0 - 6.0 cr)
- SPAN 4004 - Spanish Conversation (1.0 - 4.0 cr)
- SPAN 4011 - Hispanic American Prose [HUMANITIES] (4.0 cr)
- SPAN 4013 - Hispanic American Poetry and Drama [HUMANITIES] (4.0 cr)
- SPAN 4017 - Hispanic American Cinema and Culture [FINE ARTS] (4.0 cr)
- SPAN 4018 - Hispanic America From Within [HUMANITIES] (4.0 cr)
- SPAN 4019 - Seminar: Hispanic America in the 21st Century [HUMANITIES] (4.0 cr)
- SPAN 4022 - Medieval and Golden Age Literature and Culture of Spain [HUMANITIES] (4.0 cr)
- SPAN 4027 - Contemporary Literature and Culture of Spain [HUMANITIES] (4.0 cr)
- SPAN 4028 - Literature and Culture of Spain 18th to the 20th Century [HUMANITIES] (4.0 cr)
- SPAN 4030 - Cinema and Culture of Spain [FINE ARTS] (4.0 cr)
- SPAN 4090 - Aspects of the Hispanic World [HUMANITIES] (4.0 cr)
- SPAN 4091 - Independent Study (1.0 - 4.0 cr)
- SPAN 4095 - Special Topics: (Various Titles to be Assigned) (1.0 - 4.0 cr)

#### •Optional Elective

One of the following courses (taught in English) applies to the '23-24 elective credits'. However, students majoring in Hispanic studies may take both Latin American courses taught in English (SPAN 2540 & SPAN 2550). With prior approval from an advisor, selected courses may be taken in another department or program if related to the major.

Take 0 - 1 course(s) from the following:

- ANTH 3618 - Ancient Middle America (3.0 cr)
- ANTH 3632 - Latin American Cultures (3.0 cr)
- ARTH 3110 - Art of the Ancient Americas (3.0 cr)
- ARTH 3120 - Art of Colonial Latin America (3.0 cr)
- ARTH 3130 - Modern and Contemporary Mexican Art (3.0 cr)
- ARTH 3140 - Women in Art/Visual Culture in Latin America (3.0 cr)
- ARTH 4693 - Directed Study Latin American Art (1.0 - 3.0 cr)
- ENGL 3563 - American Literature I [HUMANITIES, CDIVERSITY] (4.0 cr)
- ENGL 3564 - American Literature II [HUMANITIES, CDIVERSITY] (4.0 cr)
- GEOG 3712 - Geography of Latin America (3.0 cr)
- LING 1811 - Introduction to Linguistics [LE CAT2, LOGIC & QR] (3.0 cr)



- LING 3101 - Introduction to Phonology (3.0 cr)
- PHIL 2001 - Existential Literature [HUMANITIES] (3.0 cr)
- POL 3575 - Latin American Politics and Development (4.0 cr)
- POL 3580 - Central American Politics (4.0 cr)
- SPAN 2093 - Spanish Historical Film and Fiction in Translation [LE CAT7, HUMANITIES, GLOBAL PER] (4.0 cr)
- SPAN 2540 - Latino Literatures and Cultures [LE CAT8, LECD CAT08, HUMANITIES, CDIVERSITY] (4.0 cr)
- SPAN 2550 - Globalization and Sustainability in Latin America [SUSTAIN] (4.0 cr)
- WS 3001 - Gender Relations in the Global South [GLOBAL PER] (3.0 cr)
- WS 3002 - Latin American Women: Culture and Politics (3.0 cr)
- OR take one or both of the following courses:  
Take no more than 2 course(s) from the following:
  - SPAN 2540 - Latino Literatures and Cultures [LE CAT8, LECD CAT08, HUMANITIES, CDIVERSITY] (4.0 cr)
  - SPAN 2550 - Globalization and Sustainability in Latin America [SUSTAIN] (4.0 cr)

**Advanced Writing Requirement (3 cr)**

Recommended: WRIT 3100 - Advanced Writing: Language and Literature

WRIT 31xx - Adv Writing (3 cr)

### Duluth Campus

## Hispanic Studies Minor

Foreign Languages & Literatures

### College of Liberal Arts

- Program Type: Undergraduate minor related to major
- Requirements for this program are current for Fall 2016
- Required credits in this minor: 12 to 32
- Study abroad will be strongly encouraged, to be determined by student interest and focus, throughout the Spanish-speaking world. Our program will work to facilitate the achievement of University of Minnesota system-wide goals, which call for 50 percent of students to participate in a study abroad experience.

The Hispanic studies minor complements any liberal arts degree and many professional degrees, especially those in business, social services, and politics.

### Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

### Minor Requirements

#### Core (0-20 cr)

Students may be exempt from part or all of the core requirements if they have previously completed studies in Spanish at the high school or college level.

- [SPAN 1101](#) - Beginning Spanish I [LE CAT3, COMM & LAN] (4.0 cr)
- [SPAN 1102](#) - Beginning Spanish II [LE CAT3, COMM & LAN] (4.0 cr)
- [SPAN 1201](#) - Intermediate Spanish I [LE CAT3, COMM & LAN] (4.0 cr)
- [SPAN 1202](#) - Intermediate Spanish II [LE CAT3, LEIP CAT03, COMM & LAN] (4.0 cr)
- [SPAN 2301](#) - Advanced Spanish [LE CAT3, LEIP CAT03, COMM & LAN] (4.0 cr)

#### Upper Division (12 cr)

Most SPAN 3xxx-4xxx courses apply here. A grade of C or better in SPAN 2301 is required for upper division coursework. With advisor consent, elective courses taken abroad count toward the minor. Students who study abroad take at least two courses at the 3xxx-4xxx level beyond the experience. SPAN 4091, Independent Studies, does not apply to the minor.

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

- [FST 3894](#) - SPAN 3894 Language and Culture in Spain (6.0 cr)
- [SPAN 3042](#) - Hispanic American Civilization and Culture [HUMANITIES, GLOBAL PER] (4.0 cr)
- [SPAN 3044](#) - Civilization, Cultures and Communities of Spain [HUMANITIES, GLOBAL PER] (4.0 cr)
- [SPAN 3097](#) - Internship (1.0 - 6.0 cr)
- [SPAN 4004](#) - Spanish Conversation (1.0 - 4.0 cr)
- [SPAN 4011](#) - Hispanic American Prose [HUMANITIES] (4.0 cr)
- [SPAN 4013](#) - Hispanic American Poetry and Drama [HUMANITIES] (4.0 cr)
- [SPAN 4017](#) - Hispanic American Cinema and Culture [FINE ARTS] (4.0 cr)
- [SPAN 4018](#) - Hispanic America From Within [HUMANITIES] (4.0 cr)
- [SPAN 4019](#) - Seminar: Hispanic America in the 21st Century [HUMANITIES] (4.0 cr)
- [SPAN 4022](#) - Medieval and Golden Age Literature and Culture of Spain [HUMANITIES] (4.0 cr)
- [SPAN 4027](#) - Contemporary Literature and Culture of Spain [HUMANITIES] (4.0 cr)
- [SPAN 4028](#) - Literature and Culture of Spain 18th to the 20th Century [HUMANITIES] (4.0 cr)
- [SPAN 4030](#) - Cinema and Culture of Spain [FINE ARTS] (4.0 cr)
- [SPAN 4090](#) - Aspects of the Hispanic World [HUMANITIES] (4.0 cr)
- [SPAN 4095](#) - Special Topics: (Various Titles to be Assigned) (1.0 - 4.0 cr)

## Duluth Campus

### History B.A.

History

#### College of Liberal Arts

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 120
- Required credits within the major: 44 to 56
- Degree: Bachelor of Arts

The study of history is vital to a liberal arts education, because it provides a holistic approach to knowledge; it broadens students' understanding of commonality and diversity, development of cultures, and drama of human experience.

History touches on the whole range of the human heritage. While focusing on the past, it also helps students understand the present and provides a strong foundation for the future. It prepares students for careers that demand analytical and communication skills, critical thinking, and cultural breadth. These careers include law, business, journalism, teaching, government, and the ministry.

This program introduces students to major world cultures and provides experience in the critical use of historical literature and other source materials. It offers concentrations in five geographical areas (Africa, East Asia, Europe, the Middle East, and the United States) and three chronological periodizations (ancient, pre-modern, and modern).

Honors requirements: Candidates must have a 3.00 overall GPA and a 3.30 in the major. An honors paper or project must be completed in a 5xxx course. Students who wish to have such work considered for honors must complete a departmental form the first semester of their senior year. Completed projects and papers must be approved by the sponsoring faculty member and one other member of the faculty.

Language Requirement: Students must complete the sequence in the intermediate-level courses of one second or foreign language. Students may be exempt from this requirement if they have previously completed an equivalent language at this level. The History Department Head reviews exemptions. Students should consult the Departments of American Indian Studies, Education, or Foreign Languages and Literatures about placement.

### Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

### Admission Requirements

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

#### Required prerequisites

##### Introductory Requirement (1 cr)

Transfer students with 24 or more credits and current UMD students who change colleges to CLA are exempt from this requirement. New first-year students with 24 or more PSEO credits may request to be waived from this requirement.

[UST 1000](#) - UMD Seminar (1.0 - 2.0 cr)

### General Requirements

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.

6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

## Program Requirements

1. A second field of study (either a minor or another major).
2. Students must complete the sequence in the intermediate-level courses of one second or foreign language.

\*Internship option: In consultation with the department's internship advisor, students may participate in HIST 3097, a learning experience either on or off campus that introduces them to practical applications or other methodological issues of history as a discipline.

### Program Core Requirements (16-20 cr)

Take at least one course from each of the following five geographical areas. HIST 2095 or 3095 may be applicable to an area with departmental approval. Additional courses taken at the 3xxx level or higher may be applicable to the upper division electives area.

#### Africa

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

- AAAS 1102 - Introduction to Atlantic Slave Trade [LE CAT7, LECD CAT07, CDIVERSITY] (3.0 cr)
- HIST 2515 - Precolonial Africa [LE CAT7, LECD CAT07, HUMANITIES] (4.0 cr)
- HIST 3615 - Modern Africa (4.0 cr)
- HIST 3616 - Society and Culture in 20th-Century Africa (4.0 cr)
- HIST 3695 - Special Topics African History (various titles to be assigned) (4.0 cr)

#### East Asia

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

- FORS 2030 - HIST 2030: China An Ancient Civilization (3.0 cr)
- HIST 1400 - Modern World History from 1500 to present [LE CAT7, LEIP CAT07, HUMANITIES] (4.0 cr)
- HIST 2405 - History of Chinese Culture (4.0 cr)
- HIST 2410 - Modern China, Japan, Korea, Vietnam and East Asia (4.0 cr)
- HIST 3463 - History of Modern China (4.0 cr)
- HIST 3465 - Twentieth Century China Politics (4.0 cr)
- HIST 3495 - Special Topics East Asian History (Various Titles to be Assigned) (4.0 cr)

#### Europe

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

- FORS 2025 - HIST 2025 History in Greece (3.0 cr)
- FORS 3006 - Hist 3235, History and Soccer (4.0 cr)
- HIST 1200 - World History to 1500: From Antiquity to the Age of Exploration [HUMANITIES] (4.0 cr)
- HIST 1207 - Dawn of Modern Europe [LE CAT7, HUMANITIES] (4.0 cr)
- HIST 1208 - Europe in the Modern Age [LE CAT7, HUMANITIES] (4.0 cr)
- HIST 2345 - Science and Society: 1500 to Present [LE CAT7, HUMANITIES] (4.0 cr)
- HIST 2365 - Russia in the 20th Century [LE CAT7, LEIP CAT07, GLOBAL PER] (4.0 cr)
- HIST 3107 - The World of Late Antiquity: From Constantine to Justinian (4.0 cr)
- HIST 3121 - The Age of the Heroes: Homer and his World (4.0 cr)
- HIST 3131 - The Roman Republic (4.0 cr)
- HIST 3133 - Ancient Greece from Homer to Alexander (4.0 cr)
- HIST 3141 - Ancient Rome: From Republic to Empire (4.0 cr)
- HIST 3195 - Special Topics European History (various titles to be assigned) (4.0 cr)
- HIST 3243 - Europe in Crisis in the 20th Century (4.0 cr)
- HIST 3244 - History of Holocaust (4.0 cr)
- HIST 3257 - Modern France (4.0 cr)
- HIST 3264 - Imperial Russia (4.0 cr)
- HIST 3939 - Europe in the Age of Renaissance and Reformation: 1348-1648 (4.0 cr)
- HIST 3940 - Early Modern England: 1485-1689 (4.0 cr)

#### Middle East

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

- HIST 1027 - Introduction to Islam [LE CAT7, LEIP CAT07, HUMANITIES] (4.0 cr)
- HIST 2325 - Muslim Societies [LE CAT7, LEIP CAT07] (4.0 cr)
- HIST 3035 - Ancient Warfare From Alexander to Mohammad (4.0 cr)
- HIST 3038 - History of Christianity: Origins to 1054 (4.0 cr)
- HIST 3055 - The Bible & Ancient Near East (4.0 cr)

- [HIST 3726](#) - Modern Middle East: 18th Century-Present (4.0 cr)
- [HIST 3795](#) - Special Topics Middle Eastern History (various titles to be assigned) (4.0 cr)
- [HIST 3825](#) - Islamic History from Muhammad to the Ottomans (4.0 cr)
- [HIST 4727](#) - Middle Eastern History Through Film [LEIP CAT07] (4.0 cr)

#### United States

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

- [HIST 1304](#) - US History Part I: 1607-1877 [LE CAT7, HUMANITIES] (4.0 cr)
- [HIST 1305](#) - US History Part II: 1865-Present [LE CAT7, HUMANITIES] (4.0 cr)
- [HIST 1310](#) - Minnesota History (4.0 cr)
- [HIST 2350](#) - Nutrition and American History [HUMANITIES, SUSTAIN] (4.0 cr)
- [HIST 2355](#) - United States Military History [LE CAT7] (4.0 cr)
- [HIST 3310](#) - Colonial America: The American Revolution (4.0 cr)
- [HIST 3315](#) - Religion in Colonial America (4.0 cr)
- [HIST 3318](#) - Slavery, Lincoln and the Civil War (4.0 cr)
- [HIST 3320](#) - American Popular Culture, 1929 to the Present (4.0 cr)
- [HIST 3346](#) - History of Hollywood (4.0 cr)
- [HIST 3386](#) - The United States and the World since 1898 (4.0 cr)
- [HIST 3395](#) - Special Topics United States History (various titles to be assigned) (4.0 cr)
- [HIST 3396](#) - The Vietnam War (4.0 cr)

#### Upper Division Electives (20 cr)

A minimum of 20 credits must be at the HIST 3xxx-4xxx level within the major. Courses satisfying the Program Core at the 3xxx-4xxx level will be counted within this requirement. HIST 3091, 3097, 3099 do not apply to the major, but are applicable toward the degree as elective credit(s). HIST 3095 will apply to this area.  
(HIST 3xxx-4xxx level courses)

#### Upper Division Core Requirement (4 cr)

[HIST 5905](#) - History Seminar (4.0 cr)

#### Language Requirement (0 - 8 cr)

Students must complete the sequence in the intermediate-level courses of one second or foreign language. Students may be exempt from this requirement if they have previously completed an equivalent language study at this level. The History Department Head reviews exemptions. Students should consult the Departments of American Indian Studies, Education, or Foreign Languages and Literatures about placement.

#### American Sign Language

[ASL 3003](#) - Intermediate American Sign Language I [COMM & LAN] (3.0 cr)

[ASL 3004](#) - Intermediate American Sign Language II [COMM & LAN] (3.0 cr)

or **Chinese**

[CHIN 1103](#) - Beginning Chinese III: A Practical Introduction to Everyday Mandarin Chinese [LE CAT3, COMM & LAN] (4.0 cr)

[CHIN 1104](#) - Beginning Chinese IV: A Practical Introduction to Everyday Mandarin Chinese [LE CAT3, COMM & LAN] (4.0 cr)

or **French**

[FR 1201](#) - Intermediate French I [LE CAT3, COMM & LAN] (4.0 cr)

[FR 1202](#) - Intermediate French II [LE CAT3, LEIP CAT03, COMM & LAN] (4.0 cr)

or **German**

[GER 1201](#) - Intermediate German I [LE CAT3, COMM & LAN] (4.0 cr)

[GER 1202](#) - Intermediate German II [LE CAT3, LEIP CAT03, COMM & LAN] (4.0 cr)

or **Ojibwe**

[AMIN 2103](#) - Intermediate Ojibwe I [LE CAT3, LECD CAT03, COMM & LAN] (3.0 cr)

[AMIN 2104](#) - Intermediate Ojibwe II [LE CAT3, LECD CAT03, COMM & LAN] (3.0 cr)

or **Russian (choose one of the following)**

a) Intermediate Russian Language sequence at the College of St. Scholastica (8 cr)  
(through inter-institutional cross-registration)

b) Abroad Experience

[FORS 1210](#) - RUSS 1210 Intermediate Russian Language and Culture (Abroad) [COMM & LAN] (8.0 cr)

or **Spanish**

[SPAN 1201](#) - Intermediate Spanish I [LE CAT3, COMM & LAN] (4.0 cr)

[SPAN 1202](#) - Intermediate Spanish II [LE CAT3, LEIP CAT03, COMM & LAN] (4.0 cr)

#### Advanced Writing Requirement (3 cr)

[WRIT 31xx](#) - Adv Writing (3 cr)

## Duluth Campus

# History Minor

History

## College of Liberal Arts

- Program Type: Undergraduate minor related to major
- Requirements for this program are current for Fall 2016
- Required credits in this minor: 16 to 20

The history minor offers students an introduction to historical literature and methods while concentrating on three of five geographical fields within the history discipline: Africa, East Asia, Europe, the Middle East, and the United States.

## Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

## Minor Requirements

### Program Core Requirements (16-20 cr)

Take 16-20 or more credits from the following geographical areas (at least two different geographical areas must be represented). No more than two 1xxx level courses may be applicable. Students may elect to satisfy this requirement by taking all courses at the HIST 3xxx level or above from the lists below. HIST 2095 or 3095 (topic courses) may be applicable to an area with departmental approval. Take 16 - 20 credit(s) from the following:

#### Africa

Take 0 or more course(s) from the following:

- AAAS 1102 - Introduction to Atlantic Slave Trade [LE CAT7, LECD CAT07, CDIVERSITY] (3.0 cr)
- HIST 2515 - Precolonial Africa [LE CAT7, LECD CAT07, HUMANITIES] (4.0 cr)
- HIST 3615 - Modern Africa (4.0 cr)
- HIST 3616 - Society and Culture in 20th-Century Africa (4.0 cr)
- HIST 3695 - Special Topics African History (various titles to be assigned) (4.0 cr)

#### East Asia

Take 0 or more course(s) from the following:

- FORS 2030 - HIST 2030: China An Ancient Civilization (3.0 cr)
- HIST 1400 - Modern World History from 1500 to present [LE CAT7, LEIP CAT07, HUMANITIES] (4.0 cr)
- HIST 2405 - History of Chinese Culture (4.0 cr)
- HIST 2410 - Modern China, Japan, Korea, Vietnam and East Asia (4.0 cr)
- HIST 3463 - History of Modern China (4.0 cr)
- HIST 3465 - Twentieth Century China Politics (4.0 cr)
- HIST 3495 - Special Topics East Asian History (Various Titles to be Assigned) (4.0 cr)

#### Europe

Take 0 or more course(s) from the following:

- FORS 2025 - HIST 2025 History in Greece (3.0 cr)
- FORS 3006 - Hist 3235, History and Soccer (4.0 cr)
- HIST 1200 - World History to 1500: From Antiquity to the Age of Exploration [HUMANITIES] (4.0 cr)
- HIST 1207 - Dawn of Modern Europe [LE CAT7, HUMANITIES] (4.0 cr)
- HIST 1208 - Europe in the Modern Age [LE CAT7, HUMANITIES] (4.0 cr)
- HIST 2345 - Science and Society: 1500 to Present [LE CAT7, HUMANITIES] (4.0 cr)
- HIST 2365 - Russia in the 20th Century [LE CAT7, LEIP CAT07, GLOBAL PER] (4.0 cr)
- HIST 3107 - The World of Late Antiquity: From Constantine to Justinian (4.0 cr)
- HIST 3121 - The Age of the Heroes: Homer and his World (4.0 cr)
- HIST 3131 - The Roman Republic (4.0 cr)
- HIST 3133 - Ancient Greece from Homer to Alexander (4.0 cr)
- HIST 3141 - Ancient Rome: From Republic to Empire (4.0 cr)
- HIST 3195 - Special Topics European History (various titles to be assigned) (4.0 cr)
- HIST 3243 - Europe in Crisis in the 20th Century (4.0 cr)
- HIST 3244 - History of Holocaust (4.0 cr)
- HIST 3257 - Modern France (4.0 cr)
- HIST 3264 - Imperial Russia (4.0 cr)
- HIST 3939 - Europe in the Age of Renaissance and Reformation: 1348-1648 (4.0 cr)
- HIST 3940 - Early Modern England: 1485-1689 (4.0 cr)



•**Middle East**

Take 0 or more course(s) from the following:

- [HIST 1027](#) - Introduction to Islam [LE CAT7, LEIP CAT07, HUMANITIES] (4.0 cr)
- [HIST 2325](#) - Muslim Societies [LE CAT7, LEIP CAT07] (4.0 cr)
- [HIST 3035](#) - Ancient Warfare From Alexander to Mohammad (4.0 cr)
- [HIST 3038](#) - History of Christianity: Origins to 1054 (4.0 cr)
- [HIST 3055](#) - The Bible & Ancient Near East (4.0 cr)
- [HIST 3726](#) - Modern Middle East: 18th Century-Present (4.0 cr)
- [HIST 3795](#) - Special Topics Middle Eastern History (various titles to be assigned) (4.0 cr)
- [HIST 3825](#) - Islamic History from Muhammad to the Ottomans (4.0 cr)
- [HIST 4727](#) - Middle Eastern History Through Film [LEIP CAT07] (4.0 cr)

•**United States**

Take 0 or more course(s) from the following:

- [HIST 1304](#) - US History Part I: 1607-1877 [LE CAT7, HUMANITIES] (4.0 cr)
- [HIST 1305](#) - US History Part II: 1865-Present [LE CAT7, HUMANITIES] (4.0 cr)
- [HIST 1310](#) - Minnesota History (4.0 cr)
- [HIST 2350](#) - Nutrition and American History [HUMANITIES, SUSTAIN] (4.0 cr)
- [HIST 2355](#) - United States Military History [LE CAT7] (4.0 cr)
- [HIST 3310](#) - Colonial America: The American Revolution (4.0 cr)
- [HIST 3315](#) - Religion in Colonial America (4.0 cr)
- [HIST 3318](#) - Slavery, Lincoln and the Civil War (4.0 cr)
- [HIST 3320](#) - American Popular Culture, 1929 to the Present (4.0 cr)
- [HIST 3346](#) - History of Hollywood (4.0 cr)
- [HIST 3386](#) - The United States and the World since 1898 (4.0 cr)
- [HIST 3395](#) - Special Topics United States History (various titles to be assigned) (4.0 cr)
- [HIST 3396](#) - The Vietnam War (4.0 cr)



### **Duluth Campus**

## **Information Design Minor**

*English Linguistics and Writing Studies*

### **College of Liberal Arts**

- Program Type: Undergraduate free-standing minor
- Requirements for this program are current for Fall 2016
- Required credits in this minor: 18 to 20

The information design minor gives students 1) knowledge and experience with information technologies from a liberal arts perspective; 2) practice in applying principles of rhetoric, design, cultural theory, ethics, and creative thinking to the production of information-design projects; 3) the ability to write about and discuss information-design practices and digital culture in critically informed ways; 4) experience in developing successful creative relationships with writing/design communities, clients, audiences, and support staff; 5) skills in using a variety of software.

### **Program Delivery**

This program is available:

- via classroom (the majority of instruction is face-to-face)

### **Minor Requirements**

Students majoring in writing studies must complete a minor or second major in a field other than professional writing or information design.

#### **Core (12 cr)**

- [WRIT 1506](#) - Literacy, Technology and Society [LE CAT7, HUMANITIES] (3.0 cr)
- [WRIT 4230](#) - Web Design and Digital Culture (3.0 cr)
- [WRIT 4250](#) - New Media Writing (3.0 cr)
- [WRIT 4260](#) - Visual Rhetoric and Culture (3.0 cr)

#### **Related Field Electives (6-8 cr)**

Students must take two courses for a total of at least 6 credits in the following areas: ART, COMM, CS, FMIS, JOUR, SOC, STAT, or WRIT. (This excludes WRIT 1120.)

- ART 1xxx-5xxx
- COMM 1xxx-5xxx
- CS 1xxx-5xxx
- FMIS 1xxx-5xxx
- JOUR 1xxx-5xxx
- SOC 1xxx-5xxx
- STAT 1xxx-5xxx
- WRIT 1xxx-5xxx

## Duluth Campus

# Interdisciplinary Studies B.A.

College of Liberal Arts - Adm

## College of Liberal Arts

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 120
- Required credits within the major: 48
- Degree: Bachelor of Arts

The B.A. in interdisciplinary studies is for students whose educational objectives can best be met by integrating courses from three or more departments. The program provides the framework for study in selected interdisciplinary areas.

Unlike many UMD majors, interdisciplinary studies is available only by formal application and committee approval. Students cannot apply for a change of major until their program has been approved.

## Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

## Admission Requirements

Freshman and transfer students are usually admitted to pre-major status before admission to this major

A GPA above 2.0 is preferred for the following:

- 2.50 already admitted to the degree-granting college
- 2.50 transferring from another University of Minnesota college
- 2.50 transferring from outside the University

This major is unique because it is individually designed; students work with faculty advisors to create a field of study involving courses from several departments. It may encompass the natural sciences, social sciences, cultural studies, fine arts, technical and professional fields, or a combination of these.

The program admission application should be thought through carefully. Students who select this major must submit a statement of their educational objectives and a list of proposed courses to the committee for approval before they complete 70 credits with a cumulative GPA of 2.50. The list of courses for the major and a statement of purpose explains the student's rationale for the proposed program. Upon approval by the Interdisciplinary Studies Committee, it becomes an individualized program. A current transcript must be submitted with the application.

Visit the IS site for further information:  
[z.umn.edu/clais](http://z.umn.edu/clais)

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

## Required prerequisites

### Introductory Requirement (1 cr)

Transfer students with 24 or more credits and current UMD students who change colleges to CLA are exempt from this requirement. New first-year students with 24 or more PSEO credits may request to be waived from this requirement.

[UST 1000](#) - UMD Seminar (1.0 - 2.0 cr)

## General Requirements

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.

4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

## Program Requirements

1. Before completing 70 credits, applicants submit a statement of their educational objectives and a list of proposed courses to the Interdisciplinary Studies Committee for approval. Proposals are reviewed once a term at the end of the eighth week.
2. A cumulative U of M GPA of at least 2.50 is required with the application.
3. Within the proposal, at least 12 credits must be from CLA course offerings.

### Methods Course (3 cr)

All students are required to complete one research methods course appropriate to their final project before they register for senior project.

Take no more than 1 course(s) from the following:

- [COMM 2025](#) - Communication Inquiry: Rhetorical and Historical Methods (3.0 cr)
- [COMM 2030](#) - Communication Inquiry: Social Scientific Methods (3.0 cr)
- [ECON 3030](#) - Econometrics I (3.0 cr)
- [ENGL 3115](#) - Writing Fiction (4.0 cr)
- [ENGL 3121](#) - Writing Poetry (4.0 cr)
- [ENGL 3906](#) - Methods of Literary Study (4.0 cr)
- [GEOG 2552](#) - Introduction to Maps and Geospatial Information [LE CAT2, LOGIC & QR] (3.0 cr)
- [POL 2700](#) - Methodology and Analysis [LOGIC & QR] (4.0 cr)
- [PSY 3020](#) - Statistical Methods (4.0 cr)
- [SOC 2155](#) - Introduction to Research Methods and Analysis (4.0 cr)
- [WRIT 4300](#) - Research Methods for the Study of Writing (3.0 cr)

### Final Project (1 - 10 cr)

The senior project usually results in an academic paper of 15-30 pages. The project may be an internship, portfolio, exhibit, tour, or field study. The project includes a bibliography of library resources showing general knowledge of the topic and a written paper, report, journal, or analysis of how the program has affected one's personal and intellectual development. A copy of the project must be filed with the program director.

[IS 3093](#) - Senior Project (1.0 - 10.0 cr)

### Advanced Writing Requirement (3 cr)

[WRIT 31xx](#) - Adv Writing (3 cr)

### IS Proposed Electives (40 cr)

Students must complete a minimum of 40 upper division credits (3xxx or above) across three or more departments; twelve credits must be from CLA course offerings.

Visit the IS site for further information:

[z.umn.edu/clais](http://z.umn.edu/clais)



### **Duluth Campus**

## **International Studies B.A.**

*Political Science*

### **College of Liberal Arts**

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 120
- Required credits within the major: 42 to 56
- Degree: Bachelor of Arts

This interdisciplinary program provides students with a broad background in contemporary international affairs and the skills necessary to participate effectively in the global community. The program incorporates courses and faculty from many different departments and programs. Majors and minors are encouraged to incorporate a study abroad experience into their programs.

### **Program Delivery**

This program is available:

- via classroom (the majority of instruction is face-to-face)

### **Admission Requirements**

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

#### **Required prerequisites**

##### **Introductory Requirement (1 cr)**

Transfer students with 24 or more credits and current UMD students who change colleges to CLA are exempt from this requirement. New first-year students with 24 or more PSEO credits may request to be waived from this requirement.

[UST 1000](#) - UMD Seminar (1.0 - 2.0 cr)

### **General Requirements**

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

### **Program Requirements**

1. Majors must complete a second language - an international language offered by university Departments of Foreign Languages - through the intermediate-level sequence. Students should consult the UMD Department of Foreign Languages and Literatures about placement. If English is the non-native language, students must take additional courses in writing or English in consultation with the INTS director. Bilingual students must be able to demonstrate both verbal and writing skills.
2. A second field of study (either a minor or another major).

3. Students are encouraged to study abroad. Course work taken abroad may be applicable to the major with approval from the INTS director.

**Lower Division Core Requirement (13 cr)**

- ANTH 1604 - Cultural Anthropology [LE CAT6, LEIP CAT06, SOC SCI, GLOBAL PER] (4.0 cr)
- GEOG 1202 - World Regional Geography [LE CAT8, LEIP CAT08, GLOBAL PER] (3.0 cr)
- INTS 1010 - Introduction to International Studies [GLOBAL PER] (3.0 cr)
- POL 1050 - International Relations [LE CAT8, LEIP CAT08, GLOBAL PER] (3.0 cr)

**Upper Division Core Requirement (4 cr)**

- INTS 4100 - Seminar in International Studies (4.0 cr)

**International Language Requirement (0-8 cr)**

Majors must complete a second language - an international language offered by university Departments of Foreign Languages - through the intermediate-level sequence. Students should consult the UMD Department of Foreign Languages and Literatures about placement. If English is the non-native language, students must take additional courses in writing or English in consultation with the INTS director. Bilingual students must be able to demonstrate both verbal and writing skills.

**CHIN 1103/1104**

- CHIN 1103 - Beginning Chinese III: A Practical Introduction to Everyday Mandarin Chinese [LE CAT3, COMM & LAN] (4.0 cr)
- CHIN 1104 - Beginning Chinese IV: A Practical Introduction to Everyday Mandarin Chinese [LE CAT3, COMM & LAN] (4.0 cr)

or **FR 1201/1202**

- FR 1201 - Intermediate French I [LE CAT3, COMM & LAN] (4.0 cr)
- FR 1202 - Intermediate French II [LE CAT3, LEIP CAT03, COMM & LAN] (4.0 cr)

or **GER 1201/1202**

- GER 1201 - Intermediate German I [LE CAT3, COMM & LAN] (4.0 cr)
- GER 1202 - Intermediate German II [LE CAT3, LEIP CAT03, COMM & LAN] (4.0 cr)

or **RUSS 1210 (FORS 1210)**

Intermediate Russian Language sequence at the College of St. Scholastica (through inter-institutional cross-registration) (8.0 cr) or UMD Summer Abroad Experience:

- RUSS 1210/FORS 1210 - Intermediate Russian Language and Culture (Abroad) [COMM & LAN] (8.0 cr)

or **SPAN 1201/1202**

- SPAN 1201 - Intermediate Spanish I [LE CAT3, COMM & LAN] (4.0 cr)
- SPAN 1202 - Intermediate Spanish II [LE CAT3, LEIP CAT03, COMM & LAN] (4.0 cr)

**Thematic Electives (12-15 cr)**

To complete this requirement take at least 4 courses. Students are advised to take courses from different designators/subjects. Students may apply study abroad or INTS courses with approval from the INTS director.

Take 4 or more course(s) from the following:

- AMIN 3430 - Global Indigenous Studies [GLOBAL PER] (3.0 cr)
- ANTH 3628 - Women in Cross-Cultural Perspective (3.0 cr)
- COMM 3535 - Intercultural Communication [LE CAT6, LEIP CAT06, CDIVERSITY] (4.0 cr)
- ECON 3150 - Development Economics (3.0 cr)
- GEOG 3461 - Geography of Global Resources [SUSTAIN] (3.0 cr)
- HIST 3386 - The United States and the World since 1898 (4.0 cr)
- POL 3403 - American Foreign Policy (3.0 cr)
- POL 3420 - International Organization and Global Governance (3.0 cr)
- POL 3430 - Global Health Politics (3.0 cr)
- POL 3451 - Theories of International Relations (4.0 cr)
- POL 3456 - International Security: War and More (4.0 cr)
- POL 3530 - Comparative Constitutional Law and Judicial Politics (3.0 cr)
- POL 3570 - Politics of Developing Nations (3.0 cr)
- POL 3575 - Latin American Politics and Development (4.0 cr)
- SOC 3945 - Social Stratification (3.0 cr)
- WS 3000 - Transnational Perspectives on Feminism [SOC SCI, GLOBAL PER] (3.0 cr)
- WS 3001 - Gender Relations in the Global South [GLOBAL PER] (3.0 cr)
- WS 3250 - Women, Peace and War [GLOBAL PER] (3.0 cr)
- WS 3896 - International Fieldwork in Women's Studies (1.0 - 3.0 cr)

**Regional Electives (9-12 cr)**

To complete this requirement take at least 3 courses from two regional fields. Students may apply study abroad or INTS courses with approval from the INTS director.

Take 3 or more course(s) from the following:

**Western European Nations**

Take 0 or more course(s) from the following:

- ENGL 3501 - British Literature I [HUMANITIES] (4.0 cr)



- ENGL 3502 - British Literature II [HUMANITIES] (4.0 cr)
- ENGL 5566 - Irish Literary Revival (4.0 cr)
- ENGL 5583 - British Novel (4.0 cr)
- FR 2315 - French Cinema [LE CAT9, LEIP CAT09, HUMANITIES] (4.0 cr)
- FR 4412 - Contemporary French Culture and Society [HUMANITIES, GLOBAL PER] (4.0 cr)
- FR 4422 - 20th-Century Novel [HUMANITIES] (4.0 cr)
- GER 2402 - Germany Today [LE CAT8, LEIP CAT08, HUMANITIES] (3.0 cr)
- GER 4302 - German Women Writers and Filmmakers [HUMANITIES] (4.0 cr)
- GER 4305 - German Cinema [HUMANITIES] (4.0 cr)
- GER 4404 - Contemporary Germany [HUMANITIES, GLOBAL PER] (4.0 cr)
- HIST 3243 - Europe in Crisis in the 20th Century (4.0 cr)
- HIST 3244 - History of Holocaust (4.0 cr)
- HIST 3257 - Modern France (4.0 cr)
- POL 3517 - Western European Political Systems (4.0 cr)
- SPAN 3044 - Civilization, Cultures and Communities of Spain [HUMANITIES, GLOBAL PER] (4.0 cr)
- SPAN 4027 - Contemporary Literature and Culture of Spain [HUMANITIES] (4.0 cr)
- SPAN 4028 - Literature and Culture of Spain 18th to the 20th Century [HUMANITIES] (4.0 cr)
- SPAN 4030 - Cinema and Culture of Spain [FINE ARTS] (4.0 cr)
- Russia and Eastern Europe**  
Take 0 or more course(s) from the following:
  - HIST 2365 - Russia in the 20th Century [LE CAT7, LEIP CAT07, GLOBAL PER] (4.0 cr)
  - HIST 3264 - Imperial Russia (4.0 cr)
- Latin America and Central America**  
Take 0 or more course(s) from the following:
  - ANTH 3632 - Latin American Cultures (3.0 cr)
  - GEOG 3712 - Geography of Latin America (3.0 cr)
  - POL 3580 - Central American Politics (4.0 cr)
  - SPAN 3042 - Hispanic American Civilization and Culture [HUMANITIES, GLOBAL PER] (4.0 cr)
  - SPAN 4011 - Hispanic American Prose [HUMANITIES] (4.0 cr)
  - SPAN 4017 - Hispanic American Cinema and Culture [FINE ARTS] (4.0 cr)
  - SPAN 4018 - Hispanic America From Within [HUMANITIES] (4.0 cr)
  - SPAN 4019 - Seminar: Hispanic America in the 21st Century [HUMANITIES] (4.0 cr)
  - WS 3002 - Latin American Women: Culture and Politics (3.0 cr)
- Asia and the Middle East**  
Take 0 or more course(s) from the following:
  - ANTH 3638 - Peoples and Cultures of the Middle East (3.0 cr)
  - HIST 2325 - Muslim Societies [LE CAT7, LEIP CAT07] (4.0 cr)
  - HIST 3825 - Islamic History from Muhammad to the Ottomans (4.0 cr)
  - HIST 3726 - Modern Middle East: 18th Century-Present (4.0 cr)
  - POL 3518 - Transitional Politics of Asia (3.0 cr)
- Africa**  
Take 0 or more course(s) from the following:
  - HIST 2515 - Precolonial Africa [LE CAT7, LECD CAT07, HUMANITIES] (4.0 cr)
  - HIST 3615 - Modern Africa (4.0 cr)
  - HIST 3616 - Society and Culture in 20th-Century Africa (4.0 cr)
  - POL 3525 - African Politics (3.0 cr)
  - WS 3750 - Voices of African Women [GLOBAL PER] (3.0 cr)

**Advanced Writing Requirement (3 cr)**

WRIT 31xx - Adv Writing (3 cr)



**Duluth Campus**

## International Studies Minor

*Political Science*

### College of Liberal Arts

- Program Type: Undergraduate minor related to major
- Requirements for this program are current for Fall 2016
- Required credits in this minor: 25

The international studies minor increases students' familiarity with their global surroundings and their understanding of important global issues and concerns. It provides them with an awareness of various aspects of international relations and an appreciation of the challenges and opportunities confronting specific world regions.

### Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

### Minor Requirements

Foreign language study is strongly recommended.

A study abroad experience is encouraged.

#### Lower Division Core Requirements (13 cr)

[ANTH 1604](#) - Cultural Anthropology [LE CAT6, LEIP CAT06, SOC SCI, GLOBAL PER] (4.0 cr)

[GEOG 1202](#) - World Regional Geography [LE CAT8, LEIP CAT08, GLOBAL PER] (3.0 cr)

[INTS 1010](#) - Introduction to International Studies [GLOBAL PER] (3.0 cr)

[POL 1050](#) - International Relations [LE CAT8, LEIP CAT08, GLOBAL PER] (3.0 cr)

#### Upper Division Electives (12 cr)

Students propose 12 credits at or above the 2xxx level with no more than two courses from the same designator or subject. One proposed course can be applicable to another major, minor, or certificate. The courses can be chosen from the international studies major electives or study abroad coursework. Other courses must be approved by the Int'l Studies director prior to the completion of the courses. Courses already completed may not be accepted. Short term study abroad programs may be applicable. One proposed course must be at the 3xxx level or higher for at least 3 credits.



## Duluth Campus

# Journalism B.A.

Communication

## College of Liberal Arts

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 41
- Required credits within the major: 120
- Degree: Bachelor of Arts

In an ever-changing media environment, the journalism major is designed to be innovative and dynamic, while adhering to a critical understanding of media's role in a diverse, global society. The major emphasizes community engagement and global competence. Our program gives students a toolbox of skills and a critical study of mass media. The B.A. in journalism starts with courses in journalism and communication that provide a core set of skills and a critical exploration of journalism. It then requires students to create a program of study that offers flexibility in how they apply journalism. These skills are further honed through application in a professional media setting. This degree requires students to choose either a minor or a second major that will further complement a student's journalistic expertise.

Students take courses from four categories:

**Craft:** courses in journalism and communication that develop skills in the practice of journalism.

**Critical Inquiry:** courses in journalism and communication that offer critical and theoretical study of journalism and mass media.

**Application:** courses where students apply their skills in a real-world situation through a practicum class, an internship, or working at campus media (e.g. The Statesman, KUMD). This is the capstone experience.

**Electives:** courses that allow students to specialize their journalism studies based on their skills, interests and long-term goals. These courses come primarily from JOUR and COMM, but they can also be interdisciplinary, including choices such as cultural entrepreneurship, writing studies, English, and art.

## Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

## Admission Requirements

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

### Required prerequisites

#### Introductory Requirement (1 cr)

Transfer students with 24 or more credits and current UMD students who change colleges to CLA are exempt from this requirement. New first-year students with 24 or more PSEO credits may request to be waived from this requirement.

[UST 1000](#) - UMD Seminar (1.0 - 2.0 cr)

## General Requirements

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.



8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

## Program Requirements

A second field of study (either a minor or another major) is required.

### Core (22 cr)

The following craft and critical inquiry courses are required for all students in the major. Students are also required to take an application course.

#### Craft Core (13 cr)

[JOUR 2001](#) - Introduction to Journalism (3.0 cr)

[JOUR 2101](#) - Journalist's Toolbox (3.0 cr)

[JOUR 3401](#) - Digital Storytelling (4.0 cr)

#### One course required:

[COMM 3505](#) - Media Communications (3.0 cr)

or [JOUR 3001](#) - Local Journalism (3.0 cr)

or [JOUR 4001](#) - Specialized Reporting: Narrative Nonfiction (3.0 cr)

or [JOUR 4021](#) - Outdoor and Environmental Journalism (3.0 cr)

#### Critical Inquiry Core (6 cr)

Students take two courses totaling 6 credits.

[JOUR 2400](#) - Community and Journalism [GLOBAL PER] (3.0 cr)

or [JOUR 2501](#) - History of American Media (3.0 cr)

or [JOUR 3700](#) - Media Law and Ethics (3.0 cr)

#### Application Core (3 cr)

[JOUR 4102](#) - Newsroom Practicum (3.0 cr)

or [JOUR 4197](#) - Journalism Internship (1.0 - 3.0 cr)

### Electives (15 credits)

Courses that allow students to specialize their journalism studies based on their skills, interests and long-term goals. At least two courses must come from JOUR. Remaining courses may come primarily from JOUR and COMM, but they can be interdisciplinary.

#### Journalism electives

Take 2 or more course(s) from the following:

•[JOUR 2xxx](#)

•[JOUR 3xxx](#)

•[JOUR 4xxx](#)

#### Complementary electives

Students are encouraged to look campuswide for complementary courses. Choices such as cultural entrepreneurship (CUE), writing studies (WRIT), English (ENGL), and art (ART) or other relevant coursework, may apply with departmental approval. Students are encouraged to meet with their advisor about their elective choices. Extra JOUR courses will apply here.

Take no more than 3 course(s) from the following:

•[ART 1605](#) - Fundamentals of Photography [LE CAT10, FINE ARTS] (3.0 cr)

•[ART 2040](#) - Digital Filmmaking: Visual Narratives (3.0 cr)

•[COMM 2101](#) - Foundations of Mass Communication [LE CAT8, SOC SCI] (3.0 cr)

•[COMM 3211](#) - Communication and Technology in the Information Age (3.0 cr)

•[COMM 3405](#) - Health Campaigns (3.0 cr)

•[COMM 3505](#) - Media Communications (3.0 cr)

•[COMM 3520](#) - Media Effects [SOC SCI] (3.0 cr)

•[COMM 3525](#) - Deciding What's News (3.0 cr)

•[COMM 3550](#) - Children and Media (3.0 cr)

•[COMM 3615](#) - Analysis of Public Discourse (3.0 cr)

•[COMM 4505](#) - Media Theory and Research (3.0 cr)

•[JOUR 2xxx](#)

•[JOUR 3xxx](#)

•[JOUR 4xxx](#)

•[WRIT 1506](#) - Literacy, Technology and Society [LE CAT7, HUMANITIES] (3.0 cr)

•[WRIT 4100](#) - Introduction to Grant Writing and Project Planning (3.0 cr)

•[WRIT 4250](#) - New Media Writing (3.0 cr)

### Advanced Writing (3 cr)

[WRIT 31xx](#) - Adv Writing (3 cr)



### **Duluth Campus**

## **Journalism Minor**

*English Linguistics and Writing Studies*

### **College of Liberal Arts**

- Program Type: Undergraduate minor related to major
- Requirements for this program are current for Fall 2016
- Required credits in this minor: 21

The journalism minor provides a foundation in reporting and editing skills for students interested in jobs requiring strong writing and copy editing skills.

### **Program Delivery**

This program is available:

- via classroom (the majority of instruction is face-to-face)

### **Minor Requirements**

Students majoring in Writing Studies in either emphasis (Professional Writing or Journalism) must complete a minor or second major in a field other than Journalism, Professional Writing, or Information Design.

#### **Core Courses (12 cr)**

[JOUR 2001](#) - Introduction to Journalism (3.0 cr)

[JOUR 2101](#) - Journalist's Toolbox (3.0 cr)

[JOUR 3001](#) - Local Journalism (3.0 cr)

[JOUR 3700](#) - Media Law and Ethics (3.0 cr)

#### **Electives (9 cr)**

Take at least three different JOUR course(s) totaling nine credits from the following: JOUR 1xxx - 5xxx  
(Students may substitute relevant WRIT or LING courses with department consent.)

### Duluth Campus

## Latin American Studies B.A.

Foreign Languages & Literatures

### College of Liberal Arts

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 120
- Required credits within the major: 32 to 51
- This program requires summer terms.
- A study abroad experience or internship in Latin America or U.S. Latino community is required.
- Degree: Bachelor of Arts

This program prepares students to thrive as globally competent citizens through in-depth encounters with Latin American cultures.

Majors develop Spanish language communication skills. Topics studied pertain to Latin American literature, history, politics, and arts. The emphasis of this program is students' ability to analyze and articulate their understanding of the role that race, class, gender, sustainability, and human rights play in Spanish-speaking North America, Central America, South America and the Caribbean.

This major prepares graduates to be cross-culturally competent, global citizens who can apply their skills, knowledge, cultural awareness, and social commitment to a wide variety of local, regional, national, or international career choices (including law, government, non-governmental organizations) and graduate or professional programs.

A study abroad experience or internship in Latin America or U.S. Latino community is required.

### Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

### Admission Requirements

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

#### Required prerequisites

##### Introductory Requirement (1 cr)

Transfer students with 24 or more credits and current UMD students who change colleges to CLA are exempt from this requirement. New first-year students with 24 or more PSEO credits may request to be waived from this requirement.

[UST 1000](#) - UMD Seminar (1.0 - 2.0 cr)

### General Requirements

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

## Program Requirements

1. A study abroad experience or internship in Latin America or US Latino community is required.
2. A second field of study (either a minor or another major).
3. Students majoring in LAS cannot minor in Hispanic studies, but may double major.
4. Students double majoring in LAS and Hispanic studies must have a third field of study (another major or minor).

### Required Language Core (0-16 cr)

Students with previous language study may be exempt from some core requirements and should consult the department about placement.

- [SPAN 1101](#) - Beginning Spanish I [LE CAT3, COMM & LAN] (4.0 cr)
- [SPAN 1102](#) - Beginning Spanish II [LE CAT3, COMM & LAN] (4.0 cr)
- [SPAN 1201](#) - Intermediate Spanish I [LE CAT3, COMM & LAN] (4.0 cr)
- [SPAN 1202](#) - Intermediate Spanish II [LE CAT3, LEIP CAT03, COMM & LAN] (4.0 cr)

### Required Core (12 cr)

- [SPAN 2301](#) - Advanced Spanish [LE CAT3, LEIP CAT03, COMM & LAN] (4.0 cr)
- [SPAN 2550](#) - Globalization and Sustainability in Latin America [SUSTAIN] (4.0 cr)
- [SPAN 3042](#) - Hispanic American Civilization and Culture [HUMANITIES, GLOBAL PER] (4.0 cr)

### Required Experience (3 - 6 cr)

A study abroad experience or internship in Latin America or US Latino community is required. Internships must be at least 3 credits to satisfy this requirement. Students may select from the program list below or consult with an LAS advisor for other options.

- [FORS 3200](#) - ANTH 3200 Exploring Sustainability in Costa Rica (4.0 cr)
- or [FORS 3205](#) - GEOG 3205 Mapping in Belize (3.0 cr)
- or [FST 4266](#) - INTB 4495 Economic and Business Development in Peru (3.0 cr)
- or [SPAN 3097](#) - Internship (1.0 - 6.0 cr)

### Required Electives (13 cr)

Other UMD courses that pertain to Latin America may be approved by an LAS advisor.

Take 13 or more credit(s) from the following:

- [ANTH 3618](#) - Ancient Middle America (3.0 cr)
- [ANTH 3632](#) - Latin American Cultures (3.0 cr)
- [ARTH 3110](#) - Art of the Ancient Americas (3.0 cr)
- [ARTH 3120](#) - Art of Colonial Latin America (3.0 cr)
- [ARTH 3130](#) - Modern and Contemporary Mexican Art (3.0 cr)
- [ARTH 3140](#) - Women in Art/Visual Culture in Latin America (3.0 cr)
- [ARTH 4693](#) - Directed Study Latin American Art (1.0 - 3.0 cr)
- [GEOG 3712](#) - Geography of Latin America (3.0 cr)
- [POL 3575](#) - Latin American Politics and Development (4.0 cr)
- [POL 3580](#) - Central American Politics (4.0 cr)
- [SPAN 2540](#) - Latino Literatures and Cultures [LE CAT8, LECD CAT08, HUMANITIES, CDIVERSITY] (4.0 cr)
- [SPAN 3097](#) - Internship (1.0 - 6.0 cr)
- [SPAN 4011](#) - Hispanic American Prose [HUMANITIES] (4.0 cr)
- [SPAN 4013](#) - Hispanic American Poetry and Drama [HUMANITIES] (4.0 cr)
- [SPAN 4017](#) - Hispanic American Cinema and Culture [FINE ARTS] (4.0 cr)
- [SPAN 4018](#) - Hispanic America From Within [HUMANITIES] (4.0 cr)
- [SPAN 4019](#) - Seminar: Hispanic America in the 21st Century [HUMANITIES] (4.0 cr)
- [WS 3001](#) - Gender Relations in the Global South [GLOBAL PER] (3.0 cr)
- [WS 3002](#) - Latin American Women: Culture and Politics (3.0 cr)

### Advanced Writing Requirement (3 cr)

Recommended: WRIT 3100 - Advanced Writing: Language and Literature  
WRIT 31xx - Adv Writing (3 cr)

### Duluth Campus

## Latin American Studies Minor

Foreign Languages & Literatures

### College of Liberal Arts

- Program Type: Undergraduate minor related to major
- Requirements for this program are current for Fall 2016
- Required credits in this minor: 18 to 34

This program prepares students to thrive as globally competent citizens through in-depth encounters with Latin American cultures.

Students develop Spanish language communication skills. Topics studied pertain to Latin American literature, history, politics, and arts. The emphasis of this program is students' ability to analyze and articulate their understanding of the role that race, class, gender, sustainability, and human rights play in Spanish-speaking North America, Central America, South America and the Caribbean.

Latin American Studies begins to prepare graduates to be cross-culturally competent, global citizens who can apply their skills, knowledge, cultural awareness, and social commitment to a wide variety of local, regional, national or international career choices (including law, government, non-governmental organizations) and graduate or professional programs.

A study abroad experience or internship in Latin America or United States Latino community is encouraged, but not required for the minor.

### Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

### Minor Requirements

#### Required Language Core (0 - 16 cr)

Students with previous language study may be exempt from some core requirements and should consult the department about placement.

- [SPAN 1101](#) - Beginning Spanish I [LE CAT3, COMM & LAN] (4.0 cr)
- [SPAN 1102](#) - Beginning Spanish II [LE CAT3, COMM & LAN] (4.0 cr)
- [SPAN 1201](#) - Intermediate Spanish I [LE CAT3, COMM & LAN] (4.0 cr)
- [SPAN 1202](#) - Intermediate Spanish II [LE CAT3, LEIP CAT03, COMM & LAN] (4.0 cr)

#### Required Core (12 cr)

- [SPAN 2301](#) - Advanced Spanish [LE CAT3, LEIP CAT03, COMM & LAN] (4.0 cr)
- [SPAN 2550](#) - Globalization and Sustainability in Latin America [SUSTAIN] (4.0 cr)
- [SPAN 3042](#) - Hispanic American Civilization and Culture [HUMANITIES, GLOBAL PER] (4.0 cr)

#### Electives (6 cr)

Other UMD courses that pertain to Latin America may be approved by an LAS advisor.

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

- [ANTH 3618](#) - Ancient Middle America (3.0 cr)
- [ANTH 3632](#) - Latin American Cultures (3.0 cr)
- [ARTH 3110](#) - Art of the Ancient Americas (3.0 cr)
- [ARTH 3120](#) - Art of Colonial Latin America (3.0 cr)
- [ARTH 3130](#) - Modern and Contemporary Mexican Art (3.0 cr)
- [ARTH 3140](#) - Women in Art/Visual Culture in Latin America (3.0 cr)
- [ARTH 4693](#) - Directed Study Latin American Art (1.0 - 3.0 cr)
- [FORS 3200](#) - ANTH 3200 Exploring Sustainability in Costa Rica (4.0 cr)
- [FORS 3205](#) - GEOG 3205 Mapping in Belize (3.0 cr) (summer)
- [FST 4266](#) - INTB 4495 Economic and Business Development in Peru (3.0 cr)
- [GEOG 3712](#) - Geography of Latin America (3.0 cr)
- [POL 3575](#) - Latin American Politics and Development (4.0 cr)
- [POL 3580](#) - Central American Politics (4.0 cr)



- [SPAN 2540](#) - Latino Literatures and Cultures [LE CAT8, LECD CAT08, HUMANITIES, CDIVERSITY] (4.0 cr)
- [SPAN 3097](#) - Internship (1.0 - 6.0 cr)
- [SPAN 4011](#) - Hispanic American Prose [HUMANITIES] (4.0 cr)
- [SPAN 4013](#) - Hispanic American Poetry and Drama [HUMANITIES] (4.0 cr)
- [SPAN 4017](#) - Hispanic American Cinema and Culture [FINE ARTS] (4.0 cr)
- [SPAN 4018](#) - Hispanic America From Within [HUMANITIES] (4.0 cr)
- [SPAN 4019](#) - Seminar: Hispanic America in the 21st Century [HUMANITIES] (4.0 cr)
- [WS 3001](#) - Gender Relations in the Global South [GLOBAL PER] (3.0 cr)
- [WS 3002](#) - Latin American Women: Culture and Politics (3.0 cr)



### **Duluth Campus**

## **Lesbian, Gay, Bisexual, Transgender, and Queer Studies Minor**

*Women, Gender & Sexuality Studies*

### **College of Liberal Arts**

- Program Type: Undergraduate free-standing minor
- Requirements for this program are current for Fall 2016
- Required credits in this minor: 16

This program investigates historical, social, cultural, and theoretical representations and constructions of lesbian, gay, bisexual, transgender, queer, and intersex life in the U.S. and around the globe. Operating from the intersections of race, class, economic status, age, ability, and nationality among other configurations of identity, this program situates questions of sexual and gender orientation as fundamental to humanistic study, and is not limited to those who claim an LGBTQ or intersex identity. This program's interdisciplinary approach connects fields in the humanities, social sciences, life sciences, and fine arts, and produces knowledge beneficial to all fields.

### **Program Delivery**

This program is available:

- via classroom (the majority of instruction is face-to-face)

### **Minor Requirements**

#### **Required Core (10 cr)**

[LGBT 3000](#) - Queer Theory (3.0 cr)

[WS 1000](#) - Introduction to Women's and Gender Studies [LE CAT7, LECD CAT07, CULT DIV, SOC SCI, CDIVERSITY] (3.0 cr)

[WS 2001](#) - Introduction to Lesbian Gay Bisexual and Transgender Studies [LE CAT8, LECD CAT08, CDIVERSITY] (4.0 cr)

#### **Electives (6 cr)**

Any LGBT 31xx course will apply here.

Take 6 or more credit(s) from the following:

- [LGBT 3151](#) - Queer Cinema in International Perspective [GLOBAL PER] (3.0 cr)
- [LGBT 3152](#) - History of the International Homosexual Rights Movement (1895 - present) [GLOBAL PER] (3.0 cr)
- [LGBT 3153](#) - Queer Media [CDIVERSITY] (3.0 cr)

## Duluth Campus

### Linguistics B.S.

*English Linguistics and Writing Studies*

#### College of Liberal Arts

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 120
- Required credits within the major: 48 to 53
- Degree: Bachelor of Science

The B.S. in linguistics prepares students to undertake the study of language in a rigorous, scientific manner. The major offers basic and advanced courses in the sound, structure, and meaning of language, and it teaches students the fundamental methods of scientific inquiry. The curriculum focuses on both the internal place of language in the human mind and brain, as well as the external role of language in communication and culture. Along the way, students will consider many topics in linguistics, such as syntactic structure of languages, semantic and pragmatic meaning, language acquisition, language disorders, language evolution, dialects and sociolinguistic variation, language and gender, computational linguistics, and many others. With topics such as these in mind, students will be trained to form research questions, gather data, and make arguments based upon their observations. They will also gain experience working with a wide range of languages and diverse cultures. The program will also require a background in science and mathematics consistent with a bachelor of science degree, which will allow students a straightforward double major in many of the established science majors at the University.

There is a diversity of employment opportunities for linguistics majors. The analytical skills and experience with language makes linguistic majors particularly appealing to computer and software companies, as writers and analysts of all types, in education, in projects such as speech recognition and machine translation, and as preparation for advanced study in all of the liberal arts, social sciences, and computer sciences disciplines. Finally, the United States Department of Homeland Security and federal law enforcement agencies routinely hire employees trained in linguistics.

### Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

### Admission Requirements

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

### General Requirements

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

### Program Requirements

1. A second field of study (either a minor or another major).

**Core Requirements (9 cr)**

- LING 1811 - Introduction to Linguistics [LE CAT2, LOGIC & QR] (3.0 cr)
- LING 3102 - Introduction to Syntax (3.0 cr)
- LING 3103 - Dimensions of Meaning (3.0 cr)

**Mathematics Requirements (8 - 10 cr)**

- Take one of the following sequences (two courses).
- MATH 1290 - Calculus for the Natural Sciences [LE CAT2, LOGIC & QR] (5.0 cr)  
or MATH 1296 - Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)  
or MATH 1596 - Honors: Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)
  - MATH 1297 - Calculus II [LOGIC & QR] (5.0 cr)  
or MATH 1597 - Honors: Calculus II [LOGIC & QR] (5.0 cr)  
or STAT 2411 - Statistical Methods [LE CAT2, LOGIC & QR] (3.0 cr)

**Natural Science Requirement (7 - 10 cr)**

Take one of the following sequences.

**Biology**

- BIOL 1011 - General Biology I [LE CAT4, NAT SCI] (5.0 cr)
- BIOL 1012 - General Biology II [SUSTAIN] (5.0 cr)

or **Chemistry**

- CHEM 1153 - General Chemistry I [LE CAT5, NAT SCI] (4.0 cr)
- CHEM 1154 - General Chemistry Lab I [LE CAT4, NAT SCI] (1.0 cr)
- CHEM 1155 - General Chemistry II (4.0 cr)
- CHEM 1156 - General Chemistry Lab II (1.0 cr)

or **Geography**

- GEOG 1414 - Physical Geography [LE CAT4, NAT SCI, SUSTAIN] (4.0 cr)
- GEOG 3401 - Weather and Climate (3.0 cr)  
or GEOG 3422 - Natural Hazards (3.0 cr)

or **Geology**

- GEOL 1110 - Geology and Earth Systems [LE CAT4, NAT SCI, SUSTAIN] (4.0 cr)
- GEOL 2311 - Mineralogy (4.0 cr)  
or GEOL 2312 - Petrology (5.0 cr)

or **Physics**

- PHYS 2013 - General Physics I [LE CAT5, NAT SCI] (4.0 cr)
- PHYS 2014 - General Physics Lab I [NAT SCI] (1.0 cr)
- PHYS 2015 - General Physics II (4.0 cr)
- PHYS 2016 - General Physics Lab II (1.0 cr)
- or PHYS 2017 - Honors: General Physics I [NAT SCI] (4.0 cr)
- PHYS 2018 - Honors General Physics II (4.0 cr)

**Technical/Math or Natural Sciences (6 cr)**

Two additional courses from technical/math or natural sciences. Courses taken above cannot apply here. Courses may be from one area or across fields of study.

Take no more than 2 course(s) totaling 6 or more credit(s) from the following:

- BIOL 2xxx
- BIOL 3xxx
- CHEM 2xxx
- CHEM 3xxx
- CS 1xxx
- CS 2xxx
- CS 3xxx
- GEOG 2552 - Introduction to Maps and Geospatial Information [LE CAT2, LOGIC & QR] (3.0 cr)
- GEOG 3532 - Map Design and Geographic Visualization (4.0 cr)
- GEOL 2xxx
- GEOL 3xxx
- GIS 3xxx
- MATH 3xxx
- MATH 4xxx
- PHYS 3xxx
- PHYS 4xxx
- STAT 1xxx
- STAT 2xxx



- STAT 3xxx
- STAT 4xxx
- STAT 5xxx

### Linguistics and External Electives Total (15 cr)

Within these 15 credits, 9 credits must be from linguistics in addition to the core. Two courses from the 'External Electives' may apply towards this requirement.

#### Linguistics Electives

Most LING 2xxx-4xxx courses apply here.

Take 9 or more credit(s) from the following:

- LING 2195 - Special Topics: (Various Titles to be Assigned) (3.0 cr)
- LING 2506 - Language and Writing (3.0 cr)
- LING 3101 - Introduction to Phonology (3.0 cr)
- LING 3591 - Independent Study in Linguistics (1.0 - 3.0 cr)
- LING 4103 - Morphology: Word Structures and Rules (3.0 cr)
- LING 4195 - Special Topics: (Various Titles to be Assigned) (1.0 - 4.0 cr)
- LING 4400 - Sociolinguistics (3.0 cr)
- LING 4852 - Teaching Assistantship in Linguistics (1.0 - 3.0 cr)

#### •External Electives (optional)

NOTE: The intermediate Russian language sequence is available through the College of St. Scholastica or by studying abroad (available summer).

Take no more than 2 course(s) from the following:

- AMIN 2103 - Intermediate Ojibwe I [LE CAT3, LECD CAT03, COMM & LAN] (3.0 cr)
- AMIN 2104 - Intermediate Ojibwe II [LE CAT3, LECD CAT03, COMM & LAN] (3.0 cr)
- ASL 3003 - Intermediate American Sign Language I [COMM & LAN] (3.0 cr)
- ASL 3004 - Intermediate American Sign Language II [COMM & LAN] (3.0 cr)
- CS 5541 - Artificial Intelligence (4.0 cr)
- CS 5751 - Introduction to Machine Learning (4.0 cr)
- CS 5761 - Introduction to Natural Language Processing (4.0 cr)
- ENGL 5821 - History of the English Language (4.0 cr)
- FORS 1110 - RUSS 1110 Beginning Russian Language and Culture (Abroad) [COMM & LAN] (8.0 cr)
- FR 1201 - Intermediate French I [LE CAT3, COMM & LAN] (4.0 cr)
- FR 1202 - Intermediate French II [LE CAT3, LEIP CAT03, COMM & LAN] (4.0 cr)
- FR 2301 - Advanced French [LE CAT3, LEIP CAT03, COMM & LAN] (4.0 cr)
- GER 1201 - Intermediate German I [LE CAT3, COMM & LAN] (4.0 cr)
- GER 1202 - Intermediate German II [LE CAT3, LEIP CAT03, COMM & LAN] (4.0 cr)
- GER 2301 - Advanced German [LE CAT3, LEIP CAT03, COMM & LAN] (4.0 cr)
- PHIL 1025 - Introduction to Cognitive Science [NAT SCI] (3.0 cr)
- PHIL 2011 - Philosophy of Language [LE CAT3, SOC SCI] (3.0 cr)
- PSY 3621 - Cognition (4.0 cr)
- PSY 3661 - Psychology of Language (3.0 cr)
- SPAN 1201 - Intermediate Spanish I [LE CAT3, COMM & LAN] (4.0 cr)
- SPAN 1202 - Intermediate Spanish II [LE CAT3, LEIP CAT03, COMM & LAN] (4.0 cr)
- SPAN 2301 - Advanced Spanish [LE CAT3, LEIP CAT03, COMM & LAN] (4.0 cr)

#### Advanced Writing Requirement (3 cr)

WRIT 31xx - Adv Writing (3 cr)



## Duluth Campus

### Linguistics Minor

*English Linguistics and Writing Studies*

#### College of Liberal Arts

- Program Type: Undergraduate free-standing minor
- Requirements for this program are current for Fall 2016
- Required credits in this minor: 20

This minor emphasizes two important facets of human language—the mathematical and social aspects of language. To understand the formal mathematical nature of human language, courses are offered in the areas of phonology, morphology, and syntax. The issues of language as social phenomena are dealt with in diverse, socio-cultural linguistics courses. After minoring in linguistics, students will achieve a high level of analytical ability, which is necessary not only in linguistics, but also in many other related fields, including computer science, mathematics, philosophy, and psychology.

### Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

### Minor Requirements

#### Core Requirements (6 cr)

- LING 1811 - Introduction to Linguistics [LE CAT2, LOGIC & QR] (3.0 cr)
- LING 3102 - Introduction to Syntax (3.0 cr)

#### Electives (14 cr)

Most LING 2xxx-4xxx courses apply here.

Take 14 or more credit(s) from the following:

- ENGL 5821 - History of the English Language (4.0 cr)
- LING 2195 - Special Topics: (Various Titles to be Assigned) (3.0 cr)
- LING 2506 - Language and Writing (3.0 cr)
- LING 3101 - Introduction to Phonology (3.0 cr)
- LING 3103 - Dimensions of Meaning (3.0 cr)
- LING 3591 - Independent Study in Linguistics (1.0 - 3.0 cr)
- LING 4103 - Morphology: Word Structures and Rules (3.0 cr)
- LING 4195 - Special Topics: (Various Titles to be Assigned) (1.0 - 4.0 cr)
- LING 4400 - Sociolinguistics (3.0 cr)
- LING 4852 - Teaching Assistantship in Linguistics (1.0 - 3.0 cr)
- PHIL 2011 - Philosophy of Language [LE CAT3, SOC SCI] (3.0 cr)
- PSY 3661 - Psychology of Language (3.0 cr)

#### Language (optional)

No more than one course from a single second language may apply towards the 'Electives (14 cr)' requirement: American Sign Language, Chinese, French, German, Ojibwe, Russian, Spanish.

Take 0 - 1 course(s) from the following:

- AMIN 1103 - Beginning Ojibwe I [LE CAT3, LECD CAT03, COMM & LAN] (3.0 cr)
- AMIN 1104 - Beginning Ojibwe II [LE CAT3, LECD CAT03, COMM & LAN] (3.0 cr)
- AMIN 2103 - Intermediate Ojibwe I [LE CAT3, LECD CAT03, COMM & LAN] (3.0 cr)
- AMIN 2104 - Intermediate Ojibwe II [LE CAT3, LECD CAT03, COMM & LAN] (3.0 cr)
- ASL 2001 - Beginning American Sign Language I [LE CAT3, LECD CAT03, COMM & LAN] (3.0 cr)
- ASL 2002 - Beginning American Sign Language II [LE CAT3, LECD CAT03, COMM & LAN] (3.0 cr)
- ASL 3003 - Intermediate American Sign Language I [COMM & LAN] (3.0 cr)
- ASL 3004 - Intermediate American Sign Language II [COMM & LAN] (3.0 cr)
- CHIN 1101 - Beginning Chinese I: A Practical Introduction to Everyday Mandarin Chinese [LE CAT3, LEIP CAT03, COMM & LAN] (4.0 cr)
- CHIN 1102 - Beginning Chinese II: A Practical Introduction to Everyday Mandarin Chinese [LE CAT3, LEIP CAT03, COMM & LAN] (4.0 cr)
- CHIN 1103 - Beginning Chinese III: A Practical Introduction to Everyday Mandarin Chinese [LE CAT3, COMM & LAN] (4.0 cr)
- CHIN 1104 - Beginning Chinese IV: A Practical Introduction to Everyday Mandarin Chinese [LE CAT3, COMM & LAN] (4.0 cr)
- FR 1101 - Beginning French I [LE CAT3, COMM & LAN] (4.0 cr)



- FR 1102 - Beginning French II [LE CAT3, COMM & LAN] (4.0 cr)
- FR 1201 - Intermediate French I [LE CAT3, COMM & LAN] (4.0 cr)
- FR 1202 - Intermediate French II [LE CAT3, LEIP CAT03, COMM & LAN] (4.0 cr)
- FR 2301 - Advanced French [LE CAT3, LEIP CAT03, COMM & LAN] (4.0 cr)
- GER 1101 - Beginning German I [LE CAT3, COMM & LAN] (4.0 cr)
- GER 1102 - Beginning German II [LE CAT3, COMM & LAN] (4.0 cr)
- GER 1201 - Intermediate German I [LE CAT3, COMM & LAN] (4.0 cr)
- GER 1202 - Intermediate German II [LE CAT3, LEIP CAT03, COMM & LAN] (4.0 cr)
- GER 2301 - Advanced German [LE CAT3, LEIP CAT03, COMM & LAN] (4.0 cr)
- RUSS 1101 - Beginning Russian I [LE CAT3, COMM & LAN] (4.0 cr)
- RUSS 1102 - Beginning Russian II [LE CAT3, COMM & LAN] (4.0 cr)
- FORS 1110 - RUSS 1110 Beginning Russian Language and Culture (Abroad) [COMM & LAN] (8.0 cr)
- FORS 1210 - RUSS 1210 Intermediate Russian Language and Culture (Abroad) [COMM & LAN] (8.0 cr)
- SPAN 1101 - Beginning Spanish I [LE CAT3, COMM & LAN] (4.0 cr)
- SPAN 1102 - Beginning Spanish II [LE CAT3, COMM & LAN] (4.0 cr)
- SPAN 1201 - Intermediate Spanish I [LE CAT3, COMM & LAN] (4.0 cr)
- SPAN 1202 - Intermediate Spanish II [LE CAT3, LEIP CAT03, COMM & LAN] (4.0 cr)
- SPAN 2301 - Advanced Spanish [LE CAT3, LEIP CAT03, COMM & LAN] (4.0 cr)



## Duluth Campus

# Museum Studies Certificate

History

## College of Liberal Arts

- Program Type: Undergraduate credit certificate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 16
- Potential training sites to include several museums in Duluth, as well as Superior, WI, Virginia, Eveleth, Hibbing, Grand Rapids, Ely, Tower, the North Shore area, Pine City as well as institutions in Ireland and England are being developed as potential internship sites.

The museum studies certificate unites history, theory, and practical learning in a curriculum that prepares participants for professional or volunteer careers in administration, collections, and specialty disciplines within museums, archives, tribal collections, zoos, aquariums, parks, and botanical gardens.

## Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

## Admission Requirements

Please see the following UMD site for details on how to apply for this certificate:  
[z.umn.edu/umdcert](http://z.umn.edu/umdcert)

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

## General Requirements

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

## Program Requirements

### Required Courses (16 cr)

Students must take HIST 3097 for a minimum of 3 credits.

- [MST 1100](#) - Introduction to Museums (3.0 cr)
- [MST 1200](#) - Introduction to Public History (3.0 cr)
- [MST 3100](#) - Introduction to Museum Education (3.0 cr)
- [BUS 2400](#) - Fundamentals of Organizational Management (2.0 cr)
- [BUS 2700](#) - Fundamentals of Marketing (2.0 cr)
- [HIST 3097](#) - Internship in History (1.0 - 3.0 cr)



### Duluth Campus

## Ojibwe Language Minor

American Indian Studies

### College of Liberal Arts

- Program Type: Undergraduate free-standing minor
- Requirements for this program are current for Fall 2016
- Required credits in this minor: 18

This minor provides focused coursework on the Ojibwe language, the indigenous language of the region. Ojibwe language study provides students with a unique understanding of Ojibwe culture and the local environment. Students are equipped to participate in a language revitalization program while enhancing their understanding of issues of cultural diversity. The minor addresses the needs of local Ojibwe communities by training Ojibwe language speakers for work in tribal schools, Ojibwe immersion programs, and schools with significant American Indian populations.

### Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

### Minor Requirements

Students majoring or minoring in American Indian Studies cannot declare this minor.

#### Required Courses (18 cr)

##### Language (12 cr)

- [AMIN 1103](#) - Beginning Ojibwe I [LE CAT3, LECD CAT03, COMM & LAN] (3.0 cr)
- [AMIN 1104](#) - Beginning Ojibwe II [LE CAT3, LECD CAT03, COMM & LAN] (3.0 cr)
- [AMIN 2103](#) - Intermediate Ojibwe I [LE CAT3, LECD CAT03, COMM & LAN] (3.0 cr)
- [AMIN 2104](#) - Intermediate Ojibwe II [LE CAT3, LECD CAT03, COMM & LAN] (3.0 cr)

##### Additional Requirement (3 cr)

- [AMIN 2015](#) - Ojibwe History and Culture [SUSTAIN] (3.0 cr)
- or [AMIN 3620](#) - Ojibwe Literatures: Sovereignty and Survivance [CDIVERSITY] (3.0 cr)

##### Senior Study of Language (3 cr)

Take for 3 credits.

- [AMIN 4191](#) - Senior Study of Ojibwe Language (1.0 - 6.0 cr)
- or an alternative Ojibwe language course may be accepted by approval.

## Duluth Campus

# Philosophy B.A.

Philosophy

## College of Liberal Arts

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 120
- Required credits within the major: 31 to 38
- Degree: Bachelor of Arts

This program familiarizes students with the broad range of foundational theories that arose in the history of philosophy and helps students develop problem-solving skills using critical thinking. Beginning courses provide a comprehensive introduction to the methods and procedures of analytical reasoning by examining issues concerning logic, the nature of knowledge and reality, the existence of freedom, and the character of right and wrong. Advanced courses focus on special historical periods (e.g., Greek philosophy, early modern philosophy) and specific problem areas (e.g., philosophy of psychology, medical ethics, philosophy of language).

Principles that emerge from the study of philosophy concern basic theories and concepts, and the nature of reasoning as it applies to all areas of investigation within the humanities, natural sciences, and social sciences. As a result, studying philosophy enhances all majors and minors.

Honors Requirements: Candidates must be philosophy majors with a 3.30 GPA in the major. Students complete PHIL 5991 and write a substantial paper or significantly rewrite a paper submitted for another philosophy course. Students must notify the department head of their intent to participate in the honors program by the end of the first week of the semester of graduation and the paper must be approved by a faculty member at least 30 days before the end of the term. The paper is presented orally in a department colloquium with the approved manuscript submitted to the department head at least one week before presentation. Contact the department head for more information.

## Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

## Admission Requirements

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

### Required prerequisites

#### Introductory Requirement (1 cr)

Transfer students with 24 or more credits and current UMD students who change colleges to CLA are exempt from this requirement. New first-year students with 24 or more PSEO credits may request to be waived from this requirement.

[UST 1000](#) - UMD Seminar (1.0 - 2.0 cr)

## General Requirements

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.

8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

## Program Requirements

1. A second field of study (either a minor or another major).
2. Majors with sub-plans must be declared through the CLA Advising & Academic Services office.
3. PHIL 3900 - Colloquium for Majors. Students attend 12 department approved philosophy lectures/discussions over a 4-year period and register for PHIL 3900 only during the semester they attend their 12th lecture; contact the department for details.

## Program Sub-plans

Students are required to complete one of the following sub-plans.

### General

The General sub-plan emphasizes the history of philosophical thought and metaphysics and theory of knowledge.

### Core (12 cr)

- PHIL 1001 - Introduction to Philosophy [LE CAT7, HUMANITIES] (3.0 cr)
- PHIL 1018 - Logic [LE CAT2, LOGIC & QR] (4.0 cr)
- PHIL 3900 - Colloquium for Majors (1.0 cr)
- PHIL 4900 - Seminar in Philosophy (4.0 cr)

### History of Philosophy Electives (8 cr)

Students are required to take 3301 OR 3303, and at least one additional course from the list below. It is recommended that students take both 3301 and 3303, and either 3319 or 3320.

#### Take one of the following courses:

- PHIL 3301 - Greek Philosophy (4.0 cr)
- or PHIL 3303 - The Birth of Modern Philosophy (4.0 cr)

#### Take one additional Hist of Phil course:

- PHIL 3301 - Greek Philosophy (4.0 cr)
- or PHIL 3303 - The Birth of Modern Philosophy (4.0 cr)
- or PHIL 3319 - 19th Century Philosophy (4.0 cr)
- or PHIL 3320 - 20th Century Philosophy (4.0 cr)

### Electives (7-8 cr)

Alternative courses taken within the History of Philosophy Electives may apply here. Most PHIL 1xxx-3xxx level courses apply here. (Three different elective courses listed may satisfy this requirement, but at least two of the courses must be at the 2xxx level or above. PHIL 5991 can contribute no more than a maximum of 3 credits towards this requirement. If a student is taking PHIL 5991 to meet Departmental Honors, those credits can also apply towards this elective requirement.)

Take 0 - 1 course(s) from the following:

- PHIL 1003 - Ethics and Society [LE CAT8, LEIP CAT08, HUMANITIES, CDIVERSITY] (3.0 cr)
- PHIL 1005 - Philosophy through Dialogue and Debate [COMM & LAN] (3.0 cr)
- PHIL 1007 - Philosophy and World Religions [LE CAT7, LEIP CAT07, HUMANITIES, GLOBAL PER] (3.0 cr)
- PHIL 1008 - Critical Thinking [LE CAT2, LOGIC & QR] (4.0 cr)
- PHIL 1021 - Classical Mythology [LE CAT9, HUMANITIES] (3.0 cr)
- PHIL 1025 - Introduction to Cognitive Science [NAT SCI] (3.0 cr)

#### •Required Upper Division Electives

Take 2 or more course(s) from the following:

- FORS 2025 - HIST 2025 History in Greece (3.0 cr)
- PHIL 2001 - Existential Literature [HUMANITIES] (3.0 cr)
- PHIL 2011 - Philosophy of Language [LE CAT3, SOC SCI] (3.0 cr)
- PHIL 2021 - Science and Pseudo-Science: Thinking about Weird Things [LE CAT8, HUMANITIES] (3.0 cr)
- PHIL 3025 - Philosophy of Race and Racism (4.0 cr)
- PHIL 3195 - Special Topics: (Various Titles to be Assigned) (3.0 - 9.0 cr)
- PHIL 3222 - Medical Ethics (4.0 cr)
- PHIL 3231 - Law and Punishment (4.0 cr)
- PHIL 3242 - Values and Technology [LE CAT8, HUMANITIES] (3.0 cr)
- PHIL 3245 - Aesthetics (3.0 cr)
- PHIL 3252 - Philosophy of Science (3.0 cr)
- PHIL 3281 - Ethical Theory (4.0 cr)
- PHIL 3291 - Current Social Political Philosophy (4.0 cr)

- PHIL 3325 - Environmental Ethics [HUMANITIES, SUSTAIN] (4.0 cr)
- PHIL 3421 - Eastern Philosophy (4.0 cr)
- PHIL 3570 - Philosophy of Psychology (4.0 cr)
- PHIL 3655 - Theory of Knowledge (4.0 cr)
- PHIL 5991 - Independent Study (1.0 - 3.0 cr)
- PHIL 5997 - Intern Teaching Assistantship (2.0 cr)

**Advanced Writing Requirement (3 cr)**

The advanced writing requirement may be satisfied with one additional PHIL 3xxx course for at least 3 cr.

Take one of the following:

WRIT 31xx or PHIL 3xxx (3 cr)

**Applied Ethics**

This emphasis familiarizes students with major ethical theories and their applications in a number of fields and work situations.

Beginning courses provide a framework for ethical thinking and decision making from a variety of theoretical orientations, along with introductory applications to social problems. Advanced courses apply this thinking to complex issues generated within specific fields such as medicine, technology, and the environment.

Principles that emerge from the study of applied ethics can complement a variety of majors and minors, as well as enhance students' moral education and theoretical literacy for handling ethical problems that may emerge in a variety of careers and leadership roles in law, politics, and service organizations.

Students choose upper division electives from other disciplines to shape the major to their specific interests and postbaccalaureate plans.

**Lower Division Core (10 cr)**

- PHIL 1001 - Introduction to Philosophy [LE CAT7, HUMANITIES] (3.0 cr)
- PHIL 1003 - Ethics and Society [LE CAT8, LEIP CAT08, HUMANITIES, CDIVERSITY] (3.0 cr)
- PHIL 1008 - Critical Thinking [LE CAT2, LOGIC & QR] (4.0 cr)  
or PHIL 1018 - Logic [LE CAT2, LOGIC & QR] (4.0 cr)

**Upper Division Core (13 cr)**

- PHIL 3281 - Ethical Theory (4.0 cr)
- PHIL 3900 - Colloquium for Majors (1.0 cr)
- PHIL 4900 - Seminar in Philosophy (4.0 cr)
- PHIL 3291 - Current Social Political Philosophy (4.0 cr)  
or POL 3600 - Political Concepts (4.0 cr)

**History of Philosophy Elective (4 cr)**

- PHIL 3301 - Greek Philosophy (4.0 cr)  
or PHIL 3303 - The Birth of Modern Philosophy (4.0 cr)  
or PHIL 3421 - Eastern Philosophy (4.0 cr)

**Upper Division Application Areas (7 cr)**

Take 2 or more course(s) from the following:

- FORS 2025 - HIST 2025 History in Greece (3.0 cr)
- PHIL 3025 - Philosophy of Race and Racism (4.0 cr)
- PHIL 3222 - Medical Ethics (4.0 cr)
- PHIL 3231 - Law and Punishment (4.0 cr)
- PHIL 3242 - Values and Technology [LE CAT8, HUMANITIES] (3.0 cr)
- PHIL 3325 - Environmental Ethics [HUMANITIES, SUSTAIN] (4.0 cr)

**Advanced Writing Requirement (3 cr)**

The advanced writing requirement may be satisfied with one additional PHIL 3xxx course for at least 3 cr.

Take one of the following:

WRIT 31xx or PHIL 3xxx (3 cr)

## Duluth Campus

# Philosophy Minor

Philosophy

## College of Liberal Arts

- Program Type: Undergraduate minor related to major
- Requirements for this program are current for Fall 2016
- Required credits in this minor: 16

The philosophy minor acquaints students with major figures and problems in our philosophical heritage and helps them develop critical-thinking skills.

## Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

## Minor Requirements

### Lower Division Electives (6 cr)

Most PHIL 1xxx courses will apply here.

Take 6 or more credit(s) from the following:

- PHIL 1001 - Introduction to Philosophy [LE CAT7, HUMANITIES] (3.0 cr)
- PHIL 1003 - Ethics and Society [LE CAT8, LEIP CAT08, HUMANITIES, CDIVERSITY] (3.0 cr)
- PHIL 1005 - Philosophy through Dialogue and Debate [COMM & LAN] (3.0 cr)
- PHIL 1007 - Philosophy and World Religions [LE CAT7, LEIP CAT07, HUMANITIES, GLOBAL PER] (3.0 cr)
- PHIL 1008 - Critical Thinking [LE CAT2, LOGIC & QR] (4.0 cr)
- PHIL 1018 - Logic [LE CAT2, LOGIC & QR] (4.0 cr)
- PHIL 1021 - Classical Mythology [LE CAT9, HUMANITIES] (3.0 cr)
- PHIL 1025 - Introduction to Cognitive Science [NAT SCI] (3.0 cr)

### Upper Division Electives (10 cr)

Most PHIL 2xxx-5xxx level courses will apply here. (PHIL 5991 can contribute no more than 3 credits towards this requirement.)

Take 10 or more credit(s) from the following:

- FORS 2025 - HIST 2025 History in Greece (3.0) (summer only)
- PHIL 2001 - Existential Literature [HUMANITIES] (3.0 cr)
- PHIL 2011 - Philosophy of Language [LE CAT3, SOC SCI] (3.0 cr)
- PHIL 2021 - Science and Pseudo-Science: Thinking about Weird Things [LE CAT8, HUMANITIES] (3.0 cr)
- PHIL 3025 - Philosophy of Race and Racism (4.0 cr)
- PHIL 3195 - Special Topics: (Various Titles to be Assigned) (3.0 - 9.0 cr)
- PHIL 3222 - Medical Ethics (4.0 cr)
- PHIL 3231 - Law and Punishment (4.0 cr)
- PHIL 3242 - Values and Technology [LE CAT8, HUMANITIES] (3.0 cr)
- PHIL 3245 - Aesthetics (3.0 cr)
- PHIL 3252 - Philosophy of Science (3.0 cr)
- PHIL 3281 - Ethical Theory (4.0 cr)
- PHIL 3291 - Current Social Political Philosophy (4.0 cr)
- PHIL 3301 - Greek Philosophy (4.0 cr)
- PHIL 3303 - The Birth of Modern Philosophy (4.0 cr)
- PHIL 3319 - 19th Century Philosophy (4.0 cr)
- PHIL 3320 - 20th Century Philosophy (4.0 cr)
- PHIL 3325 - Environmental Ethics [HUMANITIES, SUSTAIN] (4.0 cr)
- PHIL 3421 - Eastern Philosophy (4.0 cr)
- PHIL 3570 - Philosophy of Psychology (4.0 cr)
- PHIL 3655 - Theory of Knowledge (4.0 cr)
- PHIL 3900 - Colloquium for Majors (1.0 cr)
- PHIL 4900 - Seminar in Philosophy (4.0 cr)
- PHIL 5991 - Independent Study (1.0 - 3.0 cr)
- PHIL 5997 - Intern Teaching Assistantship (2.0 cr)

## Duluth Campus

# Political Science B.A.

*Political Science*

## College of Liberal Arts

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 120
- Required credits within the major: 43 to 44
- Degree: Bachelor of Arts

This program prepares students for careers in government and business, the study of law, and graduate study in political science, domestic and international public policy, and related fields. It offers general liberal education coursework, specialized coursework for students majoring in other disciplines, and a related field for graduate students.

Students have considerable flexibility in designing their major to ensure it meets personal and professional interests. Up to two courses can be taken from the list of approved courses outside the department. Students should consult their department advisor to define the focus and coverage of their program and select courses in other disciplines, including second majors and minors. Students are encouraged to acquire collateral skills in areas such as statistics, computer applications, and foreign languages. At least eight political science credits must be taken at UMD. Students interested in graduate study should begin planning in their junior year. Many programs expect proficiency in statistical analysis and/or a foreign language.

Honors Requirements: Departmental honors in political science will be automatically granted to any student who is a political science major graduating with a grade point average of 3.80 or higher in political science courses taken at UMD or accepted for transfer to UMD. The average will be calculated using only political science courses.

## Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

## Admission Requirements

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

### Required prerequisites

#### Introductory Requirement (1 cr)

Transfer students with 24 or more credits and current UMD students who change colleges to CLA are exempt from this requirement. New first-year students with 24 or more PSEO credits may request to be waived from this requirement.

[UST 1000](#) - UMD Seminar (1.0 - 2.0 cr)

## General Requirements

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.



## Program Requirements

1. A second field of study (either a minor or another major).
2. At least 8 political science credits must be taken at UMD.
3. Study abroad is encouraged for all students and the department makes every effort to facilitate such experiences.

### Political Science Core (7 cr)

- [POL 1011](#) - American Government and Politics [LE CAT6, SOC SCI] (3.0 cr)
- [POL 4190](#) - The Senior Seminar (4.0 cr)

### Introductory Political Science Courses (9-10 cr)

Most POL 1xxx-2xxx courses apply here. NOTE: One attempt of POL 1800 is applicable towards the major. If the course is taken twice the additional credits will not apply to the major, but will apply to the overall degree. POL 2700 is the preferred course for methodology. (Courses beyond the 9-10 credits will apply to the 'Additional Electives' area.)

Take 9 - 10 credit(s) from the following:

- [POL 1015](#) - Introduction to Political Science (3.0 cr)
- [POL 1050](#) - International Relations [LE CAT8, LEIP CAT08, GLOBAL PER] (3.0 cr)
- [POL 1500](#) - Introduction to Comparative Politics [LE CAT6, LEIP CAT06, GLOBAL PER] (3.0 cr)
- [POL 1610](#) - Introduction to Political Theory [LE CAT7, HUMANITIES] (3.0 cr)
- [POL 1800](#) - Mock Trial (3.0 cr)
- [POL 2700](#) - Methodology and Analysis [LOGIC & QR] (4.0 cr)

### Political Science Electives

Choose 23 credits from the following options. At least 15 credits must come from POL 3xxx or higher level courses. One of the remaining introductory courses may be used including up to two courses in the 'Electives from Outside the Department' list. Students may satisfy this requirement by taking all POL courses at the 3xxx or higher course level.

### Upper Division Electives in Political Science (15 cr)

Most POL 3xxx-4xxx courses apply here. (Courses beyond the 15 credits will apply to the 'Additional Electives' area.)

Take 15 or more credit(s) from the following:

- [POL 3001](#) - American Public Policy (3.0 cr)
- [POL 3015](#) - State and Local Government (4.0 cr)
- [POL 3025](#) - Popular Culture and Politics (4.0 cr)
- [POL 3040](#) - Women and Politics (3.0 cr)
- [POL 3080](#) - Environment and Politics (3.0 cr)
- [POL 3097](#) - Government Internship (1.0 - 12.0 cr)
- [POL 3120](#) - Congress and the Presidency (4.0 cr)
- [POL 3131](#) - Judicial Politics and Policy Making (3.0 cr)
- [POL 3141](#) - Pol Parties & Polarization (3.0 cr)
- [POL 3142](#) - Voting, Campaigning, and Elections (3.0 cr)
- [POL 3143](#) - Political Psychology (3.0 cr)
- [POL 3150](#) - American Constitutional Law I (4.0 cr)
- [POL 3151](#) - American Constitutional Law II (4.0 cr)
- [POL 3170](#) - Political Interest Groups and Individuals (3.0 cr)
- [POL 3195](#) - Special Topics: (Various Titles to Be Assigned) (1.0 - 4.0 cr)
- [POL 3197](#) - Nongovernmental Internship (1.0 - 12.0 cr)
- [POL 3311](#) - Public Opinion and Polling Methods (4.0 cr)
- [POL 3400](#) - Contemporary Issues in World Politics (4.0 cr)
- [POL 3403](#) - American Foreign Policy (3.0 cr)
- [POL 3420](#) - International Organization and Global Governance (3.0 cr)
- [POL 3426](#) - Politics of International Law (4.0 cr)
- [POL 3430](#) - Global Health Politics (3.0 cr)
- [POL 3451](#) - Theories of International Relations (4.0 cr)
- [POL 3456](#) - International Security: War and More (4.0 cr)
- [POL 3511](#) - Politics of South Asia (4.0 cr)
- [POL 3515](#) - Theories of Comparative Politics (4.0 cr)
- [POL 3517](#) - Western European Political Systems (4.0 cr)
- [POL 3518](#) - Transitional Politics of Asia (3.0 cr)
- [POL 3525](#) - African Politics (3.0 cr)
- [POL 3530](#) - Comparative Constitutional Law and Judicial Politics (3.0 cr)
- [POL 3570](#) - Politics of Developing Nations (3.0 cr)
- [POL 3575](#) - Latin American Politics and Development (4.0 cr)
- [POL 3580](#) - Central American Politics (4.0 cr)



- POL 3600 - Political Concepts (4.0 cr)
- POL 3610 - Political Economy: An Introduction (4.0 cr)
- POL 3651 - Classical Political Thought (4.0 cr)
- POL 3652 - Modern Political Thought (4.0 cr)
- POL 4191 - Independent Study (1.0 - 4.0 cr)
- POL 4910 - Teaching Assistantship in Political Science (1.0 - 2.0 cr)

**Additional Electives (8 cr)**

Take 2 to 3 courses totaling 8 or more credits. Additional POL 1xxx-4xxx level courses, two courses from the 'Electives From Outside the Department' course list, or courses across both areas will satisfy this requirement.

Take 0 - 3 course(s) from the following:

- POL 1xxx, 2xxx, 3xxx, 4xxx

**Electives From Outside the Department (optional)**

Take no more than 2 course(s) from the following:

- AMIN 3206 - Federal Indian Policy [LE CAT8, LECD CAT08, SOC SCI, CDIVERSITY] (3.0 cr)
- AMIN 3230 - American Indian Tribal Government and Law [SOC SCI, CDIVERSITY] (3.0 cr)
- AMIN 4230 - Introduction to Federal Indian Law [SOC SCI, CDIVERSITY] (3.0 cr)
- BLAW 2001 - The Legal Environment [LE CAT8, HUMANITIES] (3.0 cr)
- CRIM 3324 - Sociology of Criminal Law (3.0 cr)
- CRIM 3380 - Death Penalty (3.0 cr)
- ECON 2030 - Applied Statistics for Business and Economics [LOGIC & QR] (3.0 cr)
- ECON 4213 - Mathematical Economics (3.0 cr)
- ECON 4570 - Public Finance (3.0 cr)
- GEOG 4393 - Political Geography (3.0 cr)
- HIST 2365 - Russia in the 20th Century [LE CAT7, LEIP CAT07, GLOBAL PER] (4.0 cr)
- HIST 3243 - Europe in Crisis in the 20th Century (4.0 cr)
- HIST 3386 - The United States and the World since 1898 (4.0 cr)
- HIST 3465 - Twentieth Century China Politics (4.0 cr)
- HIST 3615 - Modern Africa (4.0 cr)
- HIST 3616 - Society and Culture in 20th-Century Africa (4.0 cr)
- HIST 3726 - Modern Middle East: 18th Century-Present (4.0 cr)
- INTS 4100 - Seminar in International Studies (4.0 cr)
- PHIL 3231 - Law and Punishment (4.0 cr)
- PHIL 3291 - Current Social Political Philosophy (4.0 cr)
- SOC 3155 - Quantitative Research Methods and Analysis (4.0 cr)
- SOC 3156 - Qualitative Research Methods and Analysis (4.0 cr)
- WS 3100 - Feminist Thought [HUMANITIES, CDIVERSITY] (4.0 cr)
- WS 3600 - Ecofeminism: Theories and Sustainable Practices [SUSTAIN] (3.0 cr)
- STAT option (one course applicable)
  - STAT 1411 - Introduction to Statistics [LE CAT2, LOGIC & QR] (3.0 cr)
  - or STAT 2411 - Statistical Methods [LE CAT2, LOGIC & QR] (3.0 cr)
  - or STAT 3611 - Introduction to Probability and Statistics (4.0 cr)
  - or STAT 5411 - Analysis of Variance (3.0 cr)
  - or STAT 5511 - Regression Analysis (3.0 cr)

**Advanced Writing Requirement (3 cr)**

WRIT 31xx - Adv Writing (3 cr)

## Duluth Campus

# Political Science Minor

*Political Science*

## College of Liberal Arts

- Program Type: Undergraduate minor related to major
- Requirements for this program are current for Fall 2016
- Required credits in this minor: 20 to 21

The political science minor can be designed specifically to supplement major programs in related disciplines or more broadly develop the political awareness, background, and critical faculties requisite to responsible citizenship.

## Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

## Minor Requirements

### Requirements (20-21 credits)

Across the lower division and elective areas a total of 20-21 credits is required. Students are required to take a minimum of 14 credits of POL 3xxx-4xxx. Within these 14 credits, no more than one course may be from the 'Electives From Outside the Department' area. A minimum of 8 credits must be taken at UMD. Students may satisfy this requirement by taking all POL courses at the 3xxx or higher course level.

### Lower Division (0-7 cr)

Most POL 1xxx-2xxx courses apply here. If students elect to take a methodology course, POL 2700 is preferred.

Take at most 7 credit(s) from the following:

- POL 1011 - American Government and Politics [LE CAT6, SOC SCI] (3.0 cr)
- POL 1015 - Introduction to Political Science (3.0 cr)
- POL 1050 - International Relations [LE CAT8, LEIP CAT08, GLOBAL PER] (3.0 cr)
- POL 1500 - Introduction to Comparative Politics [LE CAT6, LEIP CAT06, GLOBAL PER] (3.0 cr)
- POL 1610 - Introduction to Political Theory [LE CAT7, HUMANITIES] (3.0 cr)
- POL 1800 - Mock Trial (3.0 cr)
- POL 2700 - Methodology and Analysis [LOGIC & QR] (4.0 cr)

### Electives (14 cr)

Most POL 3xxx-4xxx courses apply here. Students are required to take a minimum of 14 credits of POL 3xxx-4xxx within the minor. One course from the 'Electives From Outside the Department' area may apply.

Take 14 or more credit(s) from the following:

- POL 3001 - American Public Policy (3.0 cr)
- POL 3015 - State and Local Government (4.0 cr)
- POL 3025 - Popular Culture and Politics (4.0 cr)
- POL 3040 - Women and Politics (3.0 cr)
- POL 3080 - Environment and Politics (3.0 cr)
- POL 3097 - Government Internship (1.0 - 12.0 cr)
- POL 3120 - Congress and the Presidency (4.0 cr)
- POL 3131 - Judicial Politics and Policy Making (3.0 cr)
- POL 3141 - Pol Parties & Polarization (3.0 cr)
- POL 3142 - Voting, Campaigning, and Elections (3.0 cr)
- POL 3143 - Political Psychology (3.0 cr)
- POL 3150 - American Constitutional Law I (4.0 cr)
- POL 3151 - American Constitutional Law II (4.0 cr)
- POL 3170 - Political Interest Groups and Individuals (3.0 cr)
- POL 3195 - Special Topics: (Various Titles to Be Assigned) (1.0 - 4.0 cr)
- POL 3197 - Nongovernmental Internship (1.0 - 12.0 cr)
- POL 3311 - Public Opinion and Polling Methods (4.0 cr)
- POL 3400 - Contemporary Issues in World Politics (4.0 cr)
- POL 3403 - American Foreign Policy (3.0 cr)
- POL 3420 - International Organization and Global Governance (3.0 cr)
- POL 3426 - Politics of International Law (4.0 cr)



- POL 3430 - Global Health Politics (3.0 cr)
- POL 3451 - Theories of International Relations (4.0 cr)
- POL 3456 - International Security: War and More (4.0 cr)
- POL 3511 - Politics of South Asia (4.0 cr)
- POL 3515 - Theories of Comparative Politics (4.0 cr)
- POL 3517 - Western European Political Systems (4.0 cr)
- POL 3518 - Transitional Politics of Asia (3.0 cr)
- POL 3525 - African Politics (3.0 cr)
- POL 3530 - Comparative Constitutional Law and Judicial Politics (3.0 cr)
- POL 3570 - Politics of Developing Nations (3.0 cr)
- POL 3575 - Latin American Politics and Development (4.0 cr)
- POL 3580 - Central American Politics (4.0 cr)
- POL 3600 - Political Concepts (4.0 cr)
- POL 3610 - Political Economy: An Introduction (4.0 cr)
- POL 3651 - Classical Political Thought (4.0 cr)
- POL 3652 - Modern Political Thought (4.0 cr)
- POL 4190 - The Senior Seminar (4.0 cr)
- POL 4191 - Independent Study (1.0 - 4.0 cr)
- POL 4910 - Teaching Assistantship in Political Science (1.0 - 2.0 cr)

**Electives From Outside the Department (one course)**

Take no more than 1 course(s) from the following:

- AMIN 3206 - Federal Indian Policy [LE CAT8, LECD CAT08, SOC SCI, CDIVERSITY] (3.0 cr)
- AMIN 3230 - American Indian Tribal Government and Law [SOC SCI, CDIVERSITY] (3.0 cr)
- AMIN 4230 - Introduction to Federal Indian Law [SOC SCI, CDIVERSITY] (3.0 cr)
- BLAW 2001 - The Legal Environment [LE CAT8, HUMANITIES] (3.0 cr)
- CRIM 3324 - Sociology of Criminal Law (3.0 cr)
- CRIM 3380 - Death Penalty (3.0 cr)
- ECON 2030 - Applied Statistics for Business and Economics [LOGIC & QR] (3.0 cr)
- ECON 4213 - Mathematical Economics (3.0 cr)
- ECON 4570 - Public Finance (3.0 cr)
- GEOG 4393 - Political Geography (3.0 cr)
- HIST 2365 - Russia in the 20th Century [LE CAT7, LEIP CAT07, GLOBAL PER] (4.0 cr)
- HIST 3243 - Europe in Crisis in the 20th Century (4.0 cr)
- HIST 3386 - The United States and the World since 1898 (4.0 cr)
- HIST 3465 - Twentieth Century China Politics (4.0 cr)
- HIST 3615 - Modern Africa (4.0 cr)
- HIST 3616 - Society and Culture in 20th-Century Africa (4.0 cr)
- HIST 3726 - Modern Middle East: 18th Century-Present (4.0 cr)
- INTS 4100 - Seminar in International Studies (4.0 cr)
- PHIL 3231 - Law and Punishment (4.0 cr)
- PHIL 3291 - Current Social Political Philosophy (4.0 cr)
- SOC 3155 - Quantitative Research Methods and Analysis (4.0 cr)
- SOC 3156 - Qualitative Research Methods and Analysis (4.0 cr)
- WS 3100 - Feminist Thought [HUMANITIES, CDIVERSITY] (4.0 cr)
- WS 3600 - Ecofeminism: Theories and Sustainable Practices [SUSTAIN] (3.0 cr)
- STAT option**
  - STAT 1411 - Introduction to Statistics [LE CAT2, LOGIC & QR] (3.0 cr)
  - or STAT 2411 - Statistical Methods [LE CAT2, LOGIC & QR] (3.0 cr)
  - or STAT 3611 - Introduction to Probability and Statistics (4.0 cr)
  - or STAT 5411 - Analysis of Variance (3.0 cr)
  - or STAT 5511 - Regression Analysis (3.0 cr)



### **Duluth Campus**

## **Professional Writing Minor**

*English Linguistics and Writing Studies*

### **College of Liberal Arts**

- Program Type: Undergraduate free-standing minor
- Requirements for this program are current for Fall 2016
- Required credits in this minor: 22 to 23

The professional writing minor develops writing, reading, and rhetorical expertise relevant to professional communication. Emphasizing the production and analysis of texts and practice in varied writing techniques, the minor also provides a foundation in the study of professional writing as a field of inquiry.

### **Program Delivery**

This program is available:

- via classroom (the majority of instruction is face-to-face)

### **Minor Requirements**

Students majoring in writing studies must complete a minor or second major in a field other than professional writing or Information design.

#### **Lower Division Core (6 cr)**

- [WRIT 1506](#) - Literacy, Technology and Society [LE CAT7, HUMANITIES] (3.0 cr)
- [WRIT 2506](#) - Introduction to Writing Studies (3.0 cr)

#### **Upper Division Core (10 cr)**

The WRIT 31xx - Advanced Writing course requirement within a major may also apply to this requirement.

- WRIT 31xx - Adv Writ (3.0 cr)
- [WRIT 4200](#) - Writing and Cultures (3.0 cr)
- [WRIT 4250](#) - New Media Writing (3.0 cr)
- [WRIT 4506](#) - Capstone Course: Senior Portfolio Preparation (1.0 cr)

#### **Professional Writing Electives (3 cr)**

Take 1 or more courses from the following totaling at least 3 credits. (WRIT 1120 does not satisfy this requirement.)  
WRIT 1xxx-4xxx

#### **Free Electives (3-4 cr)**

Take one or more courses from the following areas for a total of at least 3 credits. (WRIT 1120 does not satisfy this requirement.)

- COMM 1xxx-5xxx
- ENGL 1xxx-5xxx
- FMIS 1xxx-5xxx
- JOUR 1xxx-5xxx
- LING 1xxx-5xxx
- TH 1xxx-5xxx
- WRIT 1xxx-5xxx



### Duluth Campus

## Russian Area Studies Minor

Foreign Languages & Literatures

### College of Liberal Arts

- Program Type: Undergraduate free-standing minor
- Requirements for this program are current for Fall 2016
- Required credits in this minor: 15 to 31
- This program requires summer terms.
- All courses in this program are offered through UMD. The program includes an optional UMD study abroad component offered in St. Petersburg, Russia. Courses may be taken at the College of St. Scholastica through inter-institutional cross-registration.

The Russian Area Studies Minor program prepares students for life-long engagement with the cultures of Russian-speaking countries by providing in-depth cultural training. This program complements Liberal Arts, Fine Arts, Business, Science, and Human Services degrees by offering students the linguistic skills and cultural awareness required for a wide variety of careers that deal with Russian society. Career paths that would benefit from this minor include law, public service, journalism, business, health and human services, diplomacy and academic careers in history, linguistics, cultural studies and comparative literature. This program also provides students with intercultural awareness and an in-depth understanding of the role played by Russian-speaking countries in international relations.

### Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

### Minor Requirements

1. To fulfill this minor students must complete coursework in beginning and intermediate level Russian language, as well as 15 elective credits from the list below. (Students with previous language study may be exempt from some core requirements and should consult the department about placement.)
2. Two elective courses must be taken at UMD.

#### Beginning Russian (0-8 cr)

The core program develops students' language skills (listening, speaking, reading, writing).

Take 0 - 8 credit(s) from the following:

- **RUSS 1101** - Beginning Russian I [LE CAT3, COMM & LAN] (4.0 cr)
- **RUSS 1102** - Beginning Russian II [LE CAT3, COMM & LAN] (4.0 cr)
- or **Abroad Experience**
- **FORS 1110** - RUSS 1110 Beginning Russian Language and Culture (Abroad) [COMM & LAN] (8.0 cr)

#### Intermediate Russian (0-8 cr)

Students must complete one of the following options for 8 credits. The study abroad option is available during the summer for 8 credits.

##### Intermediate Russian Language at the College of St. Scholastica

(through inter-institutional cross-registration)  
Intermediate Russian language sequence (8 cr)

or **Abroad Experience**

- **FORS 1210** - RUSS 1210 Intermediate Russian Language and Culture (Abroad) [COMM & LAN] (8.0 cr)

#### Electives (15 cr)

Some elective courses may be transferred from another college or earned abroad with approval from the RAS director. At least two courses must be taken at UMD. Any RUSS 3xxx level course will apply here.

Take 15 or more credit(s) from the following:

- **HIST 2365** - Russia in the 20th Century [LE CAT7, LEIP CAT07, GLOBAL PER] (4.0 cr)
- **HIST 3264** - Imperial Russia (4.0 cr)
- **RUSS 2316** - 19th Century Russian Literature in Translation: Dostoevsky, Gogol and Turgenev [LE CAT9, LEIP CAT09, HUMANITIES] (4.0 cr)
- **RUSS 3402** - 20th Cent Russian Literature in Translation: From Tumult & Utopian Vision to State and Dissident Art [HUMANITIES,



GLOBAL PER] (4.0 cr)

•[RUSS 3405](#) - Film and New Media in Russian Society [FINE ARTS, GLOBAL PER] (4.0 cr)

## Duluth Campus

### Sociology B.A.

*Sociology/Anthropology*

#### College of Liberal Arts

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 120
- Required credits within the major: 45
- Degree: Bachelor of Arts

Sociology focuses on the relationships between social structure and the dynamics of establishing, maintaining, and changing patterns of human social behavior. The program is built around a theoretical-methodological core with courses integrated to develop students' conceptual and research competence. These courses focus on social psychology, social organization, social change, and criminology. The major provides a background for careers in human services and business and preparation for related graduate and professional school study.

Honors requirements: The department honors program recognizes majors who demonstrate outstanding academic performance, provides special educational opportunities for such students, and encourages the development of specialty areas within the major. Honors students participate in independent research, working closely with a faculty member. Qualified majors apply to the honors program before the end of the second week of the first semester of their senior year. See department or department website for further information.

### Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

### Admission Requirements

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

#### Required prerequisites

##### Introductory Requirement (1 cr)

Transfer students with 24 or more credits and current University of Minnesota Duluth students who change colleges to College of Liberal Arts are exempt from this requirement. New first-year students with 24 or more PSEO credits may request to be waived from this requirement.

[UST 1000](#) - UMD Seminar (1.0 - 2.0 cr)

### General Requirements

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

## Program Requirements

1. A second field of study (either a minor or another major).
2. Study abroad is encouraged for all students and the department makes every effort to facilitate such experiences.
3. Students electing to major in sociology and criminology must follow the fall 2014 requirements or later for both programs.

### Lower Division Core (8 cr)

A grade of C or better is required in each course.

[SOC 1101](#) - Introduction to Sociology [LE CAT6, LECD CAT06, SOC SCI, CDIVERSITY] (4.0 cr)

[SOC 2155](#) - Introduction to Research Methods and Analysis (4.0 cr)

### Upper Division Core (15 cr)

After successfully completing SOC 4587, a student must wait at least one semester before registering for SOC 4597. Students intern in a setting related to their career interests. (Students also majoring in psychology may request to substitute PSY 3020 for SOC 3155. See the department head for approval.)

[SOC 3155](#) - Quantitative Research Methods and Analysis (4.0 cr)

[SOC 4111](#) - Sociological Theory (4.0 cr)

[SOC 4587](#) - Internship Preparation (1.0 cr)

[SOC 4597](#) - Internship (6.0 - 8.0 cr)

### Inequality Course (3 cr)

Students must take at least one course listed below to fulfill this requirement. Additional SOC inequality courses may apply as elective credit towards the major.

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

- [CRIM 4323](#) - Women and Justice (3.0 cr)
- [CRIM 4340](#) - Race, Crime and Justice (3.0 cr)
- [SOC 3330](#) - The American Civil Rights Movement [SOC SCI, CDIVERSITY] (3.0 cr)
- [SOC 3945](#) - Social Stratification (3.0 cr)
- [SOC 4947](#) - Sociology of Gender Identities and Systems (3.0 cr)
- [SOC 4949](#) - Race and Ethnic Relations (3.0 cr)

### Sociology Electives (12 cr)

Most SOC 3xxx-4xxx level courses apply here. Additional SOC courses taken from the inequality area will apply here.

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

- [SOC 3306](#) - Deviance (3.0 cr)
- [SOC 3595](#) - Special Topics: (Various Titles to be Assigned) (1.0 - 3.0 cr)
- [SOC 3821](#) - Sociology of Community (3.0 cr)
- [SOC 3831](#) - Organizations and Society (4.0 cr)
- [SOC 3901](#) - Social Change and Social Policy (3.0 cr)
- [SOC 4370](#) - Sociology of Mental Health and Illness (3.0 cr)
- [SOC 4860](#) - Environmental Sociology [SUSTAIN] (3.0 cr)
- [SOC 4910](#) - Teaching Assistantship in Sociology (1.0 - 3.0 cr)
- [SOC 4925](#) - Sociology of Rape (3.0 cr)
- [SOC 4935](#) - Peace Studies (3.0 cr)
- [SOC 4960](#) - Graveyard Culture (4.0 cr)
- [SOC 4981](#) - Social Movements, Protest and Change (4.0 cr)
- [SOC 4982](#) - Political Sociology and the Global Economy (4.0 cr)
- [SOC 4985](#) - Critical Animal Studies (4.0 cr)
- [SOC 4991](#) - Independent Study in Sociology (1.0 - 6.0 cr)
- [SOC 4999](#) - Honors Project Sociology (1.0 - 4.0 cr)
- [SOC 3701](#) - Social Psychology [SOC SCI] (3.0 cr)
- or [PSY 3201](#) - Social Psychology (3.0 cr)

### Additional Required Elective (3 cr)

Students may apply a SOC 1xxx-4xxx course to this area.

Take 3 or more credit(s) from the following:

- AAAS 3xxx-4xxx
- or ANTH 3xxx-4xxx
- or SOC 1xxx-4xxx

### Advanced Writing Requirement (3 cr)

WRIT 3140 or 3160 are recommended.

WRIT 31xx - Adv Writing (3 cr)





### Duluth Campus

## Sociology Minor

*Sociology/Anthropology*

### College of Liberal Arts

- Program Type: Undergraduate minor related to major
- Requirements for this program are current for Fall 2016
- Required credits in this minor: 20 to 21

The sociology minor introduces students to central sociological concepts, theories, and research methods. Students are allowed flexibility in exploring substantive courses relevant to their interests.

### Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

### Minor Requirements

#### Lower Division Core (8 cr)

A grade of C or better is required in each course.

[SOC 1101](#) - Introduction to Sociology [LE CAT6, LECD CAT06, SOC SCI, CDIVERSITY] (4.0 cr)

[SOC 2155](#) - Introduction to Research Methods and Analysis (4.0 cr)

#### Inequality Course (3 cr)

Additional SOC inequality courses may apply as elective credit towards the minor.

Take 3 or more credit(s) from the following:

- [CRIM 4323](#) - Women and Justice (3.0 cr)
- [CRIM 4340](#) - Race, Crime and Justice (3.0 cr)
- [SOC 3330](#) - The American Civil Rights Movement [SOC SCI, CDIVERSITY] (3.0 cr)
- [SOC 3945](#) - Social Stratification (3.0 cr)
- [SOC 4947](#) - Sociology of Gender Identities and Systems (3.0 cr)
- [SOC 4949](#) - Race and Ethnic Relations (3.0 cr)

#### Electives (9-10 cr)

Most SOC 3xxx-4xxx courses apply here. SOC 3155, 4587, 4597 cannot apply towards the sociology minor.

Take 9 or more credit(s) from the following:

- [CRIM 3322](#) - Law and Society (3.0 cr)
- [SOC 3156](#) - Qualitative Research Methods and Analysis (4.0 cr)
- [SOC 3306](#) - Deviance (3.0 cr)
- [SOC 3595](#) - Special Topics: (Various Titles to be Assigned) (1.0 - 3.0 cr)
- [SOC 3701](#) - Social Psychology [SOC SCI] (3.0 cr)
- [SOC 3821](#) - Sociology of Community (3.0 cr)
- [SOC 3831](#) - Organizations and Society (4.0 cr)
- [SOC 3901](#) - Social Change and Social Policy (3.0 cr)
- [SOC 4111](#) - Sociological Theory (4.0 cr)
- [SOC 4370](#) - Sociology of Mental Health and Illness (3.0 cr)
- [SOC 4860](#) - Environmental Sociology [SUSTAIN] (3.0 cr)
- [SOC 4910](#) - Teaching Assistantship in Sociology (1.0 - 3.0 cr)
- [SOC 4925](#) - Sociology of Rape (3.0 cr)
- [SOC 4935](#) - Peace Studies (3.0 cr)
- [SOC 4960](#) - Graveyard Culture (4.0 cr)
- [SOC 4981](#) - Social Movements, Protest and Change (4.0 cr)
- [SOC 4982](#) - Political Sociology and the Global Economy (4.0 cr)
- [SOC 4985](#) - Critical Animal Studies (4.0 cr)
- [SOC 4991](#) - Independent Study in Sociology (1.0 - 6.0 cr)
- [SOC 4999](#) - Honors Project Sociology (1.0 - 4.0 cr)

## Duluth Campus

# Tribal Administration & Governance B.A.

*American Indian Studies*

## College of Liberal Arts

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 120
- Required credits within the major: 54
- Degree: Bachelor of Arts

The Tribal Administration and Governance major is designed to prepare students to work for tribes and governmental and non-governmental entities that work closely with tribes. This major combines fundamental courses in business administration from the Labovitz School of Business & Economics with courses focused on tribal sovereignty, tribal governance, and federal Indian law and policy. The curriculum is based on studying the interrelationships between federal and tribal governments and the methods used by Native Nations to administer programs. Students will learn the history of federal-tribal-state relations; learn the roles of tribal leaders and administrators; and learn the laws, policies, and issues that impact tribal governments.

The major is flexible to accommodate a variety of student needs. All required courses for the major are offered online. Students may either transfer to UMD with an A.A. or the Minnesota Transfer Curriculum and complete the required courses for the major completely online in two years OR students who are beginning their undergraduate studies may come to UMD and take courses to fulfill the UMD liberal education program requirements while taking the online courses.

Students who graduate with a B.A. in Tribal Administration and Governance will:

- Demonstrate understanding of tribal sovereignty, self-determination, and self-governance.
- Demonstrate a basic understanding of tribal constitutions, jurisdictions, ordinances, statutes, and laws.
- Demonstrate the capacity to provide strategic administration in tribal contexts.
- Demonstrate the capacity to manage tribal organizations and programs.
- Demonstrate the capacity to manage human capital in tribal contexts.
- Demonstrate the capacity to successfully manage projects in tribal contexts.
- Demonstrate applicable understanding of key principles and cases in federal Indian law and the unique legal status of Indian tribes.
- Demonstrate applicable understanding of significant federal statutes, policies and issues that impact tribal governments and their reservations.
- Demonstrate applicable understanding of the fundamentals of accounting, economics, organizational management, applied statistics, financial management, and marketing.
- Demonstrate applicable understanding of the leadership qualities required of tribal administrators.

## Program Delivery

This program is available:

- completely online (all program coursework can be completed online)

## Admission Requirements

Students can declare this major at any time but once they begin the major they should take the TAG and BUS classes offered each semester (with the exception of internship which should be taken their last semester).

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

### Required prerequisites

#### Introductory Requirement (1 cr)

Transfer students with 24 or more credits and current UMD students who change colleges to CLA are exempt from this requirement. New first-year students with 24 or more PSEO credits may request to be waived from this requirement.  
[UST 1000](#) - UMD Seminar (1.0 - 2.0 cr)

## General Requirements

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two



- degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
  3. Students must complete a minimum of 120 semester credits.
  4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
  5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
  6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
  7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
  8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

## Program Requirements

1. Students will receive a Certificate in Business Administration from the Labovitz School of Business and Economics (LSBE).
2. A second field of study (either a major or minor) is not required.

### Certificate of Business Administration (16 cr)

After the successful completion of this required core, students will receive a Certificate in Business Administration from LSBE. These courses are provided in an online format and can be taken in any order. See Class Search for variable start dates of courses (1st half, 2nd half or full-term). Up to two of the following courses may be substituted with equivalent classroom classes.

- [BUS 2100](#) - Fundamentals of Accounting (2.0 cr)
- [BUS 2200](#) - Fundamentals of Economics (2.0 cr)
- [BUS 2300](#) - Fundamentals of Operations Management (2.0 cr)
- [BUS 2400](#) - Fundamentals of Organizational Management (2.0 cr)
- [BUS 2500](#) - Fundamentals of Applied Statistics (2.0 cr)
- [BUS 2600](#) - Fundamentals of Financial Management (2.0 cr)
- [BUS 2700](#) - Fundamentals of Marketing (2.0 cr)
- [BUS 2800](#) - Fundamentals of Human Resource Management (2.0 cr)

### Required courses (34 cr)

- [TAG 2801](#) - Introduction to Tribal Administration and Governance (3.0 cr)
- [TAG 2820](#) - Foundations of Indigenous Leadership (3.0 cr)
- [TAG 3206](#) - Federal Indian Policy [SOC SCI, CDIVERSITY] (3.0 cr)
- [TAG 3230](#) - American Indian Tribal Government and Law [SOC SCI, CDIVERSITY] (3.0 cr)
- [TAG 3810](#) - Fundamentals of Tribal Strategic Management (3.0 cr)
- [TAG 3820](#) - Fundamentals of Tribal Project Management (3.0 cr)
- [TAG 3997](#) - Internship in American Indian Studies (4.0 - 8.0 cr)
- [TAG 4230](#) - Introduction to Federal Indian Law [SOC SCI, CDIVERSITY] (3.0 cr)
- [TAG 4250](#) - American Indian Diplomacy: Treaties, Compacts, and Agreements [GLOBAL PER] (3.0 cr)
- [TAG 4810](#) - Best Practices in Tribal Administration (3.0 cr)
- [TAG 4840](#) - Current Issues and Opportunities in Tribal Administration and Governance (3.0 cr)

### Advanced Writing Requirement (3 cr)

- [WRIT 31xx](#) - Adv Writing (3 cr)

### **Duluth Campus**

## **Urban and Regional Studies B.A.**

*Geography, Urban, Environmental & Sustain Studies*

### **College of Liberal Arts**

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 120
- Required credits within the major: 51
- Degree: Bachelor of Arts

The urban and regional studies program is an interdisciplinary major, which prepares students for careers in planning, public administration policy analysis, community activism, and other fields related to urban development and urban change. The program incorporates resources from many departments and stresses the inherent interdependence in urban life, such as the connection between urban and rural development, cultural change and economic change, and uneven development. Students gain insight into the complexities of life in urban areas and are encouraged to understand the global context of current urban problems. The program also prepares students for graduate study in planning, public administration, law, and the social sciences.

Honors Requirements: Candidates must have a 3.00 overall GPA and a 3.30 in the major. An honors project and paper must be completed in GEOG 4999. Students who wish to have such work considered for honors must complete a departmental form prior to the second semester of their senior year. Completed project and papers must be approved by the sponsoring faculty member and other members of the faculty in the department.

### **Program Delivery**

This program is available:

- via classroom (the majority of instruction is face-to-face)

### **Admission Requirements**

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

#### **Required prerequisites**

##### **Introductory Requirement (1 cr)**

Transfer students with 24 or more credits and current UMD students who change colleges to CLA are exempt from this requirement. New first-year students with 24 or more PSEO credits may request to be waived from this requirement.

[UST 1000](#) - UMD Seminar (1.0 - 2.0 cr)

### **General Requirements**

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

## Program Requirements

1. The study of foreign language is recommended, but not required.
2. Study abroad is encouraged for all students and the department makes every effort to facilitate such experiences.

### Lower Division (20 cr)

- SOC 1101 - Introduction to Sociology [LE CAT6, LECD CAT06, SOC SCI, CDIVERSITY] (4.0 cr)
- SOC 2155 - Introduction to Research Methods and Analysis (4.0 cr)
- URS 1001 - World Cities: An Introduction to Global Urbanization [LE CAT8, SOC SCI, GLOBAL PER] (3.0 cr)
- GEOG 1202 - World Regional Geography [LE CAT8, LEIP CAT08, GLOBAL PER] (3.0 cr)  
or GEOG 1304 - Human Geography [LE CAT6, LECD CAT06, SOC SCI] (3.0 cr)
- ECON 1022 - Principles of Economics: Macro [LE CAT6, SOC SCI] (3.0 cr)  
or ECON 1023 - Principles of Economics: Micro [LE CAT6, SOC SCI] (3.0 cr)
- POL 1011 - American Government and Politics [LE CAT6, SOC SCI] (3.0 cr)  
or POL 1610 - Introduction to Political Theory [LE CAT7, HUMANITIES] (3.0 cr)

### Upper Division (16 cr)

- ARTH 2300 - The City as a Work of Art [LE CAT9, LEIP CAT09, HUMANITIES] (3.0 cr)
- GEOG 3334 - Urban Geography (3.0 cr)
- GEOG 3335 - Urban Planning (3.0 cr)
- GEOG 3481 - Urban Ecology (3.0 cr)
- GEOG 4612 - Field Techniques (4.0 cr)  
or SOC 3155 - Quantitative Research Methods and Analysis (4.0 cr)  
or SOC 3156 - Qualitative Research Methods and Analysis (4.0 cr)

### Internship (3 cr)

Students must take a minimum of 3 credits.

- URS 3097 - Internship in Urban and Regional Studies (1.0 - 6.0 cr)

### Elective Categories (8 cr)

Students are required to complete one of the following categories consisting of three or more classes. URS 3991 (independent study) may be applicable to an area with departmental consent.

#### Sustainability, Public Policy, and Public Administration

Take 3 or more course(s) from the following:

- ECON 4570 - Public Finance (3.0 cr)
- ECON 3721 - Natural Resource and Energy Economics (3.0 cr)
- ECON 3777 - Environmental Economics (3.0 cr)
- ES 3500 - Ecological Economics (3.0 cr)
- GEOG 3422 - Natural Hazards (3.0 cr)
- GEOG 4446 - Water Processes and Management (3.0 cr)
- POL 3015 - State and Local Government (4.0 cr)
- SOC 3901 - Social Change and Social Policy (3.0 cr)
- WS 3600 - Ecofeminism: Theories and Sustainable Practices [SUSTAIN] (3.0 cr)

#### or Urban Society and Culture

Take 3 or more course(s) from the following:

- SOC 3821 - Sociology of Community (3.0 cr)
- SOC 3945 - Social Stratification (3.0 cr)
- SOC 4949 - Race and Ethnic Relations (3.0 cr)
- WS 2101 - Women, Race, and Class [LE CAT8, LECD CAT08, SOC SCI, CDIVERSITY] (3.0 cr)

#### or Spatial Analysis and Planning

Take 3 or more course(s) from the following:

- FORS 3205 - GEOG 3205 Mapping in Belize (3.0 cr)
- GEOG 2552 - Introduction to Maps and Geospatial Information [LE CAT2, LOGIC & QR] (3.0 cr)
- GEOG 3532 - Map Design and Geographic Visualization (4.0 cr)
- GIS 4533 - Distributed Geographic Information Services: Mobile and Web Based Solutions (4.0 cr)
- GIS 3563 - Geographic Information Science I: Theory and Analysis (4.0 cr)
- GIS 3564 - Geographic Information Science II: Applied GIS (4.0 cr)
- GIS 3580 - Earth Imagery (4.0 cr)
- GIS 4585 - Applied Statistics in GIS (4.0 cr)
- GIS 5571 - Geographic Information Science in Urban Analysis (4.0 cr)
- GIS 5572 - Environmental Application of GIS (4.0 cr)
- GIS 5573 - GIScience in Regional Sustainability Applications (4.0 cr)
- GIS 5581 - Digital Image Processing and Analysis (4.0 cr)

#### or Cities in a Global Society

Take 3 or more course(s) from the following:



- AAAS 3306 - Cities in Africa (3.0 cr)
- ANTH 4500 - The New Commons: Governing Shared Resources for Present and Future Generations [SUSTAIN] (4.0 cr)
- ECON 3150 - Development Economics (3.0 cr)
- FORS 3167 - GEOG 3167 Cultural Geography of Iceland (3.0 cr)
- FORS 3800 - COMM 3800/GEOG 3800 Grassroots Activism in India (4.0 cr)
- GEOG 3370 - Geographies of Development (3.0 cr)
- POL 3451 - Theories of International Relations (4.0 cr)
- POL 3570 - Politics of Developing Nations (3.0 cr)
- POL 3575 - Latin American Politics and Development (4.0 cr)
- WS 3000 - Transnational Perspectives on Feminism [SOC SCI, GLOBAL PER] (3.0 cr)
- WS 3001 - Gender Relations in the Global South [GLOBAL PER] (3.0 cr)

**Advanced Writing Requirement (3 cr)**

WRIT 31xx - Adv Writing (3 cr)



## Duluth Campus

# Women, Gender and Sexuality Studies B.A.

*Women, Gender & Sexuality Studies*

## College of Liberal Arts

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 120
- Required credits within the major: 39
- Degree: Bachelor of Arts

Women, Gender and Sexuality Studies is an interdisciplinary field that includes the study of: 1) the experiences, conditions, and social realities of women of different races, ethnicities, nationalities, religions, classes, abilities, and sexual orientations in a global context; 2) the ways in which gender distinctions and the construction and intersection of gender, sexuality, race, and class have affected human lives, and 3) feminist scholarship.

Academically, the department seeks to provide students with a solid background in knowledge about gender, sexuality, race, class, and international issues; feminist analysis; critical thinking; and oral and written communication; and actively engage students in the generation of new knowledge and areas of inquiry. The department aims to prepare students for meaningful participation and contribution in an inclusive and diverse society, to be local, national, and global citizens, and to participate effectively and contribute meaningfully in a diverse workplace. Finally, the department intends to provide a nurturing environment for the whole person to help each student find her or his own strengths, gifts, and path, as well as to raise awareness about the way that path concerns and connects with others in local and global contexts.

Women, Gender and Sexuality Studies majors find meaningful work in a variety of fields, including work with non-profits, international agencies, peace and justice organizations, LGBTQ rights organizations, medicine and midwifery, public health, social work, education, law, business, and the arts.

## Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

## Admission Requirements

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

### Required prerequisites

#### Introductory Requirement (1 cr)

Transfer students with 24 or more credits and current UMD students who change colleges to CLA are exempt from this requirement. New first-year students with 24 or more PSEO credits may request to be waived from this requirement.

[UST 1000](#) - UMD Seminar (1.0 - 2.0 cr)

## General Requirements

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.

8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

## Program Requirements

1. A second field of study (either a minor or another major). Students majoring in WGSS and minoring in LGBTQ Studies must declare a third field of study (either another major or minor). This addresses the overlapping of courses across programs.

2. Advanced writing requirement: WRIT 31xx must be completed before taking WS 4000.

3. Only 3 credits from WS 3891 may be counted towards the major. Only 6 credits from WS 3897 may be counted towards the major. NOTE: Students may apply no more than 9 credits total toward the major from the following combination of courses: FORS 3574/WS 3896, WS 3891, 3897, 5897, and 5991.

4. Study abroad is encouraged for all students and the department makes every effort to facilitate such experiences.

### Core Courses (17 cr)

WS 1000 - Introduction to Women's and Gender Studies [LE CAT7, LECD CAT07, CULT DIV, SOC SCI, CDIVERSITY] (3.0 cr)

WS 2101 - Women, Race, and Class [LE CAT8, LECD CAT08, SOC SCI, CDIVERSITY] (3.0 cr)

WS 3100 - Feminist Thought [HUMANITIES, CDIVERSITY] (4.0 cr)

WS 4000 - Seminar (4.0 cr)

WS 3000 - Transnational Perspectives on Feminism [SOC SCI, GLOBAL PER] (3.0 cr)

or WS 3001 - Gender Relations in the Global South [GLOBAL PER] (3.0 cr)

### Electives (18 cr)

Most WS 3xxx-5xxx courses may apply here. Students must take at least 12 credits from WS within the 18 electives. Students may apply two courses from the "related courses (optional)" area towards this requirement. NOTE: Students may apply no more than 9 credits total toward the major from the following combination of courses: FORS 3574/WS 3896, WS 3891, 3897, 5897, and 5991.

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

- WS 3002 - Latin American Women: Culture and Politics (3.0 cr)
- WS 3150 - Women-Identified Culture [CDIVERSITY] (3.0 cr)
- WS 3200 - Women's Autobiographies [GLOBAL PER] (3.0 cr)
- WS 3250 - Women, Peace and War [GLOBAL PER] (3.0 cr)
- WS 3300 - Women and Spirituality [HUMANITIES, CDIVERSITY] (3.0 cr)
- WS 3350 - Women and the Law [CDIVERSITY] (3.0 cr)
- WS 3400 - Women and Film [GLOBAL PER] (3.0 cr)
- WS 3595 - Special Topics: (Various Titles to be Assigned) (1.0 - 4.0 cr)
- WS 3600 - Ecofeminism: Theories and Sustainable Practices [SUSTAIN] (3.0 cr)
- WS 3700 - Women and Love (3.0 cr)
- WS 3750 - Voices of African Women [GLOBAL PER] (3.0 cr)
- WS 3775 - Gender, Globalization and Food [SUSTAIN] (3.0 cr)
- WS 3800 - Feminist Activism and Community Organizing (4.0 cr)
- WS 5595 - Special Topics: (Various Titles to Be Assigned) (3.0 cr)
- Take 0 - 3 credit(s) from the following:
  - WS 3891 - Independent Study (1.0 - 3.0 cr)
- Take 0 - 6 credit(s) from the following:
  - WS 3897 - Internship (1.0 - 9.0 cr)
- Take 0 - 9 credit(s) from the following:
  - FORS 3574 - WS 3896 International Fieldwork in Women's Studies (1.0 - 6.0 cr)
  - WS 3891 - Independent Study (1.0 - 3.0 cr)
  - WS 3897 - Internship (1.0 - 9.0 cr)
  - WS 5897 - Teaching Internship in Women's Studies (1.0 - 2.0 cr)
  - WS 5991 - Independent Study (1.0 - 4.0 cr)

### •Related Courses (optional)

Most LGBT 3xxx courses apply here.

Take no more than 2 course(s) from the following:

- AMIN 3450 - American Indian Women [CDIVERSITY] (3.0 cr)
- ANTH 3080 - Cultural Constructions of the Body (4.0 cr)
- ANTH 3628 - Women in Cross-Cultural Perspective (3.0 cr)
- ARTH 2815 - Women Artists in History [LE CAT9, LECD CAT09, FINE ARTS] (3.0 cr)
- ARTH 3140 - Women in Art/Visual Culture in Latin America (3.0 cr)
- CRIM 4323 - Women and Justice (3.0 cr)
- ENGL 2581 - Women Writers [LE CAT9, LECD CAT09, HUMANITIES] (4.0 cr)
- HLTH 3118 - Women's Health Issues (3.0 cr)



- LGBT 3000 - Queer Theory (3.0 cr)
- LGBT 3151 - Queer Cinema in International Perspective [GLOBAL PER] (3.0 cr)
- LGBT 3152 - History of the International Homosexual Rights Movement (1895 - present) [GLOBAL PER] (3.0 cr)
- LGBT 3153 - Queer Media [CDIVERSITY] (3.0 cr)
- POL 3040 - Women and Politics (3.0 cr)
- PSY 3215 - Topics in Human Sexuality (3.0 cr)
- SOC 4925 - Sociology of Rape (3.0 cr)
- SOC 4947 - Sociology of Gender Identities and Systems (3.0 cr)

**Advanced Writing Requirement (3 cr)**

Advanced writing requirement must be completed before taking WS 4000.

WRIT 31xx - Adv Writing (3 cr)

### Duluth Campus

## Women, Gender and Sexuality Studies Minor

*Women, Gender & Sexuality Studies*

### College of Liberal Arts

- Program Type: Undergraduate minor related to major
- Requirements for this program are current for Fall 2016
- Required credits in this minor: 18

The women, gender and sexuality studies minor is designed to acquaint students with the past and present status, contributions, and concerns of women of diverse backgrounds; the many ways in which gender distinctions have affected human lives, as well as the construction and intersection of gender, race, and class; feminist scholarship; and critical and theoretical analyses and reflection upon these topics.

### Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

### Minor Requirements

#### Core (3 cr)

[WS 1000](#) - Introduction to Women's and Gender Studies [LE CAT7, LECD CAT07, CULT DIV, SOC SCI, CDIVERSITY] (3.0 cr)  
or [WS 2101](#) - Women, Race, and Class [LE CAT8, LECD CAT08, SOC SCI, CDIVERSITY] (3.0 cr)

#### Electives (15 cr)

Students must take at least 12 credits from women's studies (WS) courses. Students may apply a maximum of one course from the "related courses (optional)" area towards this requirement. NOTE: Students may apply no more than 3 credits total toward the minor from the following combination of courses: FORS 3574/WS 3896, WS 3891, 3897, 5897, and 5991.

#### WS Electives

Most WS 2xxx-5xxx courses apply here.

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

- [WS 2001](#) - Introduction to Lesbian Gay Bisexual and Transgender Studies [LE CAT8, LECD CAT08, CDIVERSITY] (4.0 cr)
- [WS 3000](#) - Transnational Perspectives on Feminism [SOC SCI, GLOBAL PER] (3.0 cr)
- [WS 3001](#) - Gender Relations in the Global South [GLOBAL PER] (3.0 cr)
- [WS 3002](#) - Latin American Women: Culture and Politics (3.0 cr)
- [WS 3100](#) - Feminist Thought [HUMANITIES, CDIVERSITY] (4.0 cr)
- [WS 3150](#) - Women-Identified Culture [CDIVERSITY] (3.0 cr)
- [WS 3200](#) - Women's Autobiographies [GLOBAL PER] (3.0 cr)
- [WS 3250](#) - Women, Peace and War [GLOBAL PER] (3.0 cr)
- [WS 3300](#) - Women and Spirituality [HUMANITIES, CDIVERSITY] (3.0 cr)
- [WS 3350](#) - Women and the Law [CDIVERSITY] (3.0 cr)
- [WS 3400](#) - Women and Film [GLOBAL PER] (3.0 cr)
- [WS 3595](#) - Special Topics: (Various Titles to be Assigned) (1.0 - 4.0 cr)
- [WS 3600](#) - Ecofeminism: Theories and Sustainable Practices [SUSTAIN] (3.0 cr)
- [WS 3700](#) - Women and Love (3.0 cr)
- [WS 3750](#) - Voices of African Women [GLOBAL PER] (3.0 cr)
- [WS 3775](#) - Gender, Globalization and Food [SUSTAIN] (3.0 cr)
- [WS 3800](#) - Feminist Activism and Community Organizing (4.0 cr)
- [WS 4000](#) - Seminar (4.0 cr)
- [WS 5595](#) - Special Topics: (Various Titles to Be Assigned) (3.0 cr)
- Take at most 3 credit(s) from the following:
  - [FORS 3574](#) - WS 3896 International Fieldwork in Women's Studies (1.0 - 6.0 cr)
  - [WS 3891](#) - Independent Study (1.0 - 3.0 cr)
  - [WS 3897](#) - Internship (1.0 - 9.0 cr)
  - [WS 5897](#) - Teaching Internship in Women's Studies (1.0 - 2.0 cr)
  - [WS 5991](#) - Independent Study (1.0 - 4.0 cr)

#### Related Courses (optional)

Most LGBT 3xxx courses apply here.

Take no more than 1 course(s) from the following:

- [AMIN 3450](#) - American Indian Women [CDIVERSITY] (3.0 cr)



- [ANTH 3080](#) - Cultural Constructions of the Body (4.0 cr)
- [ANTH 3628](#) - Women in Cross-Cultural Perspective (3.0 cr)
- [ARTH 2815](#) - Women Artists in History [LE CAT9, LECD CAT09, FINE ARTS] (3.0 cr)
- [ARTH 3140](#) - Women in Art/Visual Culture in Latin America (3.0 cr)
- [CRIM 4323](#) - Women and Justice (3.0 cr)
- [ENGL 2581](#) - Women Writers [LE CAT9, LECD CAT09, HUMANITIES] (4.0 cr)
- [HLTH 3118](#) - Women's Health Issues (3.0 cr)
- [LGBT 3000](#) - Queer Theory (3.0 cr)
- [LGBT 3151](#) - Queer Cinema in International Perspective [GLOBAL PER] (3.0 cr)
- [LGBT 3152](#) - History of the International Homosexual Rights Movement (1895 - present) [GLOBAL PER] (3.0 cr)
- [LGBT 3153](#) - Queer Media [CDIVERSITY] (3.0 cr)
- [POL 3040](#) - Women and Politics (3.0 cr)
- [PSY 3215](#) - Topics in Human Sexuality (3.0 cr)
- [SOC 4925](#) - Sociology of Rape (3.0 cr)
- [SOC 4947](#) - Sociology of Gender Identities and Systems (3.0 cr)

## Duluth Campus

### Writing Studies B.A.

*English Linguistics and Writing Studies*

#### College of Liberal Arts

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 120
- Required credits within the major: 38 to 41
- Degree: Bachelor of Arts

The major in writing studies explores writing as a field of inquiry: its production, its circulation, its uses, and its role in the development of individuals, professional communities, and societies. The major begins with the history of writing practices, genres, systems of production and distribution. It uses the tools of qualitative, quantitative, and humanistic research to advance those explorations. It culminates in a practical examination of writing in traditional and emerging technologies.

The writing curriculum synthesizes 1) knowledge and experience with writing technologies from a liberal arts, as well as a technical, perspective; 2) practice in applying principles of rhetoric, design, cultural theory, and creative thinking to the production of professional writing projects; and 3) communities and other audiences. Students develop writing skills relevant to professional situations (document design and delivery, the development of varied writing techniques, and persuasive argument) with an understanding of writing's ethical and social implications. They also think reflectively and critically about their role as writers for professional and civic life. Students are encouraged to participate in UMD-sponsored internships in professional writing, corporate communication, editing, and publishing.

### Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

### Admission Requirements

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

#### Required prerequisites

##### Introductory Requirement (1 cr)

Transfer students with 24 or more credits and current University of Minnesota Duluth students who change colleges to College of Liberal Arts are exempt from this requirement. New first-year students with 24 or more PSEO credits may request to be waived from this requirement.

[UST 1000](#) - UMD Seminar (1.0 - 2.0 cr)

### General Requirements

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.



## Program Requirements

Students majoring in Writing Studies must complete a minor or second major in a field other than professional writing or information design.

### Required Core (12 cr)

- [WRIT 1506](#) - Literacy, Technology and Society [LE CAT7, HUMANITIES] (3.0 cr)
- [WRIT 2506](#) - Introduction to Writing Studies (3.0 cr)
- [WRIT 4200](#) - Writing and Cultures (3.0 cr)
- [WRIT 4250](#) - New Media Writing (3.0 cr)

### Advanced Writing Requirement (3 cr)

- [WRIT 31xx](#) - Adv Writing (3 cr)

### Required Capstone (1 cr)

- [WRIT 4506](#) - Capstone Course: Senior Portfolio Preparation (1.0 cr)

### Writing Electives (15 cr)

Take 15 credits from the following list. Most WRIT 1xxx-4xxx courses apply here. (This excludes WRIT 1120 and 31xx.) WRIT 4197-Internship may be repeated for a total of 6 credits.

Take 15 or more credit(s) from the following:

- [WRIT 1006](#) - Journal and Memoir Writing [LE CAT9] (3.0 cr)
- [WRIT 1017](#) - Freshman Seminar: Honors: The Rhetoric of Popular Culture [LE CAT8] (3.0 cr)
- [WRIT 2220](#) - Information Design Skills (1.0 cr)
- [WRIT 2595](#) - Special Topics: (Various Titles to be Assigned) (1.0 - 4.0 cr)
- [WRIT 4100](#) - Introduction to Grant Writing and Project Planning (3.0 cr)
- [WRIT 4197](#) - Internship in Writing (1.0 - 3.0 cr)
- [WRIT 4220](#) - Document Design and Graphics (3.0 cr)
- [WRIT 4230](#) - Web Design and Digital Culture (3.0 cr)
- [WRIT 4260](#) - Visual Rhetoric and Culture (3.0 cr)
- [WRIT 4290](#) - Advanced Web Design and Digital Culture (3.0 cr)
- [WRIT 4300](#) - Research Methods for the Study of Writing (3.0 cr)
- [WRIT 4591](#) - Independent Study (1.0 - 3.0 cr)

### Related Field Electives (6-9 cr)

Take any 2-3 1xxx-4xxx level courses in COMM, ENGL, FMIS, JOUR, LING or TH, totaling at least 6 credits.

- COMM 1xxx-4xxx
- or ENGL 1xxx-4xxx
- or FMIS 1xxx-4xxx
- or JOUR 1xxx-4xxx
- or LING 1xxx-4xxx
- or TH 1xxx-4xxx

## Program Sub-plans

A sub-plan is not required for this program.

## Duluth Campus

# Autism Spectrum Disorders Certificate

Education

## College of Education and Human Service Professions

- Program Type: Undergraduate credit certificate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 12
- This program requires summer terms.
- Degree: Autism Spectrum Disorders Certificate

This program is designed for special education teachers, prospective teachers, paraprofessional, and other related professional who work with children and youth with Autism Spectrum Disorders. The three course online series offers the opportunity to expand knowledge and expertise in the area of Autism Spectrum Disorders (ASD). Participants in the 12 credit certificate will learn research based best practices in the field of ASD, consistent with Minnesota Department of Education competencies. The certificate is designed to be completed in three semesters and must be taken in the order listed. Students must begin coursework in the summer semester.

## Program Delivery

This program is available:

- completely online (all program coursework can be completed online)

## Admission Requirements

Students must complete 60 credits before admission to the program.

A GPA above 2.0 is preferred for the following:

- 2.50 already admitted to the degree-granting college
- 2.50 transferring from another University of Minnesota college
- 2.50 transferring from outside the University

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

## General Requirements

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

## Program Requirements

### Required Courses

[SPED 4250](#) - Foundations of Autism Spectrum Disorders (4.0 cr)

[SPED 4270](#) - Methods for Teaching Children and Youth with Autism Spectrum Disorders (4.0 cr)

[SPED 4260](#) - Language and Social Skills for Children and Youth with Autism Spectrum Disorders (4.0 cr)





## Duluth Campus

### Coaching Minor

*D Applied Human Sciences*

#### College of Education and Human Service Professions

- Program Type: Undergraduate free-standing minor
- Requirements for this program are current for Fall 2016
- Required credits in this minor: 21

The coaching minor program prepares graduates to coach in a variety of sites, including schools, public agencies, and youth organizations. The curriculum prepares students to assess, plan, administer, and instruct student athletes.

The coaching minor meets or exceeds the National Association for Sport and Physical Education (NASPE) standards for coaching, with emphasis in coaching and administrative theory, psychology, medical and nutritional concerns, risk management, and skill development. Requirements and admission applications can be obtained from the Department of Health, Physical Education, and Recreation (HPER).

Postbaccalaureate students seeking a coaching minor should have their transcript evaluated by the HPER department.

### Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

### Minor Requirements

#### Coaching Minor Courses (17 cr)

- [CC 3117](#) - Functional Anatomy and Sport Injury Management (3.0 cr)
- [CC 3150](#) - Coaching Methods (3.0 cr)
- [CC 3160](#) - Psychological Aspects of Coaching and Athletic Performance (3.0 cr)
- [CC 3161](#) - Administrative Aspects of Coaching (3.0 cr)
- [CC 3997](#) - Coaching Practicum (2.0 cr)
- [ESAT 2400](#) - Applied Exercise Science (3.0 cr)

#### Electives (4 cr)

Take 4 or more credit(s) from the following:

- [CC 3170](#) - Coaching and Officiating Football (2.0 cr)
- [CC 3171](#) - Coaching and Officiating Basketball (2.0 cr)
- [CC 3172](#) - Coaching and Officiating Volleyball (2.0 cr)
- [CC 3173](#) - Coaching and Officiating Baseball (2.0 cr)
- [CC 3174](#) - Coaching and Officiating Soccer (2.0 cr)
- [CC 3175](#) - Coaching and Officiating Ice Hockey (2.0 cr)
- [CC 3178](#) - Coaching and Officiating Track and Field (2.0 cr)
- [CC 3179](#) - Coaching and Officiating Softball (2.0 cr)

### **Duluth Campus**

## **Communication Sciences and Disorders B.A.Sc.**

*Communication Sciences & Disorders*

### **College of Education and Human Service Professions**

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 120
- Required credits within the major: 65 to 68
- Degree: Bachelor of Applied Science

The B.A.Sc. in communication sciences and disorders prepares students for admission to professional graduate degree or licensure programs in speech-language pathology, audiology, or education of the hearing impaired. This pre-professional undergraduate program also prepares students to work as clinical aides to communication disorders specialists working in a variety of human service and health care settings.

The program includes the study of phonetics, the anatomy and physiology of the speech and hearing mechanisms, the normal development of speech and language, and the nature and treatment of disorders of speech, language, and hearing disorders.

### **Program Delivery**

This program is available:

- via classroom (the majority of instruction is face-to-face)

### **Admission Requirements**

Students must complete 12 credits before admission to the program.

Freshman and transfer students are usually admitted to pre-major status before admission to this major

A GPA above 2.0 is preferred for the following:

- 3.00 already admitted to the degree-granting college
- 3.00 transferring from another University of Minnesota college
- 3.00 transferring from outside the University

Upon completion of at least 12 credits at UMD and an overall GPA of 3.0, including transfer courses, a student is admitted to the program; freshman and transfer students are usually admitted to pre-major status before admission to this major. Pre-CSD majors or students with other declared majors who have an overall University of Minnesota cumulative GPA of 3.00, including transfer courses and have completed a minimum of 12 credits, may declare a CSD major. When a student is ready to declare a CSD major, his/her CSD academic adviser notifies the CEHSP Academic Services Office to institute the change in status from pre-major to major; students must be admitted majors in order to enroll in any upper division core courses. Mandatory advising is in effect for all students with fewer than 60 credits and for students whose cumulative GPAs fall below 3.00 (including transfer work). For information about University of Minnesota admission requirements, visit the Office of Admissions website.

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

### **General Requirements**

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.

7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

## Program Requirements

1. Compliance with general regulations governing granting of degrees.
2. Students seeking two degrees (e.g., a BA and B.A.Sc.) must fulfill the major requirements for both degrees.
3. Students are required to review their degree status in the CEHSP Advising & Academic Services Office early in their senior year.

### Introductory Course (1 cr)

This course will be waived for transfer students or students who change colleges from a college where it is not required. Register course for 1 credit.

[UST 1000](#) - UMD Seminar (1.0 - 2.0 cr)

### Lower Division Core (6 cr)

[CSD 1100](#) - Phonetics [LE CAT3] (2.0 cr)

[CSD 2230](#) - Introduction to Human Communication Disorders [LE CAT8, LECD CAT08, SOC SCI, CDIVERSITY] (3.0 cr)

[CSD 2400](#) - Clinical Observation of Communication Disorders (1.0 cr)

### Junior Band (19 cr)

Must be admitted to the CSD major. Courses should be taken concurrently.

#### Fall (10 cr)

[CSD 3103](#) - Anatomy of Speech and Hearing Mechanisms (3.0 cr)

[CSD 3131](#) - Language Development (4.0 cr)

[CSD 3150](#) - Fundamentals and Clinical Applications of Speech Science (3.0 cr)

#### Spring (9 cr)

[CSD 3160](#) - Fundamentals of Hearing Science (3.0 cr)

[CSD 3200](#) - Articulation and Phonological Disorders (3.0 cr)

[CSD 3232](#) - Language Disorders (3.0 cr)

### Senior Band (18 cr)

#### Fall (9 cr)

[CSD 3241](#) - Foundations of Treatment in Communication Disorders I (3.0 cr)

[CSD 4000](#) - Introductory Statistics for the Behavioral Sciences (3.0 cr)

[CSD 4400](#) - Hearing Disorders and Evaluation (3.0 cr)

#### Spring (9 cr)

[CSD 4150](#) - Neuroanatomy and Neurophysiology in Communication Sciences and Disorders (3.0 cr)

[CSD 4241](#) - Foundations of Treatment in Communication Disorders II (3.0 cr)

[CSD 5400](#) - Rehabilitative Procedures for the Hard of Hearing (3.0 cr)

### Additional Requirements (21-24 cr)

#### Advanced Writing

[WRIT 3140](#) - Advanced Writing: Human Services (3.0 cr)

or [WRIT 3150](#) - Advanced Writing: Science (3.0 cr)

or [WRIT 3160](#) - Advanced Writing: Social Sciences (3.0 cr)

#### Biology

[BIOL 1001](#) - Biology and Society [LE CAT4, NAT SCI, SUSTAIN] (4.0 cr)

or [BIOL 1011](#) - General Biology I [LE CAT4, NAT SCI] (5.0 cr)

#### Communication

[COMM 1112](#) - Public Speaking [LE CAT3, COMM & LAN] (3.0 cr)

or [COMM 1222](#) - Interpersonal Communication [LE CAT3, LECD CAT03, COMM & LAN] (3.0 cr)

#### Physics

[PHYS 1001](#) - Introduction to Physics I [LE CAT4, NAT SCI] (5.0 cr)

or [PHYS 1011](#) - Conceptual Physics [LE CAT5, NAT SCI] (3.0 cr)

#### Psychology

[PSY 1003](#) - General Psychology [LE CAT6, SOC SCI] (4.0 cr)

[PSY 2021](#) - Developmental Psychology [LE CAT6, LECD CAT06, SOC SCI, CDIVERSITY] (4.0 cr)

### Certification and Licensure



In order to work in the state of Minnesota, speech-language pathologists must hold a master's degree, a certificate of clinical competence from the American speech-Language-Hearing association (ASHA), and license from either the MN Department of Health or MN Department of Education. Audiologists must hold a doctoral degree, a certificate of clinical competency from ASHA or board certification from the American Academy of Audiology, and a license from the MN Department of Health.

**Accreditation**

The graduate program is accredited by the Council of Academic Accreditation (CAA) of the American Speech-Language-Hearing Association (ASHA). CAA accreditation is recognized by the U.S Department of Education and the Council for Higher Education.



## Duluth Campus

# Deaf Studies Minor

Education

## College of Education and Human Service Professions

- Program Type: Undergraduate free-standing minor
- Requirements for this program are current for Fall 2016
- Required credits in this minor: 16 to 22

Deaf studies minor offers American Sign Language (ASL) competency and cultural knowledge for individuals who need or wish to communicate with employees, co-workers, family members, and friends. ASL is present in every realm of modern life, as deaf, hard of hearing, and deaf-blind people seek education and equitable employment. The minor also meets the needs of students interested in pursuing further study in sign language interpreting or deaf education.

While the deaf studies minor complements degrees in virtually any field of study, it is particularly advantageous to pair with majors in education, human services, liberal arts, theatre, and business.

## Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

## Minor Requirements

### Core Language Requirements (9-15 cr)

Students with previous language study may be exempt from some core requirements and should consult the department about placement.

- [ASL 2001](#) - Beginning American Sign Language I [LE CAT3, LECD CAT03, COMM & LAN] (3.0 cr)
- [ASL 2002](#) - Beginning American Sign Language II [LE CAT3, LECD CAT03, COMM & LAN] (3.0 cr)
- [ASL 3003](#) - Intermediate American Sign Language I [COMM & LAN] (3.0 cr)
- [ASL 3004](#) - Intermediate American Sign Language II [COMM & LAN] (3.0 cr)
- [ASL 4005](#) - Advanced American Sign Language [COMM & LAN] (3.0 cr)

### Core Requirements (4 cr)

- [ASL 4110](#) - Deaf Culture (3.0 cr)
- [ASL 4298](#) - American Sign Language Skill Building Workshop (1.0 cr)

### Electives (3 cr)

Take 3 or more credit(s) from the following:

- [ASL 4100](#) - Linguistics of American Sign Language (3.0 cr)
- [ASL 4105](#) - History of the American Deaf Community [CDIVERSITY] (3.0 cr)
- [ASL 4295](#) - Special Topics: Various Titles to be assigned (1.0 - 3.0 cr)

## Duluth Campus

# Early Childhood Studies Minor

Education

## College of Education and Human Service Professions

- Program Type: Undergraduate free-standing minor
- Requirements for this program are current for Fall 2016
- Required credits in this minor: 23 to 25

Current research in the field of child development and education emphasizes the importance of early investment in quality programming for young children and families. The recognition of critical periods has altered the landscape of best practices and hence the required competencies for professionals from across disciplines who interface with young children and their families (e.g. social work, psychology, communication sciences and disorders, public health, nursing, occupational and physical therapy, medicine). In response, the Department of Education has designed a minor with an interdisciplinary curriculum. At the core of the minor is the focus on quality services and programming for young children and families.

Quality programming and service provision depends on highly trained professionals from across disciplines. A primary intent of the Early Childhood Minor is to foster the use of an interdisciplinary lens in preservice learners. Courses within the minor afford the opportunity for future professionals in human services related fields to think and work across disciplinary silos. The emphasis on interdisciplinary approaches harnesses the capacity across discipline-specific expertise and increases the likelihood of more seamless and efficient services delivered in future practice.

The Early Childhood Minor is intended to provide students with knowledge and skills designed to support scholarly and community-based work with children and their caregivers. A comprehensive approach to the foundation of child health and well being is integrated throughout coursework, drawing from fields of infant and early childhood mental health, and interpersonal neurobiology. Emphasis is placed on the integration and application of attachment theory, the neuro-relational underpinnings of development, and the role of reflective capacity in caregiving. Throughout the minor, participants examine aspects of early caregiver-child relationships, the impact of early adverse experiences on brain development, the role of the stress response system, and the importance of protective factors in changing long-term developmental outcomes. Specific course-related activities include infant/toddler observation, reflective supervision, and examination of evidence-based approaches to working with children and families at risk. Further, policy relevant to programs for young children and their families is highlighted and the role of "self" as child advocate is discussed. The research based early childhood curriculum is designed to support students who are preparing to work in areas that focus on children and families.

## Program Delivery

This program is available:

- partially online (between 50% to 80% of instruction is online)

## Admission Requirements

Students must complete 15 credits before admission to the program.

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

## Minor Requirements

### Required Core (17 cr)

- [ECH 2025](#) - Educating the Human Brain [SOC SCI] (3.0 cr)
- [ECH 3050](#) - Observing Early Relationships in Infants and Toddlers (4.0 cr)
- [EDUC 1000](#) - Human Development (3.0 cr)
- [SPED 3103](#) - Infants and Toddlers with Special Needs (4.0 cr)
- [SPED 3109](#) - Supporting Social/Emotional Development Birth-8 (3.0 cr)

### Electives (6 - 8 cr)

Must take courses from at least 2 designators.

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

- [CSD 3130](#) - Language Development and Disorders (4.0 cr)
- [CSD 3131](#) - Language Development (4.0 cr)
- [HLTH 1100](#) - Health and Wellness Strategies for Life [LE CAT8, SUSTAIN] (3.0 cr)
- [HLTH 1470](#) - Human Nutrition [LE CAT5, NAT SCI] (3.0 cr)
- [HLTH 3341](#) - Encountering Death and Grief: A Cross-Cultural Journey [CDIVERSITY] (3.0 cr)
- [PSY 1003](#) - General Psychology [LE CAT6, SOC SCI] (4.0 cr)



- [PSY 2021](#) - Developmental Psychology [LE CAT6, LECD CAT06, SOC SCI, CDIVERSITY] (4.0 cr)
- [PSY 2023](#) - Marriages and Families Worldwide [LE CAT8, LEIP CAT08, GLOBAL PER] (4.0 cr)
- [SW 1000](#) - Introduction to Social Welfare [SOC SCI] (3.0 cr)
- [SW 1619](#) - Race, Class, and Gender in the United States [LE CAT8, LECD CAT08, SOC SCI, CDIVERSITY] (3.0 cr)
- [SW 4113](#) - Introduction to Child Welfare Practice (3.0 cr)



## Duluth Campus

# Educational Computing and Technology Certificate

Education

## College of Education and Human Service Professions

- Program Type: Undergraduate credit certificate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 15 to 16
- Degree: Certificate in Educational Computing/Technology

This certificate is designed for students interested in expanding their knowledge and skills in educational computing and technology. The certificate provides basic-through-advanced training in computer and related technologies. This hands-on program builds upon basic computer literacy skills such as micro computing, word processing, spreadsheets, databases, graphics, desktop publishing, and the use of peripherals such as CD-ROM, scanners, digital cameras, digital video cameras, and Web cams. It expands knowledge and skills in additional technologies including Power Point, Hyper Studio, the Internet/World Wide Web, electronic mail, Web quests, video conferencing, digital video editing, and a variety of teacher administrative software focusing on the further development of technology skills and their infusion into the P-12 classrooms.

The program is designed for professionals, paraprofessionals, and others who wish to concentrate in educational computing and technology. Student projects are tailored to your personal interests and emphasize practical application for use in school classroom settings.

This certificate is at one of three levels: undergraduate, graduate, or noncredit; students must decide what level of the certificate they want to pursue BEFORE enrolling in the first course.

This certificate is not eligible for financial aid.

## Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

## Admission Requirements

Students must complete 60 credits before admission to the program.

A GPA above 2.0 is preferred for the following:

- 2.50 already admitted to the degree-granting college
- 2.50 transferring from another University of Minnesota college
- 2.50 transferring from outside the University

Completed 60 semester credits, have an overall GPA of 2.5, and have satisfactorily completed at least two-thirds of the most recent 30 semester credits attempted.

If you have completed a bachelor's degree, you may choose to earn the certificate at the undergraduate level. Once admitted to the undergraduate certificate, you will not be allowed to change your undergraduate certificate credits to graduate certificate credits at a later time.

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

## General Requirements

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through



courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.

6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

## Program Requirements

### Required Courses

- EDUC 5413 - Teaching With Technology (4.0 cr)
- EDUC 5414 - Using Technology for the Administrative Tasks of Teaching (4.0 cr)
- EDUC 5415 - Teaching Online and Hybrid Courses (4.0 cr)
- EDUC 2000 - Technology for Teaching and Learning (3.0 cr)
  - or EDUC 3412 - The Computer in Education (4.0 cr)
  - or EDUC 5412 - The Computer in Education (4.0 cr)

### Duluth Campus

## Environmental and Outdoor Education B.A.Sc.

*D Applied Human Sciences*

### College of Education and Human Service Professions

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 122 to 123
- Required credits within the major: 98 to 99
- This program requires summer terms.
- Degree: Bachelor of Applied Science

The bachelor of applied science (B.A.Sc.) in environmental and outdoor education prepares students for professional careers in outdoor education allowing them to work in non-formal outdoor education settings such as nature centers, city, state, or national parks, college outdoor programs, or for commercial agencies. Core components include program planning and delivery, education methods, physical skills development, management, facilities coordination, evaluation, and principles of recreation. The recreation major is a four-year curriculum including one full semester of field placement in an outdoor educational setting.

This major provides professional training for nontraditional education settings that may not require a teaching license as a prerequisite credential. Refer to the environmental education emphasis under the teaching life science and/or teaching earth and space science majors for training that includes a teaching licensure.

### Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

### Admission Requirements

Freshman and transfer students are usually admitted to pre-major status before admission to this major

A GPA above 2.0 is preferred for the following:

- 2.50 already admitted to the degree-granting college
- 2.50 transferring from another University of Minnesota college
- 2.50 transferring from outside the University

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

#### Required prerequisites

##### Introductory Course (1 cr)

This course will be waived for transfer students or students who change colleges from a college where it is not required.

Register course for one credit.

[UST 1000](#) - UMD Seminar (1.0 - 2.0 cr)

##### Lower Division Core (24 - 25 cr)

[ENED 1000](#) - Introduction to Environmental and Outdoor Education (4.0 cr)

[ENED 1203](#) - Outdoor Skills I (2.0 cr)

[ENED 1204](#) - Outdoor Skills II (2.0 cr)

[ENED 2000](#) - Technology in Outdoor Education (3.0 cr)

[ENED 2300](#) - Teaching and Learning (3.0 cr)

##### Biology

[BIOL 2800](#)-Understanding the Environment: Ecology for Educators (5.0 cr) UMTC will transfer as a substitute.

[BIOL 1001](#) - Biology and Society [LE CAT4, NAT SCI, SUSTAIN] (4.0 cr)

or [BIOL 1011](#) - General Biology I [LE CAT4, NAT SCI] (5.0 cr)

##### Physical Education

Take 2 or more credit(s) from the following:

- [PE 1500](#) - Cross-Country Skiing [PE] (1.0 cr)
- [PE 1502](#) - Alpine Skiing [PE] (1.0 cr)
- [PE 1507](#) - Introduction to River Kayaking [PE] (1.0 cr)
- [PE 1508](#) - Flatwater Canoeing [PE] (1.0 cr)
- [PE 1510](#) - Whitewater Kayaking [PE] (2.0 cr)
- [PE 1511](#) - Sea Kayaking (1.0 cr)

- PE 1512 - Fishing Skills [PE] (1.0 cr)
- PE 1530 - Rock Climbing [PE] (1.0 cr)
- PE 1531 - Intermediate Rock Climbing (1.0 cr)
- PE 2240 - Lifeguarding Today (1.0 cr)
- PE 2500 - Advanced Nordic Ski: Telemark and Backcountry Ski Techniques (2.0 cr)

#### Psychology

- PSY 1003 - General Psychology [LE CAT6, SOC SCI] (4.0 cr)
- or PSY 2021 - Developmental Psychology [LE CAT6, LECD CAT06, SOC SCI, CDIVERSITY] (4.0 cr)

## General Requirements

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

## Program Requirements

1. Completion of all courses specified for the major with a minimum cumulative 2.00 GPA (including transfer work). No grades lower than C- in courses required for the major.
2. Compliance with general regulations governing granting of degrees. Students are required to review their degree status in the CEHSP Advising & Academic Services Office early in their senior year.
3. Skill Competency: Students who enroll in Physical Education Teaching Education (PETE) teaching skill courses must demonstrate advanced skills competencies for the course. Descriptions of skills required should be reviewed with the course instructor before enrollment.

### Upper Division Core (61 cr)

Exit standards: students must complete a full semester (12 credits) of field placement at a pre-approved site. A minimum of 600 contact hours must be completed. Students may complete their internship at a site located locally, nationally, or internationally. An overall GPA of 2.50 is required for enrollment

- ENED 3309 - Outdoor Leadership (1.0 cr)
- ENED 3310 - Outdoor Leadership Field Experience (2.0 cr)
- ENED 3327 - Large Event Management (3.0 cr)
- ENED 3330 - Outdoor Recreation (3.0 cr)
- ENED 3341 - Field Interpretive Techniques I (3.0 cr)
- ENED 3342 - Field Interpretive Techniques II (3.0 cr)
- ENED 3400 - Program Development and Evaluation in Environmental and Outdoor Education (3.0 cr)
- ENED 4163 - Outdoor Education Methods (3.0 cr)
- ENED 4300 - Therapeutic Applications of Outdoor Education (3.0 cr)
- ENED 4315 - Operations and Management (4.0 cr)
- ENED 4320 - GIS Management for Recreation Professionals (3.0 cr)
- ENED 4410 - Ropes Course Management (3.0 cr)
- ENED 4555 - Foundations of Environmental Education (3.0 cr)
- ENED 4565 - Young Children, Nature, and Sustainability [SUSTAIN] (3.0 cr)
- ENED 4601 - Wilderness Philosophy (2.0 cr)
- ENED 4996 - Outdoor Education Internship (12.0 cr)



- HPER 3100 - Risk Management (2.0 cr)
- PETE 3501 - Teaching Cross-Country Skiing (1.0 cr)
- PETE 3505 - Teaching Outdoor Skills I (2.0 cr)
- PETE 3507 - Teaching Outdoor Skills II (2.0 cr)

**Approved Electives (9 cr)**

Take 9 or more credit(s) from the following:

- ENED 4991 - Independent Study (1.0 - 4.0 cr)
- ENED 4992 - Readings in Recreation (1.0 - 4.0 cr)
- ENED 4997 - Recreation Practicum (3.0 cr)
- ENED 5165 - Theories and Models in Outdoor Education (2.0 cr)
- ENED 5343 - Advanced Field Interpretive Techniques (3.0 cr)
- ENED 5800 - Sustainability Education: Methods and Strategies (3.0 cr)
- ENED 5998 - Outdoor Education Seminar (1.0 cr)
- HLTH 2030 - Applied Human Anatomy (4.0 cr)
- HLTH 2040 - Human Physiology (4.0 cr)
- PETE 3508 - Teaching Rock Climbing (1.0 cr)
- AAAS 2xxx
- AAAS 3xxx
- AAAS 4xxx
- AMIN 2xxx
- AMIN 3xxx
- AMIN 4xxx
- ANTH 2xxx
- ANTH 3xxx
- ANTH 4xxx
- ASL 2xxx
- ASL 3xxx
- ASL 4xxx
- AST 1xxx
- AST 2xxx
- BIOL 1xxx
- BIOL 2xxx
- BIOL 3xxx
- BIOL 4xxx
- BIOL 5xxx
- COMM 2xxx
- COMM 3xxx
- COMM 4xxx
- CST 2xxx
- CST 3xxx
- CST 4xxx
- EDSE 2xxx
- EDSE 3xxx
- EDSE 4xxx
- EDSE 5xxx
- EDUC 2xxx
- EDUC 3xxx
- EDUC 4xxx
- EDUC 5xxx
- ES 1xxx
- ES 2xxx
- ES 3xxx
- ES 4xxx
- ESCI 2xxx
- ESCI 3xxx
- ESCI 4xxx
- GEOG 1xxx
- GEOG 2xxx
- GEOG 3xxx
- GEOG 4xxx
- GEOL 1xxx
- GEOL 2xxx
- GEOL 3xxx



- GEOL 4xxx
- GEOL 5xxx
- HLTH 2xxx
- HLTH 3xxx
- HLTH 4xxx
- MKTG 2xxx
- MKTG 3xxx
- MKTG 4xxx
- PHIL 2xxx
- PHIL 3xxx
- PHIL 4xxx
- POL 2xxx
- POL 3xxx
- POL 4xxx
- PSY 2xxx
- PSY 3xxx
- PSY 4xxx
- SOC 2xxx
- SOC 3xxx
- SOC 4xxx
- URS 2xxx
- URS 3xxx
- URS 4xxx
- WS 2xxx
- WS 3xxx
- WS 4xxx

**Advanced Writing Requirement (3 cr)**

[WRIT 3140](#) - Advanced Writing: Human Services (3.0 cr)  
or [WRIT 3160](#) - Advanced Writing: Social Sciences (3.0 cr)



### **Duluth Campus**

## **Environmental and Outdoor Education Minor**

*D Applied Human Sciences*

### **College of Education and Human Service Professions**

- Program Type: Undergraduate minor related to major
- Requirements for this program are current for Fall 2016
- Required credits in this minor: 25
- This program requires summer terms.

The Environmental and Outdoor Education minor familiarizes students with informal outdoor education settings.

### **Program Delivery**

This program is available:

- via classroom (the majority of instruction is face-to-face)

### **Admission Requirements**

Freshman and transfer students are usually admitted to pre-major status before admission to this major

A GPA above 2.0 is preferred for the following:

- 2.50 already admitted to the degree-granting college
- 2.50 transferring from another University of Minnesota college
- 2.50 transferring from outside the University

Acceptance into this minor requires a minimum GPA of 2.50 plus application to the Department of Health, Physical Education, and Recreation (HPER).

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

### **Minor Requirements**

#### **Lower Division Core (8 cr)**

[ENED 1000](#) - Introduction to Environmental and Outdoor Education (4.0 cr)

[ENED 2300](#) - Teaching and Learning (3.0 cr)

#### **Upper Division Core (17 cr)**

[ENED 3341](#) - Field Interpretive Techniques I (3.0 cr)

or [ENED 3342](#) - Field Interpretive Techniques II (3.0 cr)

[ENED 4163](#) - Outdoor Education Methods (3.0 cr)

[PETE 3505](#) - Teaching Outdoor Skills I (2.0 cr)

or [PETE 3507](#) - Teaching Outdoor Skills II (2.0 cr)

[ENED 4997](#) - Recreation Practicum (3.0 cr)

Take 6 or more credit(s) from the following:

- ENED 3xxx
- ENED 4xxx
- ENED 5xxx

### Duluth Campus

## Exercise Science B.A.Sc.

*D Applied Human Sciences*

### College of Education and Human Service Professions

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 120
- Required credits within the major: 93 to 94
- Degree: Bachelor of Applied Science

The B.A.Sc. offers preparation for graduate school and a sound basis for professional training in the exercise and health sciences. The faculty in exercise science encourages students to develop as active scholars and to participate in undergraduate research. The B.A.Sc. degree is detailed and specific with a required concentration in either health fitness or exercise and sport science. Abilities in math, science, and critical thinking are required for matriculation and graduation.

Most upper level ESAT courses have a graded laboratory component. Students work under supervision in the Exercise Physiology Laboratory, Biomechanics Laboratory, and Motor Learning and Vision Laboratory. Students combine theoretical knowledge with practical experience in electrocardiography, exercise testing, exercise supervision, applied nutrition, and strength and conditioning procedures in a managed learning environment. They monitor and mentor students involved in exercise programs. Labs and other physical facilities allow learning via student research and activity. Substantial opportunities exist for interested students to conduct independent research under the guidance of faculty mentors. Such projects have potential to be presented at the local, state, and national professional meetings. This provides students with unparalleled opportunity for professional development and personal growth.

### Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

### Admission Requirements

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

#### Required prerequisites

##### Introductory Course (1 cr)

This course will be waived for transfer students or students who change colleges from a college where it is not required.

Register course for one credit.

[UST 1000](#) - UMD Seminar (1.0 - 2.0 cr)

##### Courses From Other Programs (37 cr)

First math course, chemistry course and biology course is determined by ACT math score. This program supposes placement directly in each required course.

[BIOL 1011](#) - General Biology I [LE CAT4, NAT SCI] (5.0 cr)

[CHEM 1153](#) - General Chemistry I [LE CAT5, NAT SCI] (4.0 cr)

[CHEM 1154](#) - General Chemistry Lab I [LE CAT4, NAT SCI] (1.0 cr)

[HLTH 1470](#) - Human Nutrition [LE CAT5, NAT SCI] (3.0 cr)

[HLTH 2030](#) - Applied Human Anatomy (4.0 cr)

[HLTH 2040](#) - Human Physiology (4.0 cr)

[MATH 1250](#) - Precalculus Analysis [LE CAT2, LOGIC & QR] (4.0 cr)

[PHYS 1001](#) - Introduction to Physics I [LE CAT4, NAT SCI] (5.0 cr)

[PSY 1003](#) - General Psychology [LE CAT6, SOC SCI] (4.0 cr)

[WRIT 3150](#) - Advanced Writing: Science (3.0 cr)

or [WRIT 3160](#) - Advanced Writing: Social Sciences (3.0 cr)

### General Requirements

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.

2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

## Program Requirements

### ESAT Core Courses (37 cr)

Required for all concentrations

- ESAT 3200 - Motor Learning and Development (5.0 cr)
- ESAT 3210 - Exercise Adherence (3.0 cr)
- ESAT 3300 - Human Biomechanics (4.0 cr)
- ESAT 3400 - Exercise Physiology (4.0 cr)
- ESAT 3410 - Performance Nutrition and Weight Management (4.0 cr)
- ESAT 3420 - Exercise Testing and Prescription (4.0 cr)
- ESAT 3430 - Principles of Strength and Conditioning Programs (4.0 cr)
- ESAT 3440 - Clinical Exercise Physiology (5.0 cr)
- ESAT 4700 - Statistics and Research Methods in Exercise Science (4.0 cr)

## Program Sub-plans

Students are required to complete one of the following sub-plans.

### Exercise and Sport Science

The bachelor of applied science (B.A.Sc.) in exercise science with a concentration in exercise and sport science prepares students for admission to graduate programs in exercise science (biomechanics, exercise physiology, sports psychology), the health professions (including medicine, physician assistant, occupational and physical therapy), and clinically applied professions such as clinical exercise physiologist and cardiac rehabilitation. This area of study is primarily for students who intend to pursue advanced degrees in an exercise science specialization or to seek admission to a professional program in the health sciences.

The required curriculum includes a liberal education background, a core of basic and applied sciences, and courses in the exercise science sub-disciplines, and either a senior project or an internship in a sport, exercise, educational, or public service/workplace setting. This area of study is primarily for students who intend to pursue advanced degrees in an exercise science specialization or to seek admission to a professional program in the health sciences.

### Exercise and Sport Science Core Courses (4 cr)

- ESAT 4710 - Applied and Experimental Exercise Science (4.0 cr)

### Courses From Other Programs (15 cr)

- BIOL 1012 - General Biology II [SUSTAIN] (5.0 cr)
- CHEM 1155 - General Chemistry II (4.0 cr)
- CHEM 1156 - General Chemistry Lab II (1.0 cr)
- PHYS 1002 - Introduction to Physics II (5.0 cr)

### Health and Fitness

The bachelor of applied science (B.A.Sc.) in exercise science, with a concentration in health fitness, prepares students for professional involvement with clients in clinical, commercial, corporate, and service agency fitness and health programs. The curriculum prepares students to demonstrate the knowledge, skills, and abilities outlined by the American College of Sports Medicine (ACSM) for professionals in clinical and health-related programs. Completion of the degree program does not ensure ACSM certification.

### Health and Fitness Core Courses (18 cr)

Students take ESAT 4996 for 6 credits.

- ESAT 4996 - Internship (3.0 - 12.0 cr)
- Electives (12 credits) any UMD 3xxx or higher course



### Special Interest

The bachelor of applied science (B.A.Sc.) in exercise science special area of interest concentration prepares students for admission to unique graduate programs in exercise or related sciences that fall outside those prepared for with health and fitness and exercise sport science concentration curricula. Working in consultation with an exercise science faculty sponsor, the student submits a course plan and request to enroll in this concentration. The plan must include 19 or more credits of 3xxx or 4xxx courses and explain how each fits in the unique curricular goal. After departmental approval, the planned courses will comprise the student's concentration.

### Special Area Courses (19 credits)

19 credits 3xxx or above, department approval required.

### **Duluth Campus**

## **Integrated Elementary and Special Education B.A.Sc.**

Education

### **College of Education and Human Service Professions**

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 135
- Required credits within the major: 131
- This program is 9 terms (4½ years) long.
- This program requires summer terms.
- Degree: Bachelor of Applied Science

Successful completion of the B.A.Sc from the Integrated Elementary and Special Education (IESE) program qualifies students to apply for state licensure to teach K-6 elementary education and K-12 special education in the areas of learning disabilities, emotional behavior disorders, autism spectrum, developmental cognitive delay, and other health impairments within the mild to moderate range. This multi-categorical special education license is called Academic and Behavioral Strategist (ABS). The major also provides a good foundation for programs leading to licensure as an elementary principal or school counselor, employment in public and private schools, as well as correctional settings, human service agencies, hospital-based settings, and private practice.

An effective teacher should possess a broad background in liberal and professional education. This professional program focuses on the structure of the various disciplines: the child as learner, the learning environment, diverse learners, teaching strategies in practicum settings, and student teaching experience in both elementary and special education settings. All students complete a common core of courses in elementary and special education with emphasis in theory and teaching strategies in literacy and language arts, math, social studies, science, classroom and behavior management, assessment, and academic intervention.

Elementary and special education licensure requirements are established by the state of Minnesota and guided by national standards. Those requirements are changed periodically. For this reason, all IESE majors should maintain contact with their adviser as they advance through the program.

### **Program Delivery**

This program is available:

- via classroom (the majority of instruction is face-to-face)

### **Admission Requirements**

Students must complete 48 credits before admission to the program.

A GPA above 2.0 is preferred for the following:

- 2.70 already admitted to the degree-granting college
- 2.70 transferring from another University of Minnesota college
- 2.70 transferring from outside the University

Application for admission to the program may be filed 2nd sem 2nd year or 1st sem 3rd year, depending on the completion of admin requirements. Students entering IESE program are bound by policies in effect at the time of applications; admission is based on criteria established by the Dept of Educ consistent with MN policies as established by the Council for the Accreditation of Educ Prep (CAEP). Require: declaration of major has been filed & accepted; successful completion 60 hours documented work with children in a professional setting; GPA min 2.70 or cumulative (including transfer work) & in major courses completed at the time of application; letter of application; 3 recommendations from professionals who have observed applicant working with children, see Dept of Educ for form to be completed; evidence the applicant has taken the 3 sections of the MN Board Teaching required MTLE Basic Skills Test or passing score on ACT +Writ or SAT; C- or better in all required courses for major.

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

### **Required prerequisites**

#### **Lower Division Requirements (40 cr)**

- [ART 2810](#) - Art in Elementary Education [LE CAT10, FINE ARTS] (3.0 cr)
- [ASL 2001](#) - Beginning American Sign Language I [LE CAT3, LECD CAT03, COMM & LAN] (3.0 cr)
- [CSD 2230](#) - Introduction to Human Communication Disorders [LE CAT8, LECD CAT08, SOC SCI, CDIVERSITY] (3.0 cr)
- [ECH 2025](#) - Educating the Human Brain [SOC SCI] (3.0 cr)
- [EDUC 1000](#) - Human Development (3.0 cr)
- [EDUC 1101](#) - Education in Modern Society [LE CAT7, HUMANITIES] (3.0 cr)

[IESE 1010](#) - Introduction to Inclusive Education (3.0 cr)  
[IESE 2001](#) - Diversity and Education Implications (3.0 cr)  
[MATH 1140](#) - Mathematics for Elementary Education I [LOGIC & QR] (3.0 cr)  
[MATH 1142](#) - Mathematics for Elementary Education II (3.0 cr)  
[UST 1000](#) - UMD Seminar (1.0 - 2.0 cr)  
[WRIT 1120](#) - College Writing [LE CAT1, WRITING] (3.0 cr)

#### **Geography Requirement**

Students are encouraged to take GEOG 1202 or 1414 to fulfill geography and liberal education requirements.

Take 1 or more course(s) totaling 3 or more credit(s) from the following:

- GEOG 1xxx
- GEOG 2xxx

#### **History requirement**

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

- [HIST 1304](#) - US History Part I: 1607-1877 [LE CAT7, HUMANITIES] (4.0 cr)
- [HIST 1305](#) - US History Part II: 1865-Present [LE CAT7, HUMANITIES] (4.0 cr)

## General Requirements

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

## Program Requirements

1. Students are expected to: a) make satisfactory progress each semester, including grades of C- or better in all courses required in the major; b) demonstrate acceptable professional performance in applied learning settings (e.g., laboratory, field experiences, clinical experiences); and c) obtain an approved background check before being placed in clinical, field, intern, or student teaching experiences. Students who do not meet program expectations can be dismissed from the major. Details on these requirements are available from the department office.

#### **Upper Division Requirement (19 cr)**

[EDUC 2000](#) - Technology for Teaching and Learning (3.0 cr)  
[HPER 3300](#) - Health and Physical Education in the Elementary School (3.0 cr)  
[IESE 3331](#) - Children's Literature in the Elementary School (3.0 cr)  
[MU 3600](#) - Music in the Elementary Classroom (3.0 cr)  
[SPED 4433](#) - Foundations in Special Education (4.0 cr)  
[WRIT 3140](#) - Advanced Writing: Human Services (3.0 cr)

#### **Block 1 (18 cr)**

All courses must be taken concurrently.

[IESE 3325](#) - Foundations of Literacy and Language (3.0 cr)  
[IESE 4366](#) - Teaching Elementary Social Studies I (3.0 cr)  
[SPED 4310](#) - Response to Intervention in the General Education Classroom (4.0 cr)  
[SPED 4381](#) - Classroom and Behavior Management (4.0 cr)  
[SPED 4435](#) - Parent and Professional Communication and Collaboration (4.0 cr)

#### **Block 2 (17 cr)**



All courses must be taken concurrently.

[EDUC 4347](#) - Second Language Acquisition & ELL: How Second Languages are Learned & Methods for Teaching (2.0 cr)

[IESE 3355](#) - Critical Thinking Elementary Mathematics Methods I (2.0 cr)

[IESE 4344](#) - Teaching Science and Environmental Education I (3.0 cr)

[IESE 4367](#) - Teaching Elementary Social Studies II (2.0 cr)

[SPED 4204](#) - Assessment in the General and Special Education Classroom (4.0 cr)

[SPED 4452](#) - Academic Interventions for Students with Disabilities (4.0 cr)

**Block 3 (13 cr)**

All courses must be taken concurrently. Application for student teaching must be made by the 4th Friday of the semester before student teaching. Applications are available from the Department of Education website. Incompletes must be cleared before filing application. Students must have grades of C- or better in all required courses in the major to be eligible for student teaching.

[EDUC 3381](#) - Teaching American Indian Students in the Elementary Classroom (3.0 cr)

[IESE 3326](#) - Advanced Literacy & Language: Designing & Implementing a Comprehensive Literacy Program (2.0 cr)

[IESE 3356](#) - Elementary Mathematics Methods II (3.0 cr)

[IESE 4346](#) - Teaching Science & Environmental Education II (2.0 cr)

[SPED 4585](#) - Individual Education Plans: Development and Implementation (3.0 cr)

**Block 4 (12 cr)**

ELED 4600 register for 12 credits.

[ELED 4600](#) - Student Teaching (6.0 - 12.0 cr)

**Block 5 (12 cr)**

All courses must be taken concurrently; SPED 4600 must be taken for 8 credits.

[SPED 4455](#) - Transitional Planning for Adolescents with Disabilities (4.0 cr)

[SPED 4600](#) - Student Teaching (1.0 - 12.0 cr)

## Duluth Campus

# Physical Education B.A.Sc.

*D Applied Human Sciences*

## College of Education and Human Service Professions

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 124 to 135
- Required credits within the major: 106 to 117
- Degree: Bachelor of Applied Science

The bachelor of applied science (B.A.Sc.) in physical education is for students preparing for teacher licensure in physical education (K-12). The major meets Minnesota Board of Teaching licensure requirements and standards of the Council for the Accreditation of Educator Preparation (CAEP) for teaching physical education in grades K-12 in Minnesota. The program is taught using the Learner-Sensitive Educator Model, supporting preferences of reflection, social justice, collaboration, empowerment, and technology.

Students are required to obtain personal liability insurance to protect them while they are working in public school situations. Proof of insurance also is required when enrolled in Physical Education Teacher Education (PETE) 4100, 4125, 4200, 4225, 4250, and student teaching. This usually is obtained most economically by student membership in the Minnesota Education Association. Applications are available in the department office.

The physical education program develops subject matter expertise of prospective teachers through a sequential set of courses. PETE courses are open only to majors, allowing faculty to focus on the specific needs and learning objectives of the physical education major.

The physical education program also instills an appropriate set of professional dispositions (attitudes and behaviors) that are predictors of success in educational settings. Students who fail to exhibit appropriate dispositions may be removed from the program.

## Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

## Admission Requirements

Students must complete 44 credits before admission to the program.

Freshman and transfer students are usually admitted to pre-major status before admission to this major

A GPA above 2.0 is preferred for the following:

- 2.50 already admitted to the degree-granting college
- 2.50 transferring from another University of Minnesota college
- 2.50 transferring from outside the University

Students entering the secondary and K-12 licensure programs are bound by the policies in effect at the time of application; admission is based on criteria established by the Dept of Educ, consistent with MN policies as established by the Council for the Accreditation of Education Preparation (CAEP). Students must 1) complete EDUC 1101; 2) GPA of at least 2.50 cumulative including transfer work & in major courses completed at time of application; 3) take the MTLE Basic Skills Test for licensure or have passing scores on the ACT Plus Writing or SAT Exam; 4) minimum 30 documented hours working with students in grades 5-12; 5) minimum of 1 letter of recommendation 6) receive a C- or better in all required courses for the major. Students must submit a letter of application, resume, letters of recommendation and their APAS report. There are alternatives to the admission procedures to encourage the participation of individuals from underrepresented groups and students as determined by the dept.

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

### Required prerequisites

#### Introductory Course (1 cr)

This course will be waived for transfer students or students who change colleges from a college where it is not required.

Register course for one credit.

[UST 1000](#) - UMD Seminar (1.0 - 2.0 cr)

#### Lower Division (43 - 44 cr)

[EDUC 1101](#) - Education in Modern Society [LE CAT7, HUMANITIES] (3.0 cr)



ESAT 2400 - Applied Exercise Science (3.0 cr)  
HLTH 1100 - Health and Wellness Strategies for Life [LE CAT8, SUSTAIN] (3.0 cr)  
HLTH 1700 - First Responder (3.0 cr)  
PETE 1000 - Introduction and Foundations of Physical Education (4.0 cr)  
PETE 1001 - Teaching Games and Activities (2.0 cr)  
PETE 1002 - Teaching Team Sport Activities (2.0 cr)  
PETE 1003 - Teaching Outdoor Activities in Physical Education (2.0 cr)  
PETE 1004 - Teaching Recreational and Lifetime Activities (2.0 cr)  
PETE 1005 - Teaching Physical Fitness Activities (2.0 cr)  
PETE 1006 - Teaching Aquatic Activities (2.0 cr)  
PETE 1007 - Teaching Dance Activities (2.0 cr)  
PETE 1008 - Teaching Rhythmic Activities (2.0 cr)  
PSY 2021 - Developmental Psychology [LE CAT6, LECD CAT06, SOC SCI, CDIVERSITY] (4.0 cr)  
WRIT 1120 - College Writing [LE CAT1, WRITING] (3.0 cr)  
BIOL 1001 - Biology and Society [LE CAT4, NAT SCI, SUSTAIN] (4.0 cr)  
or BIOL 1011 - General Biology I [LE CAT4, NAT SCI] (5.0 cr)

## General Requirements

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

## Program Requirements

1. Compliance with general regulations governing granting of degrees. Students are required to review their degree status in the CEHSP Advising & Academic Services Office early in their senior year.
2. For degree candidates at least 20 of the last 30 degree credits immediately before graduation must be taken at UMD.

### Block Requirements:

Students must have completed (or be currently enrolled) in all lower division 1xxx PETE courses before applying to the Secondary Teacher Education Program (STEP). Application to the STEP program (due the 6th Friday of the semester) typically occurs in the fall semester of the junior year. Students need to have completed or be currently enrolled in PETE 3100, 3400, and 3500. Applications are available from the Department of Education website.

### Upper Division (23 cr)

EDUC 3412 (register for 4 cr)  
EDUC 3412 - The Computer in Education (4.0 cr)  
ESAT 3200 - Motor Learning and Development (5.0 cr)  
HLTH 3202 - Drug Education (2.0 cr)  
PETE 3100 - Curricular Approaches in Physical Education (3.0 cr)  
PETE 3400 - Adapted Physical Education (3.0 cr)  
PETE 3500 - Student Assessment in Physical Education (3.0 cr)  
WRIT 3140 - Advanced Writing: Human Services (3.0 cr)

### Block 1(13 cr)

All courses must be taken concurrently.

- EDSE 4100 - Teaching in a Diverse Society (3.0 cr)
- EDSE 4501 - Adolescent/Adult Development and Learning Theory (3.0 cr)
- PETE 4250 - Supervised Teaching College I: Planning for Instruction (1.0 cr)
- PETE 4100 - Elementary Physical Education Methods (4.0 cr)  
with PETE 4125 - Apprenticeship: Elementary (2.0 cr)

### Block 2 (12 cr)

All courses must be taken concurrently. Students must apply for student teaching while enrolled in Block 2 courses. Applications must be submitted by the 4th Friday of the semester. Applications are available from Department of Education website. Block 2 is also the time to take the MTLE content area and pedagogy test. These tests are required for licensure in Minnesota.

- EDSE 4214 - Teaching Content-Area Reading (2.0 cr)
- EDUC 4381 - Teaching Indigenous Students (3.0 cr)
- PETE 4255 - Supervised Teaching College II: Implementation and Class Management (1.0 cr)
- PETE 4200 - Secondary Physical Education Methods (4.0 cr)  
with PETE 4225 - Apprenticeship: Secondary (2.0 cr)

### Block 3 (14 cr)

All courses must be taken concurrently. Registration for student teaching in the senior year requires grades of C- or better in all courses (except PETE 4600) in teaching major(s) and minor; graded completion of all education block courses and all PETE courses. Students must have personal liability insurance while they are working field placement settings. EDSE 4600 (register for 6 cr) ELED 4650 (register for 6 cr)

- EDSE 4600 - Student Teaching (3.0 - 12.0 cr)
- EDUC 4500 - Professional Issues and Ethics (1.0 cr)
- ELED 4650 - Student Teaching in Individual Subjects: K-8 (1.0 - 6.0 cr)
- PETE 4600 - Seminar in Physical Education (1.0 cr)

## Program Sub-plans

A sub-plan is not required for this program.

### Outdoor Education

The concentration in outdoor education is a series of courses that, in addition to the required courses for the physical education major, provide coursework to enable the student to incorporate outdoor educational skills into its curriculum. This concentration better prepares the physical education teacher for professional expectations.

Outdoor education courses (11 cr)

### Required Courses (7 cr)

- ENED 4163 - Outdoor Education Methods (3.0 cr)
- PETE 3505 - Teaching Outdoor Skills I (2.0 cr)
- PETE 3507 - Teaching Outdoor Skills II (2.0 cr)

### Electives (4 cr)

Take 4 or more credit(s) from the following:

- ENED 3309 - Outdoor Leadership (1.0 cr)
- ENED 3310 - Outdoor Leadership Field Experience (2.0 cr)
- ENED 4410 - Ropes Course Management (3.0 cr)
- PE 1500 - Cross-Country Skiing [PE] (1.0 cr)
- PE 1502 - Alpine Skiing [PE] (1.0 cr)
- PE 1507 - Introduction to River Kayaking [PE] (1.0 cr)
- PE 1508 - Flatwater Canoeing [PE] (1.0 cr)
- PE 1510 - Whitewater Kayaking [PE] (2.0 cr)
- PE 1511 - Sea Kayaking (1.0 cr)
- PE 1512 - Fishing Skills [PE] (1.0 cr)
- PE 1530 - Rock Climbing [PE] (1.0 cr)
- PE 1531 - Intermediate Rock Climbing (1.0 cr)
- PETE 3501 - Teaching Cross-Country Skiing (1.0 cr)
- ENED 1201 - Outdoor Skills I [PE] (2.0 cr)
- ENED 1203 - Outdoor Skills I (2.0 cr)



## Duluth Campus

# Psychology B.A.Sc.

Psychology

## College of Education and Human Service Professions

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 120
- Required credits within the major: 56
- The online major is designed to extend UMD's outreach by targeting students who would have a difficult time re-locating in order to earn a bachelor's degree. Likewise, there is a potential collaboration with the UM Crookston campus to provide an opportunity for students currently enrolled at that campus to earn a psychology degree.
- Degree: Bachelor of Applied Science

The bachelor of applied science (B.A.Sc.) in psychology provides students with a firm grounding in the methods, history, and content areas of the discipline. Students are prepared for graduate study leading to advanced degrees in psychology or for paraprofessional positions requiring some application of research or human service delivery skills. The core curriculum covers the research methods used in the scientific study of behavior, and surveys theories, findings, and historical applications in a variety of psychology subfields. Students apply their methodology training to a topic of their choice in a faculty-supervised independent research project during the design and methodology courses of the core curriculum. In addition, the core curriculum requires some exposure to the main areas of the discipline. Students also have the opportunity to focus their study toward either graduate training or paraprofessional employment through their selection of elective courses (recommended as "tracks"), independent studies, or internships. Students should consult with faculty advisers to select appropriate elective courses to meet their career goals.

Students may qualify for department, college or University awards and scholarships. Please visit [www.d.umn.edu/cehsp/scholarships/index.html](http://www.d.umn.edu/cehsp/scholarships/index.html). Students are encouraged to present their research findings at the Twin Ports Undergraduate Psychology Conference or the National Council for Undergraduate Research.

Distance Education - Many psychology courses are available online. An online major is available to students who have completed an associate degree or Minnesota Transfer Curriculum (MTC) or have verification of registration from transfer institution where completing remaining credits for AA degree or MTC. The requirements for the online major are identical to those of the existing major but are structured to facilitate the delivery in the online medium. The online psychology major admits students every fall semester. Please call the Department of Psychology or visit the website at [www.d.umn.edu/psy/](http://www.d.umn.edu/psy/) for more information.

Honors Requirements: Senior students who have a minimum GPA of 3.80 within the psychology major and also have an overall GPA minimum of 3.00 may earn department psychology honors by doing one of the following: 1) complete an honors research project (PSY 3986) under the supervision of a psychology faculty member; 2) earn a grade of B or higher in a 5XXX-level psychology course; or 3) apply for and conduct a UROP (Undergraduate Research Opportunity Project) under the supervision of a psychology faculty member. Students must apply to the psychology department to be considered for departmental honors by the UMD deadline to apply for graduation in their final term. Students eligible for honors are urged to consult with their advisers or a psychology department faculty member on how they wish to pursue departmental honors before the end of their junior year.

## Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)
- completely online (all program coursework can be completed online)

## Admission Requirements

Students must complete 24 credits before admission to the program.

Freshmen students are usually admitted to pre-major status before admission to this major

A GPA above 2.0 is preferred for the following:

- 2.50 already admitted to the degree-granting college
- 2.50 transferring from another University of Minnesota college
- 2.50 transferring from outside the University

Students are admitted to UMD as pre--psychology majors. Pre--psychology majors who have an overall GPA of 2.50, a minimum of 24 completed credits, and have taken PSY 1003 -General Psychology or equivalent may declare psychology as a major by contacting the Psychology Department. Students with other declared majors who meet these requirements may declare psychology as a major by contacting the CEHSP Advising and Academic Services Office. Progress toward completion of degree requirements is continuously

tracked by the UMD Registrar's APAS system.

To apply for admission to the online major, graduates from partner community colleges must have a 2.50 GPA. It is best if students have already completed a course in general psychology. Admissions are for fall only.

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

### Required prerequisites

#### Introductory Course (1 cr)

This course will be waived for transfer students or students who change colleges from a college where it is not required.

Register course for 1 credit.

[UST 1000](#) - UMD Seminar (1.0 - 2.0 cr)

## General Requirements

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

## Program Requirements

1. 20 credits of PSY 3xxx or higher applied to the B.A.Sc. must be taken in residence at UMD.
2. Degree candidates must complete at least 30 degree credits at UMD. At least 20 of the last 30 degree credits immediately before graduation must be taken at UMD.
3. A minor program or 18 additional 3xxx credits or higher outside the major.
4. Compliance with general regulations governing granting of degrees. Students are required to review their degree status in the CEHSP Student Advising & Academic Services Office early in their senior year.
5. Students are strongly encouraged to take advanced writing before taking PSY 3021.
6. Students are encouraged to select at least 1 personal experience that fosters engagement with psychology: active membership in Psi Chi & Psychology Club; peer advisors; becoming a research and/or teaching assistant in cooperation with a psychology faculty member; applying for a UROP or conducting research or a project through guided independent study PSY 3994, 3986, 3989. Students can have a supervised internship experience in an organization PSY 3011, prereq 3010.
7. To qualify for admission to the online program, students who have completed an AA degree or MN Transfer Curriculum or have verification of registration from transfer institution where completing remaining credits. Students are admitted every fall semester.

Study abroad: psychology students may elect to study abroad using the many opportunities UMD offers. Information is available at [www.d.umn.edu/ieo](http://www.d.umn.edu/ieo).

### Core Requirements (38 - 41 cr)

#### Core A

Note: PSY 3020, 3021, 3022 must be completed in sequence. PSY 2003, 3020 are prereqs for PSY 3021.

PSY 1003 - General Psychology [LE CAT6, SOC SCI] (4.0 cr)

PSY 2003 - Psychology: Discipline and Profession (1.0 cr)

PSY 3020 - Statistical Methods (4.0 cr)

PSY 3021 - Experimental Design and Methodology (4.0 cr)

PSY 3022 - Applied Methods and Measurement (4.0 cr)

PSY 3081 - History and Systems of Psychology (3.0 cr)

BIOL 1001 - Biology and Society [LE CAT4, NAT SCI, SUSTAIN] (4.0 cr)

or BIOL 1011 - General Biology I [LE CAT4, NAT SCI] (5.0 cr)

#### Core B

Take 2 or more course(s) from the following:

•PSY 2021 - Developmental Psychology [LE CAT6, LECD CAT06, SOC SCI, CDIVERSITY] (4.0 cr)

•PSY 3111 - Theories of Personality (3.0 cr)

•PSY 3121 - Abnormal Psychology (4.0 cr)

•PSY 3201 - Social Psychology (3.0 cr)

•PSY 3520 - Introduction to Industrial/Organizational Psychology (4.0 cr)

#### Core C

Take 2 or more course(s) from the following:

•PSY 3061 - Physiological Psychology (4.0 cr)

•PSY 3611 - Learning and Behavior (4.0 cr)

•PSY 3613 - Applied Behavior Analysis and Behavior Change (4.0 cr)

•PSY 3621 - Cognition (4.0 cr)

•PSY 3697 - Sensation and Perception (4.0 cr)

#### Electives (11 - 14 cr)

Combined with Core Requirements, students must take PSY 2xxx or higher to total 52 credits. PSY 2020 cannot be used towards this requirement. Recommended electives for areas of interest from the following:

Take 11 - 14 credit(s) including 0 or more sub-requirements(s) from the following:

##### Clinical/Counseling

Take 0 - 9 credit(s) from the following:

•PSY 2021 - Developmental Psychology [LE CAT6, LECD CAT06, SOC SCI, CDIVERSITY] (4.0 cr)

•PSY 3111 - Theories of Personality (3.0 cr)

•PSY 3121 - Abnormal Psychology (4.0 cr)

•PSY 3122 - Child and Adolescent Abnormal Psychology (3.0 cr)

•PSY 3201 - Social Psychology (3.0 cr)

•PSY 3524 - Basic Helping Skills (4.0 cr)

•PSY 3540 - Psychology of Food Abuse (3.0 cr)

•PSY 3613 - Applied Behavior Analysis and Behavior Change (4.0 cr)

•PSY 4121 - Foundations of Clinical Psychology (3.0 cr)

•PSY 4500 - Health Psychology (3.0 cr)

##### Developmental

Take 0 - 6 credit(s) from the following:

•PSY 2021 - Developmental Psychology [LE CAT6, LECD CAT06, SOC SCI, CDIVERSITY] (4.0 cr)

•PSY 2023 - Marriages and Families Worldwide [LE CAT8, LEIP CAT08, GLOBAL PER] (4.0 cr)

•PSY 2223 - Gender in Society [LE CAT8, LECD CAT08, CDIVERSITY] (4.0 cr)

•PSY 3122 - Child and Adolescent Abnormal Psychology (3.0 cr)

•PSY 3215 - Topics in Human Sexuality (3.0 cr)

•PSY 3371 - Child and Adolescent Psychology (3.0 cr)

•PSY 3381 - Adult Development and Aging (3.0 cr)

•PSY 3661 - Psychology of Language (3.0 cr)

##### Experimental

Take 0 - 6 credit(s) from the following:

•PSY 3061 - Physiological Psychology (4.0 cr)

•PSY 3231 - Psychology of Drug Use (3.0 cr)

•PSY 3613 - Applied Behavior Analysis and Behavior Change (4.0 cr)

•PSY 3621 - Cognition (4.0 cr)

•PSY 3661 - Psychology of Language (3.0 cr)

•PSY 3697 - Sensation and Perception (4.0 cr)

•PSY 5130 - Evolutionary Psychology (3.0 cr)

•PSY 5155 - Forensic Psychology (3.0 cr)

##### Human Services

Take 0 - 10 credit(s) from the following:

•PSY 2023 - Marriages and Families Worldwide [LE CAT8, LEIP CAT08, GLOBAL PER] (4.0 cr)

•PSY 3010 - Internship Preparation (2.0 cr)

•PSY 3011 - Internship in Psychology (3.0 cr)



- PSY 3211 - Group Dynamics (3.0 cr)
- PSY 3524 - Basic Helping Skills (4.0 cr)
- PSY 3601 - Psychology of Personal Development (3.0 cr)

•**Industrial/Organizational**

Take 0 - 6 credit(s) from the following:

- PSY 3010 - Internship Preparation (2.0 cr)
- PSY 3011 - Internship in Psychology (3.0 cr)
- PSY 3520 - Introduction to Industrial/Organizational Psychology (4.0 cr)
- PSY 3525 - Behavior Analysis in the Workplace (3.0 cr)
- PSY 3701 - Personnel Psychology (3.0 cr)
- PSY 3707 - Organizational Psychology (3.0 cr)

**Advanced Writing (3 cr).**

Students are strongly encouraged to take advanced writing before taking PSY 3021.

[WRIT 3140](#) - Advanced Writing: Human Services (3.0 cr)

or [WRIT 3160](#) - Advanced Writing: Social Sciences (3.0 cr)

## Program Sub-plans

A sub-plan is not required for this program.

### Online Psychology Major

B.A.Sc. psychology major (only) in an online format. The remaining credits can be taken at another institution which allows for great flexibility.

1. An online major is available to students who have completed an associate degree or Minnesota Transfer Curriculum (MTC) or have verification of registration from transfer institution where completing remaining credits for AA degree or MTC and assumes 59 credits completed before starting the online major.
2. The requirements for the online major are identical to those of the existing major but are structured to facilitate the delivery in the online medium.
3. Students are admitted every fall semester. Please call the Department of Psychology or visit the website at [www.d.umn.edu/psy/](http://www.d.umn.edu/psy/) for more information.
4. The research methods courses are considered to be the capstone experience for the program. The research methods courses require students to design and conduct a study.

## Duluth Campus

# Psychology Minor

Psychology

## College of Education and Human Service Professions

- Program Type: Undergraduate minor related to major
- Requirements for this program are current for Fall 2016
- Required credits in this minor: 26

The undergraduate minor in psychology provides students with a basic survey of psychological theories, content areas, and methodology.

## Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

## Admission Requirements

A GPA above 2.0 is preferred for the following:

- 2.50 already admitted to the degree-granting college
- 2.50 transferring from another University of Minnesota college
- 2.50 transferring from outside the University

Students with a cumulative GPA of 2.50 may declare a psychology minor at any time.

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

## Minor Requirements

Exit requirement: Minimum 2.00 (CEHSP requirement)

### Psychology Minor Courses (7 - 8 cr)

- PSY 1003 - General Psychology [LE CAT6, SOC SCI] (4.0 cr)
- CSD 4000 - Introductory Statistics for the Behavioral Sciences (3.0 cr)
  - or ECON 2030 - Applied Statistics for Business and Economics [LOGIC & QR] (3.0 cr)
  - or ESAT 4700 - Statistics and Research Methods in Exercise Science (4.0 cr)
  - or PSY 2020 - Introduction to Statistics and Research Methods (3.0 cr)
  - or PSY 3020 - Statistical Methods (4.0 cr)
  - or SOC 2155 - Introduction to Research Methods and Analysis (4.0 cr)
  - or STAT 2411 - Statistical Methods [LE CAT2, LOGIC & QR] (3.0 cr)
  - or Other comparable courses as approved by department.

### Group I (3-4 cr)

Choose one course:

- PSY 2021 - Developmental Psychology [LE CAT6, LECD CAT06, SOC SCI, CDIVERSITY] (4.0 cr)
- or PSY 3081 - History and Systems of Psychology (3.0 cr)
- or PSY 3111 - Theories of Personality (3.0 cr)
- or PSY 3121 - Abnormal Psychology (4.0 cr)
- or PSY 3201 - Social Psychology (3.0 cr)

### Group II (4 cr)

Choose one course:

- PSY 3061 - Physiological Psychology (4.0 cr)
- or PSY 3611 - Learning and Behavior (4.0 cr)
- or PSY 3613 - Applied Behavior Analysis and Behavior Change (4.0 cr)
- or PSY 3621 - Cognition (4.0 cr)
- or PSY 3697 - Sensation and Perception (4.0 cr)

### Psychology Elective Courses (11-12 cr)

PSY courses 2xxx or higher so total equals 26 credits  
PSY 2xxx



PSY 3xxx  
PSY 4xxx

### **Duluth Campus**

## **Public Health Education and Promotion B.A.Sc.**

*D Applied Human Sciences*

### **College of Education and Human Service Professions**

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 120 to 123
- Required credits within the major: 93 to 110
- Degree: Bachelor of Applied Science

The bachelor of applied science (B.A.Sc.) in public health education and promotion prepares graduates to practice in sites such as schools, voluntary health agencies, public health departments, hospitals, corporate work sites, and businesses. Upper division students select an area of concentration in either community health education or school health education. All health educators, regardless of work site, must possess a number of general competencies. The curriculum prepares students to assess, plan, implement, deliver, administer, and evaluate health education programs that promote health and prevent disease.

### **Program Delivery**

This program is available:

- via classroom (the majority of instruction is face-to-face)

### **Admission Requirements**

Students must complete 30 credits before admission to the program.

Freshman and transfer students are usually admitted to pre-major status before admission to this major

A GPA above 2.0 is preferred for the following:

- 2.50 already admitted to the degree-granting college
- 2.50 transferring from another University of Minnesota college
- 2.50 transferring from outside the University

Students are admitted to the program as pre-majors and must select a concentration. Community concentration students are admitted to upper division after completion of 30 credits, including HLTH 1100. School health concentration students must apply to the Secondary Teacher Education Program (STEP) after completing 45 credits. Health education advisers assist students in course selection and application completion.

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

#### **Required prerequisites**

##### **Introductory Course (1 cr)**

This course will be waived for transfer students or students who change colleges from a college where it is not required.

Register course for one credit.

[UST 1000](#) - UMD Seminar (1.0 - 2.0 cr)

### **General Requirements**

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this

- requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
  7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
  8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

## Program Requirements

1. Selection of either Community Health or School Health concentration/subplan.
2. Completion of all courses specific for the major, including the emphasis, with a minimum 2.00 GPA (including transfer work). Students with school health education concentration must make no grade lower than C- in all courses required in the major.
3. Compliance with general regulations governing granting of degrees. Students are required to review their degree status in the CEHSP Advising & Academic Services Office early in their senior year.
4. Students majoring in public health education and promotion are expected to maintain a 2.00 GPA overall and in the major. They must demonstrate acceptable professional performance in their courses and field experience.
5. Students are expected to: a) make satisfactory academic progress each semester; b) demonstrate acceptable professional performance in applied learning settings (e.g. laboratory, field experience, clinical experiences); and c) obtain an approved background check before being placed in clinical, field, intern, or student teaching experience.

## Program Sub-plans

Students are required to complete one of the following sub-plans.

### Community Health

This concentration addresses the seven responsibilities for health education specialist (NCHEC 2010): assess needs, assets/capacity for health education; plan health education; implement health education; conduct evaluation and research related to health education; administer and manage health education; serve as a health education resource person; communicate and advocate for health and health education; students completing this concentration are prepared to take the national Certified Health Education Specialist exam. Exit Standards: Community Health concentration students must maintain 2.0 or better GPA and pass all required courses for the major. The internship experience introduces undergraduate students to the people and situations they may encounter as a beginning health education professional; students apply classroom theories and techniques and are given responsibilities that help them assess their individual strengths and weaknesses in order to ascertain the most appropriate and desirable entry-level position(s) and permits the prospective health education specialist the opportunity to associate with experienced professionals. The resulting dialogue should enable the future health education specialists to study firsthand the needs and trends of the field. The internship generally is completed during the senior year after completion of most, if not all, required classwork. The internship may be taken full or part-time over one or more semesters for 9 credits or more.

Students who declare this concentration will be considered pre-majors until they have completed 30 credits, including HLTH 1100 with a 2.5 or better cumulative GPA (including transfer work). When students have met this requirement, they must request admission to upper division/degree candidacy.

### Required Lower Division Courses (19 - 20 cr)

- HLTH 1104 completion of 3 credits required.
- HLTH 1100 - Health and Wellness Strategies for Life [LE CAT8, SUSTAIN] (3.0 cr)
  - HLTH 1104 - Health Science Terminology (1.0 - 3.0 cr)
  - HLTH 1470 - Human Nutrition [LE CAT5, NAT SCI] (3.0 cr)
  - HLTH 1700 - First Responder (3.0 cr)
  - HLTH 2030 - Applied Human Anatomy (4.0 cr)
  - HLTH 2040 - Human Physiology (4.0 cr)
- or PHAR 3601 - Basic Human Physiology for Health Professions (3.0 cr) (Summer Only)

### Required Courses From Other Programs (20 - 24 cr)

#### Biology

- BIOL 1001 - Biology and Society [LE CAT4, NAT SCI, SUSTAIN] (4.0 cr)
- or BIOL 1011 - General Biology I [LE CAT4, NAT SCI] (5.0 cr)

#### Chemistry

CHEM 1104 is optional.

CHEM 1103 - Aspects of Chemistry [LE CAT5, NAT SCI, SUSTAIN] (3.0 cr)  
 or CHEM 1113 - Introduction to General, Organic, and Biological Chemistry I [LE CAT4, NAT SCI] (5.0 cr)  
 or CHEM 1153 - General Chemistry I [LE CAT5, NAT SCI] (4.0 cr)  
 CHEM 1154 - General Chemistry Lab I [LE CAT4, NAT SCI] (1.0 cr)

#### Communication

COMM 1000 - Human Communication Theory [LE CAT3, SOC SCI] (3.0 cr)  
 or COMM 1112 - Public Speaking [LE CAT3, COMM & LAN] (3.0 cr)  
 or COMM 1222 - Interpersonal Communication [LE CAT3, LECD CAT03, COMM & LAN] (3.0 cr)

#### Cultural Diversity

Take 3 or more credit(s) from the following:

- EDUC 1100 - Human Diversity [LE CAT8, LECD CAT08, CDIVERSITY] (3.0 cr)
- PSY 2223 - Gender in Society [LE CAT8, LECD CAT08, CDIVERSITY] (4.0 cr)
- SOC 1101 - Introduction to Sociology [LE CAT6, LECD CAT06, SOC SCI, CDIVERSITY] (4.0 cr)
- SOC 1201 - Sociology of the Family [LE CAT8, LECD CAT08, SOC SCI, CDIVERSITY] (3.0 cr)
- SPED 1357 - Individuals with Disabilities in Society [LE CAT8, LECD CAT08, CDIVERSITY] (3.0 cr)
- SW 1619 - Race, Class, and Gender in the United States [LE CAT8, LECD CAT08, SOC SCI, CDIVERSITY] (3.0 cr)
- WS 1000 - Introduction to Women's and Gender Studies [LE CAT7, LECD CAT07, CULT DIV, SOC SCI, CDIVERSITY] (3.0 cr)
- WS 2101 - Women, Race, and Class [LE CAT8, LECD CAT08, SOC SCI, CDIVERSITY] (3.0 cr)

#### Psychology

PSY 1003 - General Psychology [LE CAT6, SOC SCI] (4.0 cr)  
 PSY 2021 - Developmental Psychology [LE CAT6, LECD CAT06, SOC SCI, CDIVERSITY] (4.0 cr)

#### Writing

WRIT 31xx Adv Writing (3.0 cr)

#### Upper Division Major Courses (20 - 22 cr)

HLTH 3202 - Drug Education (2.0 cr)  
 HLTH 3301 - Foundations of Health Education and Promotion (3.0 cr)  
 HLTH 3101 - Community Health (3.0 cr)  
 or HLTH 4100 - Historical Perspectives of Community Health Through Culture & Art in Italy [GLOBAL PER] (3.0 cr)  
 or HLTH 5100 - Historical Perspectives of Community Health Through Culture & Art in Italy (3.0 cr)  
 HLTH 3115 - Consumer Health Education (3.0 cr)  
 or HLTH 3118 - Women's Health Issues (3.0 cr)  
 HPER 3000 - Organization and Administration of Health, Physical Education, and Recreation (3.0 cr)  
 or PSY 3520 - Introduction to Industrial/Organizational Psychology (4.0 cr)  
 or PSY 3701 - Personnel Psychology (3.0 cr)  
 or PSY 3707 - Organizational Psychology (3.0 cr)  
 HPER 3200 - Research and Evaluation in Health Science (3.0 cr)  
 or PSY 3020 - Statistical Methods (4.0 cr)  
 HLTH 3117 - Principles of Sex Education (3.0 cr)  
 or PSY 3215 - Topics in Human Sexuality (3.0 cr)

#### Community Health Concentration Courses (33 cr)

HLTH 4996 completion of 9 credits required.  
 HLTH 3300 - Technology, Design and Communication Applications in Health Education and Promotion (4.0 cr)  
 HLTH 3303 - Health Education and Promotion Program (3.0 cr)  
 HLTH 3305 - Community Health Methods and Strategies (4.0 cr)  
 HLTH 3500 - Environmental Health (3.0 cr)  
 HLTH 4000 - The Health Education Specialist: Skills and Application (4.0 cr)  
 HLTH 4996 - Internship in Health Education (1.0 - 15.0 cr)

A minor or 6 credits of approved electives. Approved electives include any course 3000 or higher from Health Education, HPER, Coaching, Communication, Exercise Science, Psychology, Recreation/Environmental Education, Sociology, Women's Studies. The students adviser may approve other courses.

#### School Health Education

Students entering the secondary and K-12 licensure programs are bound by the policies in effect at the time of application; admission is based on criteria established by the Dept. of Education, consistent with MN policies as established by the Council for the Accreditation of Education Preparation (CAEP). Students must 1) complete EDUC 1101; 2) GPA of at least 2.50 cumulative including transfer work & in major courses completed at time of application; 3) take the MTLE Basic Skills Test for licensure or have passing scores on the ACT Plus Writing or SAT Exam; 4) minimum 30 documented hours working with students in grades 5-12; 5) minimum of 1 letter of recommendation 6) receive a C- or better in all required courses for the major. Students must submit a letter of application, resume, letters of recommendation and their APAS report. There are alternatives to the admission procedures to encourage the participation of individuals from underrepresented groups and students as determined by the dept.

1. Personal Liability Insurance: All student teachers are required to have professional liability insurance. Application forms are available in the Office of Field Experiences, Department of Education, 150 EduE.
2. Exit Standards: Candidate proficiency is assessed throughout the teacher preparation courses by University faculty, University

supervisors, and the cooperating teachers in all field experiences. The field experience assessment forms include knowledge, skills, and dispositions that are aligned to institutional, state, and national standards for all field experiences.

3. Candidates must complete a semester of full-time student teaching in a public school setting at the middle or secondary level. Double majors (e.g., physical education, health education) are required to student teach in both content areas. The final standards-based portfolio is due at the end of student teaching. Candidates must pass all required licensure tests before they can be recommended for teacher licensure in Minnesota.

#### Required Lower Division Courses (20 cr)

HLTH 1104 completion of 3 credits required.

HLTH 1100 - Health and Wellness Strategies for Life [LE CAT8, SUSTAIN] (3.0 cr)

HLTH 1104 - Health Science Terminology (1.0 - 3.0 cr)

HLTH 1470 - Human Nutrition [LE CAT5, NAT SCI] (3.0 cr)

HLTH 1700 - First Responder (3.0 cr)

HLTH 2030 - Applied Human Anatomy (4.0 cr)

HLTH 2040 - Human Physiology (4.0 cr)

#### Required Courses From Other Programs (20 - 24 cr)

##### Biology

BIOL 1001 - Biology and Society [LE CAT4, NAT SCI, SUSTAIN] (4.0 cr)

or BIOL 1011 - General Biology I [LE CAT4, NAT SCI] (5.0 cr)

##### Chemistry

CHEM 1104 is optional

CHEM 1103 - Aspects of Chemistry [LE CAT5, NAT SCI, SUSTAIN] (3.0 cr)

or CHEM 1113 - Introduction to General, Organic, and Biological Chemistry I [LE CAT4, NAT SCI] (5.0 cr)

or CHEM 1153 - General Chemistry I [LE CAT5, NAT SCI] (4.0 cr)

CHEM 1154 - General Chemistry Lab I [LE CAT4, NAT SCI] (1.0 cr)

##### Communication

COMM 1000 - Human Communication Theory [LE CAT3, SOC SCI] (3.0 cr)

or COMM 1112 - Public Speaking [LE CAT3, COMM & LAN] (3.0 cr)

or COMM 1222 - Interpersonal Communication [LE CAT3, LECD CAT03, COMM & LAN] (3.0 cr)

##### Cultural Diversity

Take 3 or more credit(s) from the following:

• EDUC 1100 - Human Diversity [LE CAT8, LECD CAT08, CDIVERSITY] (3.0 cr)

• PSY 2223 - Gender in Society [LE CAT8, LECD CAT08, CDIVERSITY] (4.0 cr)

• SOC 1101 - Introduction to Sociology [LE CAT6, LECD CAT06, SOC SCI, CDIVERSITY] (4.0 cr)

• SOC 1201 - Sociology of the Family [LE CAT8, LECD CAT08, SOC SCI, CDIVERSITY] (3.0 cr)

• SPED 1357 - Individuals with Disabilities in Society [LE CAT8, LECD CAT08, CDIVERSITY] (3.0 cr)

• SW 1619 - Race, Class, and Gender in the United States [LE CAT8, LECD CAT08, SOC SCI, CDIVERSITY] (3.0 cr)

• WS 1000 - Introduction to Women's and Gender Studies [LE CAT7, LECD CAT07, CULT DIV, SOC SCI, CDIVERSITY] (3.0 cr)

• WS 2101 - Women, Race, and Class [LE CAT8, LECD CAT08, SOC SCI, CDIVERSITY] (3.0 cr)

##### Psychology

PSY 1003 - General Psychology [LE CAT6, SOC SCI] (4.0 cr)

PSY 2021 - Developmental Psychology [LE CAT6, LECD CAT06, SOC SCI, CDIVERSITY] (4.0 cr)

##### Writing

WRIT 31xx Adv Writing (3.0 cr)

#### Upper Division Major Courses (20 cr)

Any other courses not aligned with standard need an APAS exception on file for School Health Concentration.

HLTH 3101 - Community Health (3.0 cr)

HLTH 3117 - Principles of Sex Education (3.0 cr)

HLTH 3202 - Drug Education (2.0 cr)

HLTH 3301 - Foundations of Health Education and Promotion (3.0 cr)

HPER 3000 - Organization and Administration of Health, Physical Education, and Recreation (3.0 cr)

HPER 3200 - Research and Evaluation in Health Science (3.0 cr)

HLTH 3115 - Consumer Health Education (3.0 cr)

or HLTH 3118 - Women's Health Issues (3.0 cr)

#### School Health Concentration (45 cr)

EDUC 1101 - Education in Modern Society [LE CAT7, HUMANITIES] (3.0 cr)

EDUC 3412 - The Computer in Education (4.0 cr)

HLTH 3302 - School Health Education Methods and Materials (3.0 cr)

#### Block I (12 cr)

All courses must be taken concurrently. Application for admission to the blocks must be submitted by the 6th Friday of the semester.

Applications are available from the Department of Education website.

EDSE 4100 - Teaching in a Diverse Society (3.0 cr)

EDSE 4204 - Designing Learning Environments and Lessons (3.0 cr)

EDSE 4501 - Adolescent/Adult Development and Learning Theory (3.0 cr)



[SPED 3415](#) - Special Education in the Secondary School (3.0 cr)

**Block II (10 cr)**

All courses must be taken concurrently. Application for student teaching must be made by the 4th Friday of the semester before student teaching. Applications are available from the Department of Education website.

[EDUC 4381](#) - Teaching Indigenous Students (3.0 cr)

[EDSE 3206](#) - Apprenticeship: Secondary School (2.0 cr)

[EDSE 4214](#) - Teaching Content-Area Reading (2.0 cr)

[EDSE 4525](#) - Assessment for Secondary Education (3.0 cr)

**Block III (13 cr)**

All courses must be taken concurrently. Registration for student teaching in the senior year requires grades of C- or better in all courses in teaching major(s) and minor; graded completion of all education block courses; completion of at least 85% of teaching major courses. Students must have personal liability insurance while they are working in field placement settings. EDSE 4600 (register for 12 cr).

[EDSE 4600](#) - Student Teaching (3.0 - 12.0 cr)

[EDUC 4500](#) - Professional Issues and Ethics (1.0 cr)



### **Duluth Campus**

## **Public Health Education and Promotion Minor**

*D Applied Human Sciences*

### **College of Education and Human Service Professions**

- Program Type: Undergraduate minor related to major
- Requirements for this program are current for Fall 2016
- Required credits in this minor: 27 to 28

Students with other majors who have a strong interest in public health education and promotion may choose to complete this minor. The coursework covers health content and public health education/promotion program planning that would be applicable to various employment settings.

### **Program Delivery**

This program is available:

- via classroom (the majority of instruction is face-to-face)

### **Admission Requirements**

A GPA above 2.0 is preferred for the following:

- 2.50 already admitted to the degree-granting college
- 2.50 transferring from another University of Minnesota college
- 2.50 transferring from outside the University

Admission into minor requires a minimum 2.5 cumulative GPA (including transfer work) and completion of lower division course work. Students already enrolled as majors in CEHSP will be given priority for admission to the public health education and promotion minor. Recommended to declare minor by October 1 for spring semester and March 1 for fall semester. Contact the HPER department for more details.

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

### **Minor Requirements**

#### **Lower Division (10 cr)**

- [HLTH 1100](#) - Health and Wellness Strategies for Life [LE CAT8, SUSTAIN] (3.0 cr)
- [HLTH 1470](#) - Human Nutrition [LE CAT5, NAT SCI] (3.0 cr)
- [PSY 2021](#) - Developmental Psychology [LE CAT6, LECD CAT06, SOC SCI, CDIVERSITY] (4.0 cr)

#### **Upper Division (17-18 cr)**

Apply for admission to the upper division after completing the lower division courses, earning 60 credits, and having 2.50 GPA.

- [HLTH 3301](#) - Foundations of Health Education and Promotion (3.0 cr)
- [HLTH 3303](#) - Health Education and Promotion Program (3.0 cr)
- [HLTH 3307](#) - Conducting and Managing Worksite Health Promotion Programs (3.0 cr)
- [HLTH 3400](#) - Facilitating Healthy Lifestyle Change (3.0 cr)

Approved electives include any courses 3000 or higher from Health Education, HPER, Coaching, Communication, Exercise Science, Psychology, Recreation/Environmental Education; HLTH 4100 or 5100 are also accepted. Other 3xxx or higher courses with permission from program coordinator.

### **Duluth Campus**

## **Social Work B.S.W.**

*Social Work*

### **College of Education and Human Service Professions**

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 120
- Required credits within the major: 78 to 79

The bachelor of social work (BSW) program prepares students for generalist practice in a variety of human service settings. Graduates undertake a variety of professional social work roles ranging from counselor and case manager to community organizer and advocate. The curriculum has a special focus on services to American Indians and their communities.

### **Program Delivery**

This program is available:

- partially online (between 50% to 80% of instruction is online)

### **Admission Requirements**

Students must complete 30 credits before admission to the program.

A GPA above 2.0 is preferred for the following:

- 2.50 already admitted to the degree-granting college
- 2.50 transferring from another University of Minnesota college
- 2.50 transferring from outside the University

Evidence of engagement in community service or volunteer work.

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

#### **Required prerequisites**

##### **Admission Requirements (16 cr)**

Take UST 1000 for 1 credit.

[PSY 1003](#) - General Psychology [LE CAT6, SOC SCI] (4.0 cr)

[SOC 1101](#) - Introduction to Sociology [LE CAT6, LECD CAT06, SOC SCI, CDIVERSITY] (4.0 cr)

[SW 1000](#) - Introduction to Social Welfare [SOC SCI] (3.0 cr)

[UST 1000](#) - UMD Seminar (1.0 - 2.0 cr)

[BIOL 1001](#) - Biology and Society [LE CAT4, NAT SCI, SUSTAIN] (4.0 cr)

or [PSY 2021](#) - Developmental Psychology [LE CAT6, LECD CAT06, SOC SCI, CDIVERSITY] (4.0 cr)

### **General Requirements**

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.



## Program Requirements

### Required Core Courses (36 cr)

SW 4121 must be taken for 6 credits.

- SW 1619 - Race, Class, and Gender in the United States [LE CAT8, LECD CAT08, SOC SCI, CDIVERSITY] (3.0 cr)
- SW 4100 - Anti-Oppressive Social Work Practice (3.0 cr)
- SW 4101 - Human Behavior in Social Environment (3.0 cr)
- SW 4102 - Introduction to Social Work Research (3.0 cr)
- SW 4103 - Senior Capstone Project (2.0 cr)
- SW 4111 - Introduction to Individual, Family and Group Practice (3.0 cr)
- SW 4112 - Organization and Community Practice (3.0 cr)
- SW 4120 - Community Volunteer Experience (1.0 cr)
- SW 4121 - Senior Field Placement (3.0 - 6.0 cr)
- SW 4190 - American Indian Social Work Practice Issues (3.0 cr)
- SW 4201 - Social Welfare Policy (3.0 cr)
- WRIT 31xx - Adv Writ (3 cr)

### Statistics (3 - 4 cr)

- ECON 2030 - Applied Statistics for Business and Economics [LOGIC & QR] (3.0 cr)
- or PSY 2020 - Introduction to Statistics and Research Methods (3.0 cr)
- or PSY 3020 - Statistical Methods (4.0 cr)
- or SOC 2155 - Introduction to Research Methods and Analysis (4.0 cr)
- or STAT 1411 - Introduction to Statistics [LE CAT2, LOGIC & QR] (3.0 cr)
- or STAT 2411 - Statistical Methods [LE CAT2, LOGIC & QR] (3.0 cr)
- or Other comparable as approved

### Social Work Electives (12 cr)

Other classes may be used with permission of advisor.

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

- SW 1210 - Global Issues [LE CAT8, LEIP CAT08, SOC SCI, GLOBAL PER] (3.0 cr)
- SW 4113 - Introduction to Child Welfare Practice (3.0 cr)
- SW 5091 - Independent Study (1.0 - 4.0 cr)
- SW 5095 - Special Topics: (Various Titles to be Assigned) (1.0 - 4.0 cr)
- SW 5096 - Special Project (1.0 - 4.0 cr)
- SW 5111 - Grant Writing in the Human Services (1.0 - 2.0 cr)
- SW 4122 - Cross-Cultural Exploration Through Learning Circles (1.0 cr)
- or SW 5120 - Cross-Cultural Exploration Through Learning Circles (1.0 cr)
- SW 4144 - Grief, Loss and Coping (2.0 cr)
- or SW 5144 - Grief, Loss and Coping in Social Work Practice (2.0 cr)
- SW 4215 - Trauma Informed Practice with Children and Adolescents (2.0 cr)
- or SW 5215 - Trauma Informed Social Work Practice with Children and Adolescents (2.0 cr)
- SW 4222 - Intervention in Family Violence (2.0 cr)
- or SW 5222 - Intervention in Family Violence (2.0 cr)
- SW 4271 - Women and Social Policy (2.0 cr)
- or SW 5271 - Women and Social Policy (2.0 cr)
- SW 4280 - Substance Use trends and Interventions in Social Work [SOC SCI] (3.0 cr)
- or SW 5280 - Substance Use Trends and Interventions in Social Work (2.0 cr)

### Non Social Work Electives (11 cr)

Other classes may be used with permission of advisor.

Take 11 or more credit(s) from the following:

- AAAS 1104 - Introduction to Black America [CDIVERSITY] (3.0 cr)
- AAAS 3201 - The African American Family (3.0 cr)
- AMIN 1001 - Introduction to American Indian Studies [CDIVERSITY] (3.0 cr)
- AMIN 1010 - American Indian Experience to 1900 [LE CAT7, LECD CAT07, CDIVERSITY] (3.0 cr)
- AMIN 1020 - American Indian Experiences: 1900-present [LE CAT7, LECD CAT07, HUMANITIES, CDIVERSITY] (3.0 cr)
- AMIN 1103 - Beginning Ojibwe I [LE CAT3, LECD CAT03, COMM & LAN] (3.0 cr)
- AMIN 1104 - Beginning Ojibwe II [LE CAT3, LECD CAT03, COMM & LAN] (3.0 cr)
- AMIN 2210 - American Indian Politics: Law, Sovereignty, and Treaty Rights [LE CAT6, SOC SCI, CDIVERSITY] (3.0 cr)
- AMIN 2405 - American Indian Families and Society [LE CAT8, SOC SCI, CDIVERSITY] (3.0 cr)
- AMIN 2407 - Boarding Schools and Beyond: A History of American Indian Education [LE CAT8, LECD CAT08, CDIVERSITY] (3.0 cr)
- AMIN 3206 - Federal Indian Policy [LE CAT8, LECD CAT08, SOC SCI, CDIVERSITY] (3.0 cr)



- AMIN 3230 - American Indian Tribal Government and Law [SOC SCI, CDIVERSITY] (3.0 cr)
- AMIN 4230 - Introduction to Federal Indian Law [SOC SCI, CDIVERSITY] (3.0 cr)
- ANTH 1080 - Understanding Global Cultures [LE CAT8, LEIP CAT08, SOC SCI, GLOBAL PER] (4.0 cr)
- ANTH 1604 - Cultural Anthropology [LE CAT6, LEIP CAT06, SOC SCI, GLOBAL PER] (4.0 cr)
- ANTH 1620 - Introduction to Public Culture: Citizenship, Science, and Culture (4.0 cr)
- ANTH 3156 - Digital and Participatory Research Methods (4.0 cr)
- ANTH 3200 - Exploring Sustainability in Costa Rica (4.0 cr)
- ANTH 3300 - Energy, Culture and Society [GLOBAL PER] (4.0 cr)
- ANTH 3628 - Women in Cross-Cultural Perspective (3.0 cr)
- ANTH 4500 - The New Commons: Governing Shared Resources for Present and Future Generations [SUSTAIN] (4.0 cr)
- ANTH 4616 - Culture and Personality (3.0 cr)
- ANTH 4623 - Anthropology and Contemporary Human Problems (3.0 cr)
- ANTH 4652 - Cultural Theory for Wicked Problems (4.0 cr)
- ASL 4110 - Deaf Culture (3.0 cr)
- BHSC 5432 - Clinical Psychopharmacology (3.0 cr)
- COMM 1000 - Human Communication Theory [LE CAT3, SOC SCI] (3.0 cr)
- COMM 1222 - Interpersonal Communication [LE CAT3, LECD CAT03, COMM & LAN] (3.0 cr)
- COMM 3205 - Relationship Communication (3.0 cr)
- COMM 3535 - Intercultural Communication [LE CAT6, LEIP CAT06, CDIVERSITY] (4.0 cr)
- CRIM 1301 - Introduction to Criminology [LE CAT8, SOC SCI] (4.0 cr)
- CRIM 3322 - Law and Society (3.0 cr)
- CRIM 3324 - Sociology of Criminal Law (3.0 cr)
- CRIM 3375 - Restorative Justice (3.0 cr)
- CRIM 4323 - Women and Justice (3.0 cr)
- CRIM 4340 - Race, Crime and Justice (3.0 cr)
- CRIM 4382 - Victimology (3.0 cr)
- ECH 2010 - Foundational Issues in Early Childhood Studies (3.0 cr)
- ECH 2025 - Educating the Human Brain [SOC SCI] (3.0 cr)
- EDUC 1000 - Human Development (3.0 cr)
- EDUC 1100 - Human Diversity [LE CAT8, LECD CAT08, CDIVERSITY] (3.0 cr)
- EDUC 1101 - Education in Modern Society [LE CAT7, HUMANITIES] (3.0 cr)
- EDUC 3340 - Interacting with Diverse Families (3.0 cr)
- EDUC 5340 - Interacting With Diverse Families (3.0 cr)
- EDUC 5381 - Teaching Indigenous Students (2.0 cr)
- GEOG 1202 - World Regional Geography [LE CAT8, LEIP CAT08, GLOBAL PER] (3.0 cr)
- GEOG 1304 - Human Geography [LE CAT6, LECD CAT06, SOC SCI] (3.0 cr)
- GEOG 2305 - Geography of Cultural Diversity [CDIVERSITY] (3.0 cr)
- PHIL 1007 - Philosophy and World Religions [LE CAT7, LEIP CAT07, HUMANITIES, GLOBAL PER] (3.0 cr)
- POL 3040 - Women and Politics (3.0 cr)
- PSY 2023 - Marriages and Families Worldwide [LE CAT8, LEIP CAT08, GLOBAL PER] (4.0 cr)
- PSY 2223 - Gender in Society [LE CAT8, LECD CAT08, CDIVERSITY] (4.0 cr)
- PSY 3051 - Cross-cultural Psychology (3.0 cr)
- PSY 3111 - Theories of Personality (3.0 cr)
- PSY 3121 - Abnormal Psychology (4.0 cr)
- PSY 3122 - Child and Adolescent Abnormal Psychology (3.0 cr)
- PSY 3201 - Social Psychology (3.0 cr)
- PSY 3211 - Group Dynamics (3.0 cr)
- PSY 3215 - Topics in Human Sexuality (3.0 cr)
- PSY 3231 - Psychology of Drug Use (3.0 cr)
- PSY 3371 - Child and Adolescent Psychology (3.0 cr)
- PSY 3381 - Adult Development and Aging (3.0 cr)
- SOC 1201 - Sociology of the Family [LE CAT8, LECD CAT08, SOC SCI, CDIVERSITY] (3.0 cr)
- SOC 3330 - The American Civil Rights Movement [SOC SCI, CDIVERSITY] (3.0 cr)
- SOC 3701 - Social Psychology [SOC SCI] (3.0 cr)
- SOC 3821 - Sociology of Community (3.0 cr)
- SOC 3831 - Organizations and Society (4.0 cr)
- SOC 3901 - Social Change and Social Policy (3.0 cr)
- SOC 3945 - Social Stratification (3.0 cr)
- SOC 4370 - Sociology of Mental Health and Illness (3.0 cr)
- SOC 4925 - Sociology of Rape (3.0 cr)
- SOC 4935 - Peace Studies (3.0 cr)
- SOC 4947 - Sociology of Gender Identities and Systems (3.0 cr)
- SOC 4949 - Race and Ethnic Relations (3.0 cr)
- SOC 4981 - Social Movements, Protest and Change (4.0 cr)
- SOC 4982 - Political Sociology and the Global Economy (4.0 cr)



- SPED 1357 - Individuals with Disabilities in Society [LE CAT8, LECD CAT08, CDIVERSITY] (3.0 cr)
- SPED 3109 - Supporting Social/Emotional Development Birth-8 (3.0 cr)
- SPED 4250 - Foundations of Autism Spectrum Disorders (4.0 cr)
- SPED 4850 - Foundations of Fetal Alcohol Spectrum Disorder (4.0 cr)
- WS 1000 - Introduction to Women's and Gender Studies [LE CAT7, LECD CAT07, CULT DIV, SOC SCI, CDIVERSITY] (3.0 cr)
- WS 2001 - Introduction to Lesbian Gay Bisexual and Transgender Studies [LE CAT8, LECD CAT08, CDIVERSITY] (4.0 cr)
- WS 2101 - Women, Race, and Class [LE CAT8, LECD CAT08, SOC SCI, CDIVERSITY] (3.0 cr)
- WS 3000 - Transnational Perspectives on Feminism [SOC SCI, GLOBAL PER] (3.0 cr)
- WS 3001 - Gender Relations in the Global South [GLOBAL PER] (3.0 cr)
- WS 3150 - Women-Identified Culture [CDIVERSITY] (3.0 cr)
- WS 3350 - Women and the Law [CDIVERSITY] (3.0 cr)
- WS 3450 - Motherhood and Mothering: Institution and Experience (3.0 cr)
- WS 3775 - Gender, Globalization and Food [SUSTAIN] (3.0 cr)
- WS 3800 - Feminist Activism and Community Organizing (4.0 cr)



**Duluth Campus**

## Special Education Minor

Education

**College of Education and Human Service Professions**

- Program Type: Undergraduate free-standing minor
- Requirements for this program are current for Fall 2016
- Required credits in this minor: 20

Courses for the special education minor apply toward but do not complete K-12 special education licensure requirements. Remaining courses can be taken on a postbaccalaureate contract.

### Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

### Minor Requirements

**Special Education Minor Courses (20 cr)**

[SPED 4204](#) - Assessment in the General and Special Education Classroom (4.0 cr)

[SPED 4381](#) - Classroom and Behavior Management (4.0 cr)

[SPED 4433](#) - Foundations in Special Education (4.0 cr)

[SPED 4435](#) - Parent and Professional Communication and Collaboration (4.0 cr)

[SPED 4452](#) - Academic Interventions for Students with Disabilities (4.0 cr)

### Duluth Campus

## Teaching Communication Arts and Literature B.A.A.

Education, English

### College of Education and Human Service Professions

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 120
- Required credits within the major: 97
- Degree: Bachelor of Applied Arts

The B.A.A. in teaching communication arts/literature is offered by the Department of Education in conjunction with the Departments of English, Communication, Linguistics, and Writing Studies. This program is required for students seeking teacher licensure as Minnesota Communication Arts/Literature teachers for grades 5 through 12.

### Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

### Admission Requirements

Students must complete 45 credits before admission to the program.

Freshman and transfer students are usually admitted to pre-major status before admission to this major

A GPA above 2.0 is preferred for the following:

- 2.50 already admitted to the degree-granting college
- 2.50 transferring from another University of Minnesota college
- 2.50 transferring from outside the University

Students entering the secondary & K-12 licensure programs are bound by the policies in effect at the time of application; admission is based on criteria established by the Dept. of Educ. consistent with MN policies as established by the Council for the Accreditation of Educ Preparation (CAEP). Students must 1)complete EDUC 1101 2)GPA of at least 2.50 cumulative including transfer work & in major courses completed at time of application 3)take the MTLE Basic Skills Test for licensure or have passing scores on the ACT Plus Writing or SAT Exam 4)minimum 30 documented hours working with students in grades 5-12 5)minimum of 1 letter of recommendation 6)receive a C- or better in all required courses for the major. Students must submit a letter of application, resume, letters of recommendation, and their APAS report. There are alternatives to the admission procedures to encourage the participation of individuals from underrepresented groups and students as determined by the dept.

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

#### Required prerequisites

##### Introductory Course (1 cr)

This course will be waived for transfer students or students who change colleges from a college where it is not required.

Register course for one credit.

[UST 1000](#) - UMD Seminar (1.0 - 2.0 cr)

##### Lower Division Requirements (16 cr)

[COMM 1112](#) - Public Speaking [LE CAT3, COMM & LAN] (3.0 cr)

[COMM 1222](#) - Interpersonal Communication [LE CAT3, LECD CAT03, COMM & LAN] (3.0 cr)

[EDUC 1101](#) - Education in Modern Society [LE CAT7, HUMANITIES] (3.0 cr)

[ENGL 1582](#) - Introduction to World Literatures [LE CAT9, LEIP CAT09, HUMANITIES, GLOBAL PER] (4.0 cr)

[LING 1811](#) - Introduction to Linguistics [LE CAT2, LOGIC & QR] (3.0 cr)

### General Requirements

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two

- degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
  3. Students must complete a minimum of 120 semester credits.
  4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
  5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
  6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
  7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
  8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

## Program Requirements

1. Compliance with general regulations governing granting of degrees. Students are required to review their degree status in the CEHSP Advising & Academic Services Office early in their senior year.
2. Students are expected to: a) make satisfactory progress each semester, including grades of C- or better in all courses required in the major; b) demonstrate acceptable professional performance in applied learning settings (e.g., laboratory, field experiences, clinical experiences); and c) obtain an approved background check before being placed in clinical, field, intern, or student teaching experiences. Students who do not meet program expectations can be dismissed from the major. Details on these requirements are available from the department office.

### Upper Division Requirements (39 cr)

Students must make satisfactory academic progress and demonstrate acceptable professional performance in field experiences. Students must have personal liability insurance while they are working in field placement settings.

Students must register for 4 credits in EDUC 3412.

- [EDUC 3412](#) - The Computer in Education (4.0 cr)
- [ENGL 3501](#) - British Literature I [HUMANITIES] (4.0 cr)
- [ENGL 3563](#) - American Literature I [HUMANITIES, CDIVERSITY] (4.0 cr)
- [ENGL 3564](#) - American Literature II [HUMANITIES, CDIVERSITY] (4.0 cr)
- [ENGL 3906](#) - Methods of Literary Study (4.0 cr)
- [ENGL 4802](#) - English Language for Educators (4.0 cr)
- [ENGL 4902](#) - Teaching Language, Cognition, and Writing (4.0 cr)
- [HLTH 3202](#) - Drug Education (2.0 cr)

### English Electives

One British period course strongly recommended. Upper-division WRIT, LING, COMM course may be counted if relevant to licensure content area; consult advisor.

Take 6 or more credit(s) from the following:

- ENGL 3xxx
- ENGL 4xxx
- ENGL 5xxx

### Advanced Writing Requirement

- [WRIT 3100](#) - Advanced Writing: Language and Literature (3.0 cr)
- or [WRIT 3140](#) - Advanced Writing: Human Services (3.0 cr)
- or [ENGL 3115](#) - Writing Fiction (4.0 cr)
- or [ENGL 3121](#) - Writing Poetry (4.0 cr)
- or [ENGL 5116](#) - Advanced Writing of Fiction (4.0 cr)
- or [ENGL 5122](#) - Advanced Writing of Poetry (4.0 cr)

### Block Requirements (41 cr)

Application for admission to the blocks can only be completed fall semester for spring semester admission. Application for admission to the blocks must be submitted by the 6th Friday of the semester. Applications are available from the Department of Education website.

#### Block I (16 cr)

All courses must be taken concurrently. Consult advisor for additional upper division English courses.

- [EDSE 4204](#) - Designing Learning Environments and Lessons (3.0 cr)
- [EDSE 4215](#) - Teaching Reading and Literature: Grades 5-12 (4.0 cr)
- [EDSE 4100](#) - Teaching in a Diverse Society (3.0 cr)
- [EDSE 4501](#) - Adolescent/Adult Development and Learning Theory (3.0 cr)



[SPED 3415](#) - Special Education in the Secondary School (3.0 cr)

**Block 2 (12 cr)**

All courses must be taken concurrently. Application for student teaching must be made by the 4th Friday of the semester before student teaching. Applications are available from the Department of Education website. Consult advisor for additional upper division courses to take at this time.

[EDSE 3206](#) - Apprenticeship: Secondary School (2.0 cr)

[EDSE 4525](#) - Assessment for Secondary Education (3.0 cr)

[EDUC 4381](#) - Teaching Indigenous Students (3.0 cr)

[ENGL 4922](#) - Teaching Literature and Communication (4.0 cr)

**Block 3 (13 cr)**

All courses must be taken concurrently. Registration for student teaching in the senior year requires grades of C- or better in all courses in teaching major(s) and minor; graded completion of all education block courses; completion of at least 85% of teaching major courses. Students must have personal liability insurance while they are working in field placement settings. Students must register for EDSE 4600 for 12 credits.

[EDUC 4500](#) - Professional Issues and Ethics (1.0 cr)

[EDSE 4600](#) - Student Teaching (3.0 - 12.0 cr)

### Duluth Campus

## Teaching Earth and Space Science B.A.Sc.

*D Earth & Environmental Sci, Education*

### College of Education and Human Service Professions

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 132 to 163
- Required credits within the major: 114 to 146
- This program is 9 terms (4½ years) long.
- This program requires summer terms.
- Degree: Bachelor of Applied Science

The B.A.Sc. in Teaching Earth and Space Sciences is offered by the Department of Education in conjunction with the Department of Geological Sciences. This major is for students who plan to teach all science areas in grades 5 through 8 and teach earth and space sciences in grades 9 through 12.

Students have the option of also completing the environmental education emphasis with this major. This emphasis enhances the student's major by integrating environmental education into formal (pre-K-12), as well as nonformal education settings such as parks and nature centers. A student in this emphasis must meet the same GPA requirements as for the major. The emphasis is noted on the student's diploma.

### Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

### Admission Requirements

Students must complete 45 credits before admission to the program.

Freshman and transfer students are usually admitted to pre-major status before admission to this major

A GPA above 2.0 is preferred for the following:

- 2.50 already admitted to the degree-granting college
- 2.50 transferring from another University of Minnesota college
- 2.50 transferring from outside the University

Students entering the secondary and K-12 licensure programs are bound by the policies in effect at the time of application; admission is based on criteria established by the Dept. of Education, consistent with MN policies as established by the Council for the Accreditation of Education Preparation (CAEP). Students must 1) complete EDUC 1101 2) GPA of at least 2.50 cumulative including transfer work & in major courses completed at time of application 3) take the MTLE Basic Skills Test for licensure or have passing scores on the ACT Plus Writing or SAT Exam 4) minimum 30 documented hours working with students in grades 5-12 5) minimum of 1 letter of recommendation 6) receive a C- or better in all required courses for the major. Students must submit a letter of application, resume, letters of recommendation and their APAS report. There are alternatives to the admission procedures to encourage the participation of individuals from underrepresented groups and students as determined by the dept.

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

### Required prerequisites

#### Introductory Course (1 cr)

This course will be waived for transfer students or students who change colleges from a college where it is not required.

Register course for one credit.

[UST 1000](#) - UMD Seminar (1.0 - 2.0 cr)

### General Requirements

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two

degrees cannot be awarded for the same major.

2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

## Program Requirements

1. Compliance with general regulations governing granting of degrees. Students are required to review their degree status in the CEHSP Advising & Academic Services Office early in their senior year.
2. Degree candidates must complete at least 20 of the last 30 degree credits immediately before graduation at UMD.
3. Students must make satisfactory academic progress and demonstrate acceptable professional performance in field experiences.
4. Program completers must pass all tests required by the Minnesota Board of Teaching to be recommended for licensure.
5. Students are expected to: a) make satisfactory progress each semester, including grades of C- or better in all courses required in the major; b) demonstrate acceptable professional performance in applied learning settings (e.g., laboratory, field experiences, clinical experiences); and c) obtain an approved background check before being placed in clinical, field, intern, or student teaching experiences. Students who do not meet program expectations can be dismissed from the major. Details on these requirements are available from the department office.

### Lower Division Requirements (55 cr)

- [AST 1040](#) - Introductory Astronomy [LE CAT5, NAT SCI] (3.0 cr)
- [BIOL 1011](#) - General Biology I [LE CAT4, NAT SCI] (5.0 cr)
- [BIOL 1012](#) - General Biology II [SUSTAIN] (5.0 cr)
- [CHEM 1113](#) - Introduction to General, Organic, and Biological Chemistry I [LE CAT4, NAT SCI] (5.0 cr)
- [CHEM 1114](#) - Introduction to General, Organic, and Biological Chemistry II (5.0 cr)
- [EDUC 1101](#) - Education in Modern Society [LE CAT7, HUMANITIES] (3.0 cr)
- [GEOL 1110](#) - Geology and Earth Systems [LE CAT4, NAT SCI, SUSTAIN] (4.0 cr)
- [GEOL 1610](#) - Oceanography [LE CAT5, NAT SCI, SUSTAIN] (3.0 cr)
- [GEOL 2110](#) - Earth History (4.0 cr)
- [GEOL 2311](#) - Mineralogy (4.0 cr)
- [MATH 1250](#) - Precalculus Analysis [LE CAT2, LOGIC & QR] (4.0 cr)
- [PHYS 1001](#) - Introduction to Physics I [LE CAT4, NAT SCI] (5.0 cr)
- [PHYS 1002](#) - Introduction to Physics II (5.0 cr)

### Upper Division (18 - 19 cr)

- [EDUC 3412](#) - The Computer in Education (4.0 cr)
- [EDUC 4234](#) - Science, Technology, and Society [SUSTAIN] (3.0 cr)
- [GEOG 3401](#) - Weather and Climate (3.0 cr)
- [HLTH 3202](#) - Drug Education (2.0 cr)
- [GEOL 2120](#) - The Earth's Dynamic Interior (3.0 cr)  
or [GEOL 3210](#) - Geomorphology (4.0 cr)
- [WRIT 3140](#) - Advanced Writing: Human Services (3.0 cr)  
or [WRIT 3150](#) - Advanced Writing: Science (3.0 cr)

### Block Requirements (40 cr)

Application for admission to the blocks can only be completed spring semester for fall semester admission. Application for admission to the blocks must be submitted by the sixth Friday of the semester. Applications are available from the Department of Education website.

#### Block I (12 cr)

All courses must be taken concurrently.

- [EDSE 4204](#) - Designing Learning Environments and Lessons (3.0 cr)

EDSE 4100 - Teaching in a Diverse Society (3.0 cr)  
EDSE 4501 - Adolescent/Adult Development and Learning Theory (3.0 cr)  
SPED 3415 - Special Education in the Secondary School (3.0 cr)

**Block 2 (15 cr)**

All courses must be taken concurrently. Application for student teaching must be made by the fourth Friday of the semester before student teaching. Applications are available from Department of Education website. EDSE 4255 and GEOL 4110 offered spring only. Consult advisor for additional upper division science courses.

EDSE 3206 - Apprenticeship: Secondary School (2.0 cr)  
EDSE 4214 - Teaching Content-Area Reading (2.0 cr)  
EDSE 4255 - Teaching Science: Grades 5-12 (3.0 cr)  
EDSE 4525 - Assessment for Secondary Education (3.0 cr)  
EDUC 4381 - Teaching Indigenous Students (3.0 cr)  
EDUC 4110 - Advanced Earth Science for Teachers (2.0 cr)

**Block 3 (13 cr)**

All courses must be taken concurrently. Registration for student teaching in the senior year requires grades of C- or better in all courses in teaching major(s) and minor. Graded completion of all education block courses; completion of at least 85% of teaching major courses. Students must have personal liability insurance while they are working in field placement settings. Students must register for 12 credits in EDSE 4600.

EDSE 4600 - Student Teaching (3.0 - 12.0 cr)  
EDUC 4500 - Professional Issues and Ethics (1.0 cr)

## Program Sub-plans

A sub-plan is not required for this program.

### Environmental Education

This emphasis enhances the student's major by integrating environmental education into formal (pre-K-12), as well as nonformal education settings such as parks and nature centers.

A student in this emphasis must meet the same GPA requirements as for the major. The emphasis is noted on the student's diploma.

**Environmental Education Courses (25 cr)**

ENED 3309 - Outdoor Leadership (1.0 cr)  
ENED 3310 - Outdoor Leadership Field Experience (2.0 cr)  
ENED 3341 - Field Interpretive Techniques I (3.0 cr)  
ENED 3342 - Field Interpretive Techniques II (3.0 cr)  
ENED 4163 - Outdoor Education Methods (3.0 cr)  
HLTH 1650 - CPR/AED for the Professional Rescuer (1.0 cr)  
HLTH 1700 - First Responder (3.0 cr)  
PETE 3507 - Teaching Outdoor Skills II (2.0 cr)  
ENED 1203 - Outdoor Skills I (2.0 cr)  
ENED 1204 - Outdoor Skills II (2.0 cr)  
ENED 4997 - Recreation Practicum (3.0 cr)

**Electives (6 cr)**

Pre-approved natural science courses may be substituted.

Take 6 or more credit(s) from the following:

- ES 2803 - Issues in Global Ecology [LE CAT5, LEIP CAT05, SUSTAIN] (3.0 cr)
- BIOL 3603 - Plant Taxonomy (3.0 cr)
- BIOL 4731 - Entomology (3.0 cr)
- BIOL 4761 - Ichthyology (3.0 cr)
- BIOL 4763 - Ornithology (3.0 cr)
- BIOL 5833 - Stream Ecology (3.0 cr)
- BIOL 5861 - Lake Ecology (3.0 cr)
- ENED 5325 - Sustainability Issues Investigation (2.0 cr)
- GEOL 5210 - Glacial and Quaternary Geology (4.0 cr)

### **Duluth Campus**

## **Teaching French B.A.A.**

*Education, Foreign Languages & Literatures*

### **College of Education and Human Service Professions**

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 120
- Required credits within the major: 72 to 92
- Degree: Bachelor of Applied Arts

The B.A.A. in teaching French is offered through the Department of Education, in conjunction with the Department of Foreign Languages and Literatures. This major prepares students for licensure as a French teacher from kindergarten through grade 12.

### **Program Delivery**

This program is available:

- via classroom (the majority of instruction is face-to-face)

### **Admission Requirements**

Students must complete 45 credits before admission to the program.

Freshman and transfer students are usually admitted to pre-major status before admission to this major

A GPA above 2.0 is preferred for the following:

- 2.50 already admitted to the degree-granting college
- 2.50 transferring from another University of Minnesota college
- 2.50 transferring from outside the University

Students entering the secondary and K-12 licensure programs are bound by the policies in effect at the time of application; admission is based on criteria established by the Dept. of Education, consistent with MN policies as established by the Council for the Accreditation of Education Preparation (CAEP). Students must 1) complete EDUC 1101; 2) GPA of at least 2.50 cumulative including transfer work & in major courses completed at time of application; 3) take the MTLE Basic Skills Test for licensure or have passing scores on the ACT Plus Writing or SAT Exam; 4) minimum 30 documented hours working with students in grades K-12; 5) minimum of 1 letter of reference 6) receive a C- or better in all required courses for the major. Students must submit a letter of application, resume, letters of recommendation and their APAS report. There are alternatives to the admission procedures to encourage the participation of individuals from underrepresented groups and students as determined by the dept.

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

#### **Required prerequisites**

##### **Introductory Course (1 cr)**

This course will be waived for transfer students or students who change colleges from a college where it is not required.

Register course for one credit.

[UST 1000](#) - UMD Seminar (1.0 - 2.0 cr)

##### **Lower Division Requirements (3-23 cr)**

Students may be exempted from part of the lower division requirements if they have previously completed French language coursework. Dept of Foreign Languages and Literatures determines exemptions based on acceptance of transfer credits and work done in secondary school. Students with 3 years of high school French enter the sequence at the intermediate French level and are exempted from FR 1101-1102. Exemption does not necessarily carry credits toward the 120 credits needed for graduation.

[EDUC 1101](#) - Education in Modern Society [LE CAT7, HUMANITIES] (3.0 cr)

[FR 1101](#) - Beginning French I [LE CAT3, COMM & LAN] (4.0 cr)

[FR 1102](#) - Beginning French II [LE CAT3, COMM & LAN] (4.0 cr)

[FR 1201](#) - Intermediate French I [LE CAT3, COMM & LAN] (4.0 cr)

[FR 1202](#) - Intermediate French II [LE CAT3, LEIP CAT03, COMM & LAN] (4.0 cr)

[FR 2301](#) - Advanced French [LE CAT3, LEIP CAT03, COMM & LAN] (4.0 cr)

## General Requirements

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

## Program Requirements

1. For liberal education, it is recommended students take LING 1811 for Logic and Quantitative Reasoning requirement.
2. Students must successfully complete an oral proficiency exam administered by the Department of Foreign Languages and Literatures before student teaching.
3. Compliance with general regulations governing granting of degrees. Students are required to review their degree status in the CEHSP Advising & Academic Services Office early in their senior year.
4. Study abroad is essential for success in learning French.
5. Those that complete the program must pass all tests required by the Minnesota Board of Teaching to be recommended for licensure.
6. Students are expected to: a) make satisfactory progress each semester, including grades of C- or better in all courses required in the major; b) demonstrate acceptable professional performance in applied learning settings (e.g., laboratory, field experiences, clinical experiences); and c) obtain an approved background check before being placed in clinical, field, intern, or student teaching experiences. Students who do not meet program expectations can be dismissed from the major. Details on these requirements are available from the department office.

### Upper Division Requirements (29 cr)

Some of the upper division French courses may be transferred from another college or earned abroad, but at least two courses must be taken at University of Minnesota, Duluth. By second semester, sophomore year, students start upper division requirements and plan for application to the secondary teacher education program (STEP)

[EDUC 3412](#) - The Computer in Education (4.0 cr)

[HLTH 3202](#) - Drug Education (2.0 cr)

[WRIT 3140](#) - Advanced Writing: Human Services (3.0 cr)

Must be completed prior to student teaching.

### FR 3xxx-4xxx: including one culture course taught in French

Take 20 or more credit(s) from the following:

- [FR 2315](#) - French Cinema [LE CAT9, LEIP CAT09, HUMANITIES] (4.0 cr)
- [FR 3302](#) - Advanced French Composition and Conversation [COMM & LAN] (4.0 cr)
- [FR 4412](#) - Contemporary French Culture and Society [HUMANITIES, GLOBAL PER] (4.0 cr)
- [FR 4422](#) - 20th-Century Novel [HUMANITIES] (4.0 cr)
- [FR 4472](#) - French Classical Literature [HUMANITIES] (4.0 cr)
- [FR 4492](#) - 19th-Century Novel [HUMANITIES] (4.0 cr)

### Block Requirements (39 cr)

Application for admission to the blocks is preferred to be completed spring semester for fall semester admission. Application for admission to the blocks must be submitted by the 6th Friday of the semester. Applications are available from the Department of Education.

#### Block 1 (12 cr)

All courses must be taken concurrently. Consult advisor for additional upper division French courses.



- EDSE 4204 - Designing Learning Environments and Lessons (3.0 cr)
- EDSE 4100 - Teaching in a Diverse Society (3.0 cr)
- EDSE 4501 - Adolescent/Adult Development and Learning Theory (3.0 cr)
- SPED 3415 - Special Education in the Secondary School (3.0 cr)

**Block 2 (14 cr)**

All courses must be taken concurrently. Application for student teaching must be made by the 4th Friday of the semester before student teaching. Applications are available from the Department of Education website. Consult advisor for additional upper division French courses.

- EDSE 3206 - Apprenticeship: Secondary School (2.0 cr)
- EDSE 4214 - Teaching Content-Area Reading (2.0 cr)
- EDUC 4040 - World Language Teaching Methods (4.0 cr)
- EDUC 4381 - Teaching Indigenous Students (3.0 cr)
- EDSE 4525 - Assessment for Secondary Education (3.0 cr)

**Block 3 (13 cr)**

All courses must be taken concurrently; EDSE 4600 register for 12 credits. Registration for student teaching in the senior year requires: grades of C- or better in all courses in the teaching major(s) and minor(s); completion (graded) of all education block courses; completion of oral proficiency exam, and completion of at least 85 percent of teaching major courses. Students must have personal liability insurance while they are working in field placement settings.

- EDSE 4600 - Student Teaching (3.0 - 12.0 cr)
- EDUC 4500 - Professional Issues and Ethics (1.0 cr)

**Exit Standards**

Students must successfully complete an oral proficiency exam administered by the Department of Foreign Languages and Literatures before student teaching.

## Duluth Campus

# Teaching German B.A.A.

*Education, Foreign Languages & Literatures*

## College of Education and Human Service Professions

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 120
- Required credits within the major: 72 to 92
- Degree: Bachelor of Applied Arts

The B.A.A. in teaching German is offered through the Department of Education, in conjunction with the Department of Foreign Languages and Literatures. This major prepares students to teach German from kindergarten through grade 12.

Note: Students pursuing both the B.A. and B.A.A. degrees in German must satisfactorily complete 12 non-overlapping upper division credits of German electives beyond the requirements for both degrees.

## Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

## Admission Requirements

Students must complete 45 credits before admission to the program.

Freshman and transfer students are usually admitted to pre-major status before admission to this major

A GPA above 2.0 is preferred for the following:

- 2.50 already admitted to the degree-granting college
- 2.50 transferring from another University of Minnesota college
- 2.50 transferring from outside the University

Students entering the secondary and K-12 licensure programs are bound by the policies in effect at the time of application, admission based on criteria established by Dept. of Educ consistent with MN policies as established by the Council for the Accreditation of Education Preparation (CAEP). Students must 1) complete EDUC 1101 2) GPA of at least 2.50 cumulative including transfer work and in major courses completed at time of application 3) take MTLE Basic Skills Test for licensure or passing scores on ACT+ Writing or SAT Exam 4) minimum 30 documented hours working with student grades K-12 5) minimum 1 letter of reference 6) C- or better in required courses for major. Students must submit letter of application, resume, letters of recommendation, and APAS. There are alternative to admission procedure to encourage participation of individuals from underrepresented group and students as determined by dept.

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

### Required prerequisites

#### Introductory Course (1 cr)

This course will be waived for transfer students or students who change colleges from a college where it is not required.

Register course for one credit.

[UST 1000](#) - UMD Seminar (1.0 - 2.0 cr)

#### Lower Division Requirements (3-23 cr)

Students may be exempted from part of the lower division requirements if they have previously completed German language coursework. Dept of Foreign Languages and Literatures determines exemptions based on acceptance of transfer credits and work done in secondary school. Students with 3 years of high school German enter sequence at the intermediate German level and are exempted from GER 1101-1102. Exemption does not necessarily carry credits toward the 120 credits needed for graduation.

[EDUC 1101](#) - Education in Modern Society [LE CAT7, HUMANITIES] (3.0 cr)

[GER 1101](#) - Beginning German I [LE CAT3, COMM & LAN] (4.0 cr)

[GER 1102](#) - Beginning German II [LE CAT3, COMM & LAN] (4.0 cr)

[GER 1201](#) - Intermediate German I [LE CAT3, COMM & LAN] (4.0 cr)

[GER 1202](#) - Intermediate German II [LE CAT3, LEIP CAT03, COMM & LAN] (4.0 cr)

[GER 2301](#) - Advanced German [LE CAT3, LEIP CAT03, COMM & LAN] (4.0 cr)

## General Requirements

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

## Program Requirements

1. It is recommended students take LING 1811 for Liberal Education Logic and Quantitative Reasoning.
2. Compliance with general regulations governing granting of degrees. Students are required to review their degree status in the CEHSP Advising & Academic Services Office early in their senior year.
3. Those who complete the program must pass all tests required by the Minnesota Board of Teaching to be recommended for licensure.
4. Students are expected to: a) make satisfactory progress each semester, including grades of C- or better in all courses required in the major; b) demonstrate acceptable professional performance in applied learning settings (e.g., laboratory, field experiences, clinical experiences); and c) obtain an approved background check before being placed in clinical, field, intern, or student teaching experiences. Students who do not meet program expectations can be dismissed from the major. Details on these requirements are available from the department office.

### Upper Division Requirements (29 cr)

Some of the upper division German courses may be transferred from another college or earned abroad, but at least two courses must be taken at University of Minnesota, Duluth. By the second semester, sophomore year, students start upper division major courses and plan for application to the secondary teacher education program (STEP).

[EDUC 3412](#) - The Computer in Education (4.0 cr)

[HLTH 3202](#) - Drug Education (2.0 cr)

[WRIT 3140](#) - Advanced Writing: Human Services (3.0 cr)

#### **GER 3xxx - 4xxx**

Must include one culture course taught in German.

Take 20 or more credit(s) from the following:

- [GER 3040](#) - Culture of Germany Studied in Germany (4.0 cr)
- [GER 3302](#) - Advanced Composition and Conversation [COMM & LAN] (4.0 cr)
- [GER 3401](#) - Texts and Contexts in German Speaking World [HUMANITIES] (4.0 cr)
- [GER 3403](#) - Page and Stage: German Theater and Performance [FINE ARTS] (4.0 cr)
- [GER 3601](#) - German Studies I: Knights to Nationalisms [HUMANITIES] (4.0 cr)
- [GER 3602](#) - German Studies II: From the Rise of the Reich to the Fall of the Wall [HUMANITIES] (4.0 cr)
- [GER 4302](#) - German Women Writers and Filmmakers [HUMANITIES] (4.0 cr)
- [GER 4305](#) - German Cinema [HUMANITIES] (4.0 cr)
- [GER 4404](#) - Contemporary Germany [HUMANITIES, GLOBAL PER] (4.0 cr)
- [GER 4502](#) - German Modernisms: From Vienna to Berlin [HUMANITIES] (4.0 cr)

### Block Requirements (39 cr)

Application for admission to the blocks is preferred to be completed spring semester for fall semester admission. Application for admission to the blocks must be submitted by the 6th Friday of the semester. Applications are available from the Department of Education website.



**Block 1 (12 cr)**

All courses must be taken concurrently. Consult advisor for additional upper division German course.

[EDSE 4204](#) - Designing Learning Environments and Lessons (3.0 cr)

[EDSE 4100](#) - Teaching in a Diverse Society (3.0 cr)

[EDSE 4501](#) - Adolescent/Adult Development and Learning Theory (3.0 cr)

[SPED 3415](#) - Special Education in the Secondary School (3.0 cr)

**Block 2 (14 cr)**

All courses must be taken concurrently. Application for student teaching must be made by the 4th Friday of the semester before student teaching. Applications are available from the Department of Education website. Consult adviser for additional upper division German course.

[EDSE 3206](#) - Apprenticeship: Secondary School (2.0 cr)

[EDSE 4214](#) - Teaching Content-Area Reading (2.0 cr)

[EDSE 4525](#) - Assessment for Secondary Education (3.0 cr)

[EDUC 4040](#) - World Language Teaching Methods (4.0 cr)

[EDUC 4381](#) - Teaching Indigenous Students (3.0 cr)

**Block 3 (13 cr)**

All courses must be taken concurrently; Registration for student teaching in the senior year requires: grades of C- or better in all courses in the teaching major(s) and minor(s); completion (graded) of all education block courses; completion of oral proficiency exam, and completion of at least 85 percent of teaching major courses. Students must have personal liability insurance while they are working in field placement settings. EDSE 4600 register for 12 credits.

[EDSE 4600](#) - Student Teaching (3.0 - 12.0 cr)

[EDUC 4500](#) - Professional Issues and Ethics (1.0 cr)

**Oral Proficiency Exam**

Students must successfully complete an oral proficiency exam administered by the Department of Foreign Languages and Literatures before student teaching.

### **Duluth Campus**

## **Teaching Life Science B.A.Sc.**

*Biology, Education*

### **College of Education and Human Service Professions**

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 140 to 174
- Required credits within the major: 122 to 153
- This program is 9 terms (4½ years) long.
- This program requires summer terms.
- Degree: Bachelor of Applied Science

The B.A.Sc. degree in Teaching Life Science is offered by the Department of Education in conjunction with the Department of Biology. This major prepares students to teach all science areas in grades 5-8 and to teach life science in grades 9 through 12.

Students have the option of also completing the environment education emphasis with this major.

### **Program Delivery**

This program is available:

- via classroom (the majority of instruction is face-to-face)

### **Admission Requirements**

Students must complete 45 credits before admission to the program.

Freshman and transfer students are usually admitted to pre-major status before admission to this major

A GPA above 2.0 is preferred for the following:

- 2.50 already admitted to the degree-granting college
- 2.50 transferring from another University of Minnesota college
- 2.50 transferring from outside the University

Students entering the secondary and K-12 licensure programs are bound by the policies in effect at the time of application; admission is based on criteria established by the Dept. of Educ, consistent with MN policies as established by the Council for the Accreditation of Education Preparation (CAEP). Students must 1)complete EDUC 1101 2)GPA of at least 2.50 cumulative including transfer work & in major courses completed at time of application 3)take the MTLE Basic Skills Test for licensure or have passing scores on the ACT Plus Writing or SAT Exam 4)minimum 30 documented hours working with students in grades 5--12 5)minimum of 1 letter of reference 6)receive a C-or better in all required courses for the major. Students must submit a letter of application, resume, letters of recommendation and their APAS report. There are alternatives to the admission procedures to encourage the participation of individuals from underrepresented groups and students as determined by the dept.

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

### **Required prerequisites**

#### **Introductory Course (1 cr)**

This course will be waived for transfer students or students who change colleges from a college where it is not required.

Register course for one credit.

[UST 1000](#) - UMD Seminar (1.0 - 2.0 cr)

### **General Requirements**

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.

4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

## Program Requirements

1. Compliance with general regulations governing granting of degrees. Students are required to review their degree status in the CEHSP Advising & Academic Services Office early in their senior year.
2. Students must make satisfactory academic progress and demonstrate acceptable professional performance in field experiences.
3. Program completers must pass all tests required by the Minnesota Board of Teaching to be recommended for licensure.
4. Students are expected to: a) make satisfactory progress each semester, including grades of C- or better in all courses required in the major; b) demonstrate acceptable professional performance in applied learning settings (e.g., laboratory, field experiences, clinical experiences); and c) obtain an approved background check before being placed in clinical, field, intern, or student teaching experiences. Students who do not meet program expectations can be dismissed from the major. Details on these requirements are available from the department office.

### Lower Division Requirement (59 cr)

#### General Requirements (24 cr)

- AST 1040 - Introductory Astronomy [LE CAT5, NAT SCI] (3.0 cr)
- EDUC 1101 - Education in Modern Society [LE CAT7, HUMANITIES] (3.0 cr)
- GEOL 1110 - Geology and Earth Systems [LE CAT4, NAT SCI, SUSTAIN] (4.0 cr)
- MATH 1250 - Precalculus Analysis [LE CAT2, LOGIC & QR] (4.0 cr)
- PHYS 1001 - Introduction to Physics I [LE CAT4, NAT SCI] (5.0 cr)
- PHYS 1002 - Introduction to Physics II (5.0 cr)

#### Biology (25 cr)

- BIOL 1011 - General Biology I [LE CAT4, NAT SCI] (5.0 cr)
- BIOL 1012 - General Biology II [SUSTAIN] (5.0 cr)
- BIOL 3100 - Cell Biology (3.0 cr)
- BIOL 2201 - Genetics (3.0 cr)
- BIOL 3771 - Human Anatomy (4.0 cr)
- BIOL 2801 - General Ecology (3.0 cr)
- BIOL 2802 - Ecology Laboratory (2.0 cr)

#### Chemistry (10 cr)

- CHEM 1113 - Introduction to General, Organic, and Biological Chemistry I [LE CAT4, NAT SCI] (5.0 cr)
- CHEM 1114 - Introduction to General, Organic, and Biological Chemistry II (5.0 cr)

### Upper Division Requirements (22 cr)

- BIOL 3703 - Animal Physiology (3.0 cr)
- BIOL 3401 - Evolution [SUSTAIN] (3.0 cr)
- EDUC 3412 - The Computer in Education (4.0 cr)
- EDUC 4234 - Science, Technology, and Society [SUSTAIN] (3.0 cr)
- GEOL 2110 - Earth History (4.0 cr)
- HLTH 3202 - Drug Education (2.0 cr)

#### Advanced Writing

- WRIT 3140 - Advanced Writing: Human Services (3.0 cr)
- or WRIT 3150 - Advanced Writing: Science (3.0 cr)

### Block Requirements (40 cr)

Application for admission to the blocks can only be completed spring semester for fall semester admission. Application for admission to the blocks must be submitted by the 6th Friday of the semester. Applications are available from the Department of Education website.

#### Block 1 (12 cr)

- All courses must be taken concurrently. Consult advisor for additional upper division science course.
- EDSE 4204 - Designing Learning Environments and Lessons (3.0 cr)

EDSE 4100 - Teaching in a Diverse Society (3.0 cr)  
 EDSE 4501 - Adolescent/Adult Development and Learning Theory (3.0 cr)  
 SPED 3415 - Special Education in the Secondary School (3.0 cr)

**Block 2 (15 cr)**

All courses must be taken concurrently. Application for student teaching must be made by the 4th Friday of the semester before student teaching. Applications are available from the Department of Education website. EDSE 4255 and GEOL 4110 offered spring only. Consult advisor for additional upper division science course.

EDSE 3206 - Apprenticeship: Secondary School (2.0 cr)  
 EDSE 4214 - Teaching Content-Area Reading (2.0 cr)  
 EDSE 4255 - Teaching Science: Grades 5-12 (3.0 cr)  
 EDSE 4525 - Assessment for Secondary Education (3.0 cr)  
 EDUC 4381 - Teaching Indigenous Students (3.0 cr)  
 EDUC 4110 - Advanced Earth Science for Teachers (2.0 cr)

**Block 3 (13 cr)**

All courses must be taken concurrently. Students must register for 12 credits in EDUC 4600. Registration for student teaching in the senior year requires: grades of C- or better in all courses in the teaching major(s) and minor(s); completion (graded) of all education block courses; and completion of at least 85 percent of teaching major courses. Students must have personal liability insurance while they are working in field placement settings.

EDSE 4600 - Student Teaching (3.0 - 12.0 cr)  
 EDUC 4500 - Professional Issues and Ethics (1.0 cr)

## Program Sub-plans

A sub-plan is not required for this program.

### Environmental Education

Students may complete the environmental education emphasis with this major. The environmental education emphasis is offered by the Department of Education in conjunction with the Department of Biology and the Department of Health, Physical Education, and Recreation. This emphasis enhances the student's major by integrating environmental education into formal (pre-K-12), as well as nonformal education settings such as parks and nature centers. This emphasis must be taken in conjunction with the teaching life science or teaching earth and space science majors. The emphasis is noted on the student's diploma.

Students must complete 31 credits for the environmental education emphasis.

### Requirements (25 cr)

ENED 3309 - Outdoor Leadership (1.0 cr)  
 ENED 3310 - Outdoor Leadership Field Experience (2.0 cr)  
 ENED 3341 - Field Interpretive Techniques I (3.0 cr)  
 ENED 3342 - Field Interpretive Techniques II (3.0 cr)  
 ENED 4163 - Outdoor Education Methods (3.0 cr)  
 HLTH 1650 - CPR/AED for the Professional Rescuer (1.0 cr)  
 HLTH 1700 - First Responder (3.0 cr)  
 PETE 3507 - Teaching Outdoor Skills II (2.0 cr)  
 ENED 1203 - Outdoor Skills I (2.0 cr)  
 ENED 1204 - Outdoor Skills II (2.0 cr)  
 ENED 4997 - Recreation Practicum (3.0 cr)

### Electives (6 cr)

Pre-approved natural science courses may be substituted.

Take 6 or more credit(s) from the following:

- BIOL 3603 - Plant Taxonomy (3.0 cr)
- BIOL 4731 - Entomology (3.0 cr)
- BIOL 4761 - Ichthyology (3.0 cr)
- BIOL 4763 - Ornithology (3.0 cr)
- BIOL 5833 - Stream Ecology (3.0 cr)
- BIOL 5861 - Lake Ecology (3.0 cr)
- ENED 5325 - Sustainability Issues Investigation (2.0 cr)
- ES 2803 - Issues in Global Ecology [LE CAT5, LEIP CAT05, SUSTAIN] (3.0 cr)
- GEOG 3401 - Weather and Climate (3.0 cr)
- GEOL 1610 - Oceanography [LE CAT5, NAT SCI, SUSTAIN] (3.0 cr)
- GEOL 5210 - Glacial and Quaternary Geology (4.0 cr)

### Duluth Campus

## Teaching Mathematics B.A.Sc.

Education, Mathematics & Statistics

### College of Education and Human Service Professions

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 125
- Required credits within the major: 99
- Degree: Bachelor of Applied Science

The B.A.Sc. in teaching mathematics is offered by the Department of Education in conjunction with the Department of Mathematics and Statistics. This major is for students who plan to teach mathematics in grades 5-12.

### Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

### Admission Requirements

Students must complete 45 credits before admission to the program.

Freshman and transfer students are usually admitted to pre-major status before admission to this major

A GPA above 2.0 is preferred for the following:

- 2.50 already admitted to the degree-granting college
- 2.50 transferring from another University of Minnesota college
- 2.50 transferring from outside the University

Students entering the secondary and K-12 licensure programs are bound by the policies in effect at the time of application; admission is based on criteria established by the Dept. of Educ, consistent with MN policies as established by the Council for the Accreditation of Education Preparation (CAEP). Students must 1) complete EDUC 1101; 2) GPA of at least 2.50 cumulative including transfer work & in major courses completed at time of application; 3) take the MTLE Basic Skills Test for licensure or have passing scores on the ACT Plus Writing or SAT Exam; 4) minimum 30 documented hours working with students in grades 5-12; 5) minimum of 1 letter of reference 6) receive a C- or better in all required courses for the major. Students must submit a letter of application, resume, letters of recommendation and their APAS report. There are alternatives to the admission procedures to encourage the participation of individuals from underrepresented groups & students as determined by the dept.

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

#### Required prerequisites

##### Introductory Course (1 cr)

This course will be waived for transfer students or students who change colleges from a college where it is not required.

Register course for one credit.

[UST 1000](#) - UMD Seminar (1.0 - 2.0 cr)

#### Lower Division (18 cr)

##### Computer Science

[CS 1511](#) - Computer Science I [LE CAT3, LOGIC & QR] (5.0 cr)

or [CS 1581](#) - Honors: Computer Science I [LE CAT3, LOGIC & QR] (5.0 cr)

##### Education

[EDUC 1101](#) - Education in Modern Society [LE CAT7, HUMANITIES] (3.0 cr)

##### Calculus I

[MATH 1296](#) - Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)

##### Calculus II

[MATH 1297](#) - Calculus II [LOGIC & QR] (5.0 cr)

### General Requirements

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an

undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

## Program Requirements

1. Compliance with general regulations governing granting of degrees. Students are required to review their degree status in the CEHSP Advising & Academic Services Office early in their senior year.
2. Make satisfactory academic progress and demonstrate acceptable professional performance in field experiences.
3. Program completers must pass all tests required by the Minnesota Board of Teaching to be recommended for licensure.
4. Students are expected to: a) make satisfactory progress each semester, including grades of C- or better in all courses required in the major; b) demonstrate acceptable professional performance in applied learning settings (e.g., laboratory, field experiences, clinical experiences); and c) obtain an approved background check before being placed in clinical, field, intern, or student teaching experiences. Students who do not meet program expectations can be dismissed from the major. Details on these requirements are available from the department office.

### Upper Division (42 cr)

- EDUC 3412 - The Computer in Education (4.0 cr)
- EDUC 4226 - Geometry for Teachers in Grades 5-8 (3.0 cr)
- EDUC 4227 - Number Theory for Teachers in Grades 5-8 (3.0 cr)
- EDUC 4228 - Teaching Mathematics with Technology (3.0 cr)
- HLTH 3202 - Drug Education (2.0 cr)
- MATH 3110 - Foundations of Mathematics and Geometry (4.0 cr)
- MATH 3280 - Differential Equations with Linear Algebra (4.0 cr)
- MATH 3355 - Discrete Mathematics (4.0 cr)
- MATH 3941 - Undergraduate Colloquium (1.0 cr)
- MATH 4201 - Elementary Real Analysis (4.0 cr)
- MATH 4370 - Introduction to Abstract Algebra for Teaching Majors (3.0 cr)
- STAT 3611 - Introduction to Probability and Statistics (4.0 cr)

### Advanced Writing

- WRIT 3140 - Advanced Writing: Human Services (3.0 cr)
- or WRIT 3150 - Advanced Writing: Science (3.0 cr)

### Education Blocks (39 cr)

Application for admission to the blocks can only be completed fall semester for spring semester admission. Application for admission to the blocks must be submitted by the 6th Friday of the semester. Applications are available from the Department of Education website.

#### Block 1 (12 cr)

All courses must be taken concurrently. Consult advisor for additional upper division math course.

- EDSE 4204 - Designing Learning Environments and Lessons (3.0 cr)
- EDSE 4100 - Teaching in a Diverse Society (3.0 cr)
- EDSE 4501 - Adolescent/Adult Development and Learning Theory (3.0 cr)
- SPED 3415 - Special Education in the Secondary School (3.0 cr)

#### Block 2 (14 cr)

All courses must be taken concurrently. Application for student teaching must be made by the 4th Friday of the semester before student teaching. Applications are available from the Department of Education website. Consult advisor for additional upper division



math course.

[EDSE 3206](#) - Apprenticeship: Secondary School (2.0 cr)

[EDSE 4214](#) - Teaching Content-Area Reading (2.0 cr)

[EDSE 4222](#) - Teaching Mathematics: Grades 5-12 (4.0 cr)

[EDSE 4525](#) - Assessment for Secondary Education (3.0 cr)

[EDUC 4381](#) - Teaching Indigenous Students (3.0 cr)

**Block 3 (13 cr)**

All courses must be taken concurrently. Students must take EDSE 4600 for 12 credits. Registration for student teaching in the senior year requires: grades of C- or better in all courses in the teaching major(s) and minor(s); completion (graded) of all education block courses; and completion of at least 85 percent of teaching major courses. Students must have personal liability insurance while they are working in field placement settings.

[EDSE 4600](#) - Student Teaching (3.0 - 12.0 cr)

[EDUC 4500](#) - Professional Issues and Ethics (1.0 cr)

### Duluth Campus

## Teaching Physical Science B.A.Sc.

*Chemistry and Biochemistry, Education, UMD-Physics & Astronomy*

### College of Education and Human Service Professions

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 136 to 140
- Required credits within the major: 118 to 122
- This program is 9 terms (4½ years) long.
- Degree: Bachelor of Applied Science

Students can choose to complete the chemistry emphasis or the physics emphasis.

### Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

### Admission Requirements

Students must complete 45 credits before admission to the program.

Freshman and transfer students are usually admitted to pre-major status before admission to this major

A GPA above 2.0 is preferred for the following:

- 2.50 already admitted to the degree-granting college
- 2.50 transferring from another University of Minnesota college
- 2.50 transferring from outside the University

Students entering the secondary and K-12 licensure programs are bound by the policies in effect at the time of application; admission is based on criteria established by the Dept. of Education, consistent with MN policies as established by the Council for the Accreditation of Education Preparation (CAEP). Students must 1) complete EDUC 1101; 2) GPA of at least 2.50 cumulative including transfer work & in major courses completed at time of application; 3) take the MTLE Basic Skills Test for licensure or have passing scores on the ACT Plus Writing or SAT Exam; 4) minimum 30 documented hrs working with students in grades 5-12; 5) minimum of 1 letter of reference; 6) receive a C- or better in all required courses for the major. Students must submit a letter of application, resume, letters of recommendation and their APAS report. There are alternatives to the admission procedures to encourage the participation of individuals from underrepresented groups & students as determined by the dept.

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

#### Required prerequisites

##### Introductory Course (1 cr)

This course will be waived for transfer students or students who change colleges from a college where it is not required.

Register course for one credit.

[UST 1000](#) - UMD Seminar (1.0 - 2.0 cr)

### General Requirements

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this

- requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
  7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
  8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

## Program Requirements

1. Compliance with general regulations governing granting of degrees. Students are required to review their degree status in the CEHSP Advising & Academic Services Office early in their senior year.
2. Students must make satisfactory academic progress and demonstrate acceptable professional performance in field experiences.
3. Students that complete the program must pass all tests required by the Minnesota Board of Teaching to be recommended for licensure.
4. Students are expected to: a) make satisfactory progress each semester, including grades of C- or better in all courses required in the major; b) demonstrate acceptable professional performance in applied learning settings (e.g., laboratory, field experiences, clinical experiences); and c) obtain an approved background check before being placed in clinical, field, intern, or student teaching experiences. Students who do not meet program expectations can be dismissed from the major. Details on these requirements are available from the department office.

## Program Sub-plans

Students are required to complete one of the following sub-plans.

### Chemistry

The BASC degree in teaching physical science, chemistry emphasis, is offered by the Department of Education in conjunction with the Department of Chemistry and Biochemistry. This major (116 - 117 cr) prepares students to teach all science areas in grades 5 through 8 and to teach chemistry in grades 9 through 12.

### Lower Division Requirements (61 cr)

#### Astronomy

[AST 1040](#) - Introductory Astronomy [LE CAT5, NAT SCI] (3.0 cr)

#### Biology

[BIOL 1011](#) - General Biology I [LE CAT4, NAT SCI] (5.0 cr)

[BIOL 1012](#) - General Biology II [SUSTAIN] (5.0 cr)

#### Chemistry

[CHEM 1153](#) - General Chemistry I [LE CAT5, NAT SCI] (4.0 cr)

[CHEM 1154](#) - General Chemistry Lab I [LE CAT4, NAT SCI] (1.0 cr)

[CHEM 1155](#) - General Chemistry II (4.0 cr)

[CHEM 1156](#) - General Chemistry Lab II (1.0 cr)

[CHEM 2222](#) - Quantitative Analysis (3.0 cr)

[CHEM 2223](#) - Quantitative Analysis Laboratory (1.0 cr)

[CHEM 2541](#) - Organic Chemistry I (3.0 cr)

[CHEM 2542](#) - Organic Chemistry II (3.0 cr)

[CHEM 2543](#) - Organic Chemistry I Laboratory (1.0 cr)

[CHEM 2544](#) - Organic Chemistry II Laboratory (1.0 cr)

#### Education

[EDUC 1101](#) - Education in Modern Society [LE CAT7, HUMANITIES] (3.0 cr)

#### Geology

[GEOL 1110](#) - Geology and Earth Systems [LE CAT4, NAT SCI, SUSTAIN] (4.0 cr)

[GEOL 2110](#) - Earth History (4.0 cr)

#### Math

[MATH 1290](#) - Calculus for the Natural Sciences [LE CAT2, LOGIC & QR] (5.0 cr)

or [MATH 1296](#) - Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)

#### Physics

[PHYS 1001](#) - Introduction to Physics I [LE CAT4, NAT SCI] (5.0 cr)

[PHYS 1002](#) - Introduction to Physics II (5.0 cr)

### Upper Division Requirements (16 cr)

CHEM 3322 - Biochemistry (3.0 cr)  
 CHEM 3324 - Biochemistry Laboratory (1.0 cr)  
 EDUC 3412 - The Computer in Education (4.0 cr)  
 EDUC 4234 - Science, Technology, and Society [SUSTAIN] (3.0 cr)  
 HLTH 3202 - Drug Education (2.0 cr)

**Advanced Writing Requirement**

WRIT 3140 - Advanced Writing: Human Services (3.0 cr)  
 or WRIT 3150 - Advanced Writing: Science (3.0 cr)

**Block Requirements (40 cr)**

Application for admission to the blocks can only be completed spring semester for fall semester admission. Application for admission to the blocks must be submitted by the 6th Friday of the semester. Applications are available from the Department of Education website.

**Block 1 (12 cr)**

All courses must be taken concurrently. Consult advisor for additional upper division science course.

EDSE 4204 - Designing Learning Environments and Lessons (3.0 cr)  
 EDSE 4100 - Teaching in a Diverse Society (3.0 cr)  
 EDSE 4501 - Adolescent/Adult Development and Learning Theory (3.0 cr)  
 SPED 3415 - Special Education in the Secondary School (3.0 cr)

**Block 2 (15 cr)**

All courses must be taken concurrently. Application for student teaching must be made by the 4th Friday of the semester before student teaching. Application are available from the Department of Education website. EDSE 4255 and GEOL 4110 offered spring only. Consult advisor for additional upper division science course.

EDSE 3206 - Apprenticeship: Secondary School (2.0 cr)  
 EDSE 4214 - Teaching Content-Area Reading (2.0 cr)  
 EDSE 4255 - Teaching Science: Grades 5-12 (3.0 cr)  
 EDSE 4525 - Assessment for Secondary Education (3.0 cr)  
 EDUC 4381 - Teaching Indigenous Students (3.0 cr)  
 EDUC 4110 - Advanced Earth Science for Teachers (2.0 cr)

**Block 3 (13 cr)**

All courses must be taken concurrently. Registration for student teaching in the senior year requires grades of C- or better in all courses in teaching major(s) and minor; graded completion of all education block courses; completion of at least 85% of teaching major courses. Students must have personal liability insurance while they are working in field placement settings. EDSE 4600 register for 12 credits.

EDSE 4600 - Student Teaching (3.0 - 12.0 cr)  
 EDUC 4500 - Professional Issues and Ethics (1.0 cr)

**Physics**

The BAsC degree in teaching physical sciences, physics emphasis, is offered by the Department of Education in conjunction with the Department of Physics. This major (120 - 121 cr) prepares students to teach all science areas in grades 5 through 8 and to teach physics in grades 9 through 12. One semester of computer programming is recommended for students completing this major.

**Lower Division Requirements (64 cr)**

**Astronomy**

AST 1040 - Introductory Astronomy [LE CAT5, NAT SCI] (3.0 cr)

**Biology**

BIOL 1011 - General Biology I [LE CAT4, NAT SCI] (5.0 cr)  
 BIOL 1012 - General Biology II [SUSTAIN] (5.0 cr)

**Chemistry**

CHEM 1113 - Introduction to General, Organic, and Biological Chemistry I [LE CAT4, NAT SCI] (5.0 cr)  
 CHEM 1114 - Introduction to General, Organic, and Biological Chemistry II (5.0 cr)

**Education**

EDUC 1101 - Education in Modern Society [LE CAT7, HUMANITIES] (3.0 cr)

**Geology**

GEOL 1110 - Geology and Earth Systems [LE CAT4, NAT SCI, SUSTAIN] (4.0 cr)  
 GEOL 2110 - Earth History (4.0 cr)

**Math**

MATH 1296 - Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)  
 MATH 1297 - Calculus II [LOGIC & QR] (5.0 cr)

**Physics**

**Physics I**

PHYS 2013 - General Physics I [LE CAT5, NAT SCI] (4.0 cr)  
 or PHYS 2017 - Honors: General Physics I [NAT SCI] (4.0 cr)

**Phys I lab**

PHYS 2014 - General Physics Lab I [NAT SCI] (1.0 cr)

**Physics II**



PHYS 2015 - General Physics II (4.0 cr)  
or PHYS 2018 - Honors General Physics II (4.0 cr)  
PHYS 2016 - General Physics Lab II (1.0 cr)

**Additional Physics**

PHYS 2021 - Relativity and Quantum Physics (4.0 cr)  
PHYS 2022 - Classical Physics (4.0 cr)  
PHYS 2033 - Classical and Quantum Physics Lab (2.0 cr)

**Upper Division Requirements (17 cr)**

EDUC 3412 - The Computer in Education (4.0 cr)  
EDUC 4234 - Science, Technology, and Society [SUSTAIN] (3.0 cr)  
HLTH 3202 - Drug Education (2.0 cr)  
PHYS 3061 - Instrumentation (3.0 cr)  
PHYS 4110 - Physics for Science Teachers (2.0 cr)  
WRIT 3140 - Advanced Writing: Human Services (3.0 cr)  
or WRIT 3150 - Advanced Writing: Science (3.0 cr)

**Block Requirements (40 cr)**

Application for admission to the blocks must be submitted by the 6th Friday of the semester. Applications are available from the Department of Education website.

**Block 1 (12 cr)**

Application to the blocks can only be completed spring semester for fall semester admission. All courses must be taken concurrently. Consult advisor for additional upper division science course.

EDSE 4204 - Designing Learning Environments and Lessons (3.0 cr)  
EDSE 4100 - Teaching in a Diverse Society (3.0 cr)  
EDSE 4501 - Adolescent/Adult Development and Learning Theory (3.0 cr)  
SPED 3415 - Special Education in the Secondary School (3.0 cr)

**Block 2 (15 cr)**

All courses must be taken concurrently. Application for student teaching must be made by the 4th Friday of the semester before student teaching. Applications are available from the Department of Education website. EDSE 4255 and GEOL 4110 offered spring only. Consult advisor for additional upper division science course.

EDSE 3206 - Apprenticeship: Secondary School (2.0 cr)  
EDSE 4214 - Teaching Content-Area Reading (2.0 cr)  
EDSE 4255 - Teaching Science: Grades 5-12 (3.0 cr)  
EDUC 4381 - Teaching Indigenous Students (3.0 cr)  
EDUC 4110 - Advanced Earth Science for Teachers (2.0 cr)  
EDSE 4525 - Assessment for Secondary Education (3.0 cr)

**Block 3 (13 cr)**

All courses must be taken concurrently. Registration for student teaching in the senior year requires grades of C- or better in all courses in the teaching major(s) and minor; graded completion of all education block courses; completion of at least 85% of teaching major courses. Students must have personal liability insurance while they are working in field placement settings. EDSE 4600 register for 12 credits.

EDSE 4600 - Student Teaching (3.0 - 12.0 cr)  
EDUC 4500 - Professional Issues and Ethics (1.0 cr)

## Duluth Campus

# Teaching Social Studies B.A.A.

Education

## College of Education and Human Service Professions

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 123 to 129
- Required credits within the major: 110 to 112
- Degree: Bachelor of Applied Arts

The BAA in teaching social studies prepares students to teach grades 5 through 12. Social studies is an interdisciplinary major that requires lower division coursework in each of eight areas: anthropology, economics, geography, history, political science, psychology, sociology, and women's studies. Students then select one of these areas in which to complete an upper division emphasis. Students complete additional coursework in education.

## Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

## Admission Requirements

Students must complete 45 credits before admission to the program.

Freshman and transfer students are usually admitted to pre-major status before admission to this major

A GPA above 2.0 is preferred for the following:

- 2.50 already admitted to the degree-granting college
- 2.50 transferring from another University of Minnesota college
- 2.50 transferring from outside the University

Students entering the secondary and K-12 licensure programs are bound by the policies in effect at the time of application; admission is based on criteria established by the Dept. of Education, consistent with MN policies as established by the Council for the Accreditation of Education Preparation (CAEP). Students must 1)complete EDUC 1101 2)GPA of at least 2.50 cumulative including transfer work & in major courses completed at time of application 3)take the MTLE Basic Skills Test for licensure or have passing scores on the ACT Plus Writing or SAT Exam 4)minimum 30 documented hours working with students in grades 5-12 5)minimum of 1 letter of recommendation 6)receive a C- or better in all required courses for the major. Students must submit a letter of application, resume, letters of recommendation and their APAS report. There are alternatives to the admission procedures to encourage the participation of individuals from underrepresented groups and students as determined by the dept.

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

### Required prerequisites

#### Introductory Course (1 cr)

This course will be waived for transfer students or students who change colleges from a college where it is not required.

Register course for one credit.

[UST 1000](#) - UMD Seminar (1.0 - 2.0 cr)

#### Admissions Requirement (3 cr)

[EDUC 1101](#) - Education in Modern Society [LE CAT7, HUMANITIES] (3.0 cr)

## General Requirements

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).

3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

## Program Requirements

1. Compliance with general regulations governing granting of degrees. Students are required to review their degree status in the CEHSP Advising & Academic Services Office early in their senior year.
2. Degree candidates must complete at least 20 of the last 30 degree credits immediately before graduation at University of Minnesota, Duluth.
3. Make satisfactory academic progress and demonstrate acceptable professional performance in field experiences.
4. Students are expected to: a) make satisfactory progress each semester, including grades of C- or better in all courses required in the major; b) demonstrate acceptable professional performance in applied learning settings (e.g., laboratory, field experiences, clinical experiences); and c) obtain an approved background check before being placed in clinical, field, intern, or student teaching experiences. Students who do not meet program expectations can be dismissed from the major. Details on these requirements are available from the department office.

### Lower Division Requirements (36 cr)

#### Anthropology

- [ANTH 1602](#) - Biological Anthropology and Archaeology [LE CAT7, LEIP CAT07, SOC SCI] (4.0 cr)
- or [ANTH 1604](#) - Cultural Anthropology [LE CAT6, LEIP CAT06, SOC SCI, GLOBAL PER] (4.0 cr)

#### Economics

- [ECON 1003](#) - Economics and Society [LE CAT8, SOC SCI] (3.0 cr)
- or [ECON 1022](#) - Principles of Economics: Macro [LE CAT6, SOC SCI] (3.0 cr)
- or [ECON 1023](#) - Principles of Economics: Micro [LE CAT6, SOC SCI] (3.0 cr)

#### Geography

- [GEOG 1414](#) - Physical Geography [LE CAT4, NAT SCI, SUSTAIN] (4.0 cr)
- [GEOG 1202](#) - World Regional Geography [LE CAT8, LEIP CAT08, GLOBAL PER] (3.0 cr)
- or [GEOG 1304](#) - Human Geography [LE CAT6, LECD CAT06, SOC SCI] (3.0 cr)

#### History

- [HIST 1207](#) - Dawn of Modern Europe [LE CAT7, HUMANITIES] (4.0 cr)
- or [HIST 1208](#) - Europe in the Modern Age [LE CAT7, HUMANITIES] (4.0 cr)
- [HIST 1304](#) - US History Part I: 1607-1877 [LE CAT7, HUMANITIES] (4.0 cr)
- or [HIST 1305](#) - US History Part II: 1865-Present [LE CAT7, HUMANITIES] (4.0 cr)

#### Political Science

- [POL 1011](#) - American Government and Politics [LE CAT6, SOC SCI] (3.0 cr)
- [POL 1050](#) - International Relations [LE CAT8, LEIP CAT08, GLOBAL PER] (3.0 cr)
- or [POL 1500](#) - Introduction to Comparative Politics [LE CAT6, LEIP CAT06, GLOBAL PER] (3.0 cr)
- or [POL 1610](#) - Introduction to Political Theory [LE CAT7, HUMANITIES] (3.0 cr)

#### Psychology

- [PSY 1003](#) - General Psychology [LE CAT6, SOC SCI] (4.0 cr)

#### Sociology

- [SOC 1101](#) - Introduction to Sociology [LE CAT6, LECD CAT06, SOC SCI, CDIVERSITY] (4.0 cr)

### Upper Division Requirements (12 cr)

- [EDUC 3412](#) - The Computer in Education (4.0 cr)
- [EDUC 4234](#) - Science, Technology, and Society [SUSTAIN] (3.0 cr)
- [HLTH 3202](#) - Drug Education (2.0 cr)
- [WRIT 3140](#) - Advanced Writing: Human Services (3.0 cr)
- or [WRIT 3160](#) - Advanced Writing: Social Sciences (3.0 cr)

### Non-Western History Requirement (3 - 4 cr)

This requirement is not required for the History sub-plan.

Take 1 or more course(s) totaling 3 or more credit(s) from the following:

- AMIN 2015 - Ojibwe History and Culture [SUSTAIN] (3.0 cr)
- HIST 1400 - Modern World History from 1500 to present [LE CAT7, LEIP CAT07, HUMANITIES] (4.0 cr)
- HIST 2405 - History of Chinese Culture (4.0 cr)
- HIST 2410 - Modern China, Japan, Korea, Vietnam and East Asia (4.0 cr)
- HIST 2515 - Precolonial Africa [LE CAT7, LECD CAT07, HUMANITIES] (4.0 cr)
- HIST 3463 - History of Modern China (4.0 cr)
- HIST 3465 - Twentieth Century China Politics (4.0 cr)
- HIST 3616 - Society and Culture in 20th-Century Africa (4.0 cr)
- HIST 3726 - Modern Middle East: 18th Century-Present (4.0 cr)
- HIST 4727 - Middle Eastern History Through Film [LEIP CAT07] (4.0 cr)
- POL 3570 - Politics of Developing Nations (3.0 cr)
- SPAN 2540 - Latino Literatures and Cultures [LE CAT8, LECD CAT08, HUMANITIES, CDIVERSITY] (4.0 cr)

### Block Requirements (38 cr)

Application for admission to the blocks must be submitted by the 6th Friday of the spring semester. Applications are available from the Department of Education website. Application for admission must be completed spring semester for fall entry.

#### Block 1 (12 cr)

All courses must be taken concurrently.

- EDSE 4204 - Designing Learning Environments and Lessons (3.0 cr)
- EDSE 4100 - Teaching in a Diverse Society (3.0 cr)
- EDSE 4501 - Adolescent/Adult Development and Learning Theory (3.0 cr)
- SPED 3415 - Special Education in the Secondary School (3.0 cr)

#### Block 2 (13 cr)

All courses must be taken concurrently. Application for student teaching must be made by the 4th Friday of the semester before student teaching. Applications are available from the Department of Education website.

- EDSE 3206 - Apprenticeship: Secondary School (2.0 cr)
- EDSE 4214 - Teaching Content-Area Reading (2.0 cr)
- EDSE 4244 - Teaching Social Studies: Grades 5-12 (3.0 cr)
- EDSE 4525 - Assessment for Secondary Education (3.0 cr)
- EDUC 4381 - Teaching Indigenous Students (3.0 cr)

#### Block 3 (13 cr)

All courses must be taken concurrently. Registration for student teaching in the senior year requires grades of C- or better in all courses in teaching major(s) and minor; graded completion of all education block courses; completion of at least 85% of teaching major courses. Students must have personal liability insurance while they are working in field placement settings. EDSE 4600 - register for 12 credits.

- EDSE 4600 - Student Teaching (3.0 - 12.0 cr)
- EDUC 4500 - Professional Issues and Ethics (1.0 cr)

## Program Sub-plans

Students are required to complete one of the following sub-plans.

### Anthropology

#### Anthropology Sub-Plan (18 cr)

Students who select this sub-plan must take both ANTH 1602 and 1604; one course will count under the lower division anthropology requirement and the other will count toward the sub-plan requirement.

- ANTH 1602 - Biological Anthropology and Archaeology [LE CAT7, LEIP CAT07, SOC SCI] (4.0 cr)  
or ANTH 1604 - Cultural Anthropology [LE CAT6, LEIP CAT06, SOC SCI, GLOBAL PER] (4.0 cr)
- SOC 3156 - Qualitative Research Methods and Analysis (4.0 cr)

Take 10 or more credit(s) from the following:

- ANTH 3xxx
- ANTH 4xxx

### Economics

Students with an economics concentration must take ECON 1003 as their lower division ECON course. ECON 1022 or ECON 1023 cannot count as a lower division course and count toward the concentration.

#### Economics Sub-plan (18 cr)

- ECON 1022 - Principles of Economics: Macro [LE CAT6, SOC SCI] (3.0 cr)
- ECON 1023 - Principles of Economics: Micro [LE CAT6, SOC SCI] (3.0 cr)

#### Statistics

- ECON 2030 - Applied Statistics for Business and Economics [LOGIC & QR] (3.0 cr)

- or [PSY 3020](#) - Statistical Methods (4.0 cr)  
 or [SOC 3155](#) - Quantitative Research Methods and Analysis (4.0 cr)  
 or [STAT 1411](#) - Introduction to Statistics [LE CAT2, LOGIC & QR] (3.0 cr)  
 or [STAT 3611](#) - Introduction to Probability and Statistics (4.0 cr)

**Upper Division**

- [ECON 3022](#) - Intermediate Macroeconomics (3.0 cr)  
 or [ECON 3023](#) - Intermediate Microeconomics (3.0 cr)  
 or [ECON 3402](#) - Global Economic Issues (3.0 cr)

ECON courses 3xxx or higher so total equals minimum 18 credits.

Take 5 or more credit(s) from the following:

- ECON 3xxx
- ECON 4xxx

**Geography**

**Geography Sub-Plan (18 cr)**

Students who select this sub-plan must take GEOG 1304 and 1414 as their lower division GEOG courses.

- [GEOG 2552](#) - Introduction to Maps and Geospatial Information [LE CAT2, LOGIC & QR] (3.0 cr)  
[GEOG 3532](#) - Map Design and Geographic Visualization (4.0 cr)  
[GEOG 4612](#) - Field Techniques (4.0 cr)

Take 7 or more credit(s) from the following:

- GEOG 3xxx
- GEOG 4xxx
- GEOG 5xxx

**History**

Take no more than 8 credits in any one sub-requirement group. Non-western history requirement is not required for the History sub-plan.

**History Sub-plan (20 cr)**

Other electives may be approved.

Take 20 or more credit(s) from the following:

**Subrequirement I : United States History**

Take 1 or more course(s) totaling 4 - 8 credit(s) from the following:

- [HIST 3310](#) - Colonial America: The American Revolution (4.0 cr)
- [HIST 3318](#) - Slavery, Lincoln and the Civil War (4.0 cr)
- [HIST 3320](#) - American Popular Culture, 1929 to the Present (4.0 cr)
- [HIST 3346](#) - History of Hollywood (4.0 cr)
- [HIST 3386](#) - The United States and the World since 1898 (4.0 cr)
- [HIST 3396](#) - The Vietnam War (4.0 cr)

**Subrequirement II: European History**

Take 1 or more course(s) totaling 4 - 8 credit(s) from the following:

- [HIST 2345](#) - Science and Society: 1500 to Present [LE CAT7, HUMANITIES] (4.0 cr)
- [HIST 2365](#) - Russia in the 20th Century [LE CAT7, LEIP CAT07, GLOBAL PER] (4.0 cr)
- [HIST 3107](#) - The World of Late Antiquity: From Constantine to Justinian (4.0 cr)
- [HIST 3121](#) - The Age of the Heroes: Homer and his World (4.0 cr)
- [HIST 3131](#) - The Roman Republic (4.0 cr)
- [HIST 3133](#) - Ancient Greece from Homer to Alexander (4.0 cr)
- [HIST 3141](#) - Ancient Rome: From Republic to Empire (4.0 cr)
- [HIST 3243](#) - Europe in Crisis in the 20th Century (4.0 cr)
- [HIST 3244](#) - History of Holocaust (4.0 cr)
- [HIST 3257](#) - Modern France (4.0 cr)
- [HIST 3264](#) - Imperial Russia (4.0 cr)
- [HIST 3939](#) - Europe in the Age of Renaissance and Reformation: 1348-1648 (4.0 cr)
- [HIST 3940](#) - Early Modern England: 1485-1689 (4.0 cr)

**Subrequirement III: Asian, African, Non-U.S., Non-European**

Take 1 or more course(s) totaling 4 - 8 credit(s) from the following:

- [HIST 2325](#) - Muslim Societies [LE CAT7, LEIP CAT07] (4.0 cr)
- [HIST 2405](#) - History of Chinese Culture (4.0 cr)
- [HIST 2410](#) - Modern China, Japan, Korea, Vietnam and East Asia (4.0 cr)
- [HIST 2515](#) - Precolonial Africa [LE CAT7, LECD CAT07, HUMANITIES] (4.0 cr)
- [HIST 3035](#) - Ancient Warfare From Alexander to Mohammad (4.0 cr)
- [HIST 3055](#) - The Bible & Ancient Near East (4.0 cr)
- [HIST 3463](#) - History of Modern China (4.0 cr)
- [HIST 3465](#) - Twentieth Century China Politics (4.0 cr)
- [HIST 3615](#) - Modern Africa (4.0 cr)

- HIST 3616 - Society and Culture in 20th-Century Africa (4.0 cr)
- HIST 3726 - Modern Middle East: 18th Century-Present (4.0 cr)
- HIST 3825 - Islamic History from Muhammad to the Ottomans (4.0 cr)
- HIST 4727 - Middle Eastern History Through Film [LEIP CAT07] (4.0 cr)

•**Special Topics**

Requires advisor prior approval for intended category.

Take 0 - 2 course(s) from the following:

- HIST 3095 - Special Topics: (Various Titles to be Assigned) (3.0 cr)

**Political Science**

**Political Science Sub-Plan (18 cr)**

Take 18 or more credit(s) from the following:

**Category I: United States Politics**

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

- POL 3001 - American Public Policy (3.0 cr)
- POL 3015 - State and Local Government (4.0 cr)
- POL 3040 - Women and Politics (3.0 cr)
- POL 3080 - Environment and Politics (3.0 cr)
- POL 3120 - Congress and the Presidency (4.0 cr)
- POL 3150 - American Constitutional Law I (4.0 cr)
- POL 3151 - American Constitutional Law II (4.0 cr)
- POL 3170 - Political Interest Groups and Individuals (3.0 cr)

•**Category II: International Politics**

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

- POL 3400 - Contemporary Issues in World Politics (4.0 cr)
- POL 3403 - American Foreign Policy (3.0 cr)
- POL 3420 - International Organization and Global Governance (3.0 cr)

•**Category III: Comparative Politics**

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

- POL 3511 - Politics of South Asia (4.0 cr)
- POL 3515 - Theories of Comparative Politics (4.0 cr)
- POL 3517 - Western European Political Systems (4.0 cr)
- POL 3518 - Transitional Politics of Asia (3.0 cr)
- POL 3525 - African Politics (3.0 cr)
- POL 3570 - Politics of Developing Nations (3.0 cr)
- POL 3580 - Central American Politics (4.0 cr)

•**Category IV: Political Theory**

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

- POL 3600 - Political Concepts (4.0 cr)
- POL 3610 - Political Economy: An Introduction (4.0 cr)
- POL 3651 - Classical Political Thought (4.0 cr)
- POL 3652 - Modern Political Thought (4.0 cr)

**Psychology**

**Psychology Sub-Plan (18 cr)**

Students who select the psychology sub plan follow the guidelines for the psychology minor. Note PSY 1003 counts under the TSS upper division credits and the sub plan credits. EDSE 4501 credits count as an elective course in the psychology minor. Students who select the psychology sub plan should register with the psychology department as a psychology minor.

Take 18 or more credit(s) from the following:

**Psychology minor course**

- CSD 4000 - Introductory Statistics for the Behavioral Sciences (3.0 cr)
- or ECON 2030 - Applied Statistics for Business and Economics [LOGIC & QR] (3.0 cr)
- or ESAT 4700 - Statistics and Research Methods in Exercise Science (4.0 cr)
- or PSY 2020 - Introduction to Statistics and Research Methods (3.0 cr)
- or PSY 3020 - Statistical Methods (4.0 cr)
- or SOC 2155 - Introduction to Research Methods and Analysis (4.0 cr)
- or STAT 2411 - Statistical Methods [LE CAT2, LOGIC & QR] (3.0 cr)
- or Other approved course

•**Group I**

- PSY 2021 - Developmental Psychology [LE CAT6, LECD CAT06, SOC SCI, CDIVERSITY] (4.0 cr)
- or PSY 3081 - History and Systems of Psychology (3.0 cr)
- or PSY 3111 - Theories of Personality (3.0 cr)
- or PSY 3121 - Abnormal Psychology (4.0 cr)
- or PSY 3201 - Social Psychology (3.0 cr)

•**Group II**

- PSY 3061 - Physiological Psychology (4.0 cr)
- or PSY 3611 - Learning and Behavior (4.0 cr)
- or PSY 3613 - Applied Behavior Analysis and Behavior Change (4.0 cr)
- or PSY 3621 - Cognition (4.0 cr)
- or PSY 3697 - Sensation and Perception (4.0 cr)

•**Psychology Elective Courses**

PSY courses 2xxx or higher so total equals minimum 18 credits.

Take 8 or more credit(s) from the following:

- PSY 2xxx
- PSY 3xxx
- PSY 4xxx
- EDSE 4501 - Adolescent/Adult Development and Learning Theory (3.0 cr)

**Sociology**

**Sociology Sub-Plan (18 cr)**

- SOC 2155 - Introduction to Research Methods and Analysis (4.0 cr)
- SOC 3945 - Social Stratification (3.0 cr)
- SOC 4111 - Sociological Theory (4.0 cr)

Take 7 or more credit(s) from the following:

- SOC 3xxx
- SOC 4xxx

**Women's Studies**

**Women's Studies Sub-Plan (18 cr)**

- WS 2001 - Introduction to Lesbian Gay Bisexual and Transgender Studies [LE CAT8, LECD CAT08, CDIVERSITY] (4.0 cr)

**Electives (14 cr)**

Take 14 or more credit(s) from the following:

**Women's Studies**

Take 6 or more credit(s) from the following:

- WS 3000 - Transnational Perspectives on Feminism [SOC SCI, GLOBAL PER] (3.0 cr)
- WS 3001 - Gender Relations in the Global South [GLOBAL PER] (3.0 cr)
- WS 3002 - Latin American Women: Culture and Politics (3.0 cr)
- WS 3100 - Feminist Thought [HUMANITIES, CDIVERSITY] (4.0 cr)
- WS 3150 - Women-Identified Culture [CDIVERSITY] (3.0 cr)
- WS 3200 - Women's Autobiographies [GLOBAL PER] (3.0 cr)
- WS 3250 - Women, Peace and War [GLOBAL PER] (3.0 cr)
- WS 3300 - Women and Spirituality [HUMANITIES, CDIVERSITY] (3.0 cr)
- WS 3350 - Women and the Law [CDIVERSITY] (3.0 cr)
- WS 3400 - Women and Film [GLOBAL PER] (3.0 cr)
- WS 3595 - Special Topics: (Various Titles to be Assigned) (1.0 - 4.0 cr)
- WS 3600 - Ecofeminism: Theories and Sustainable Practices [SUSTAIN] (3.0 cr)
- WS 3750 - Voices of African Women [GLOBAL PER] (3.0 cr)
- WS 3775 - Gender, Globalization and Food [SUSTAIN] (3.0 cr)
- WS 3800 - Feminist Activism and Community Organizing (4.0 cr)

•**Women's Studies Related Courses**

Take 6 or more credit(s) from the following:

- AMIN 3450 - American Indian Women [CDIVERSITY] (3.0 cr)
- ANTH 3080 - Cultural Constructions of the Body (4.0 cr)
- ANTH 3628 - Women in Cross-Cultural Perspective (3.0 cr)
- ARTH 2815 - Women Artists in History [LE CAT9, LECD CAT09, FINE ARTS] (3.0 cr)
- CRIM 4323 - Women and Justice (3.0 cr)
- ENGL 2581 - Women Writers [LE CAT9, LECD CAT09, HUMANITIES] (4.0 cr)
- HLTH 3118 - Women's Health Issues (3.0 cr)
- POL 3040 - Women and Politics (3.0 cr)
- PSY 2223 - Gender in Society [LE CAT8, LECD CAT08, CDIVERSITY] (4.0 cr)
- PSY 3215 - Topics in Human Sexuality (3.0 cr)
- SOC 4925 - Sociology of Rape (3.0 cr)
- SOC 4947 - Sociology of Gender Identities and Systems (3.0 cr)
- LGBT 3000 - Queer Theory (3.0 cr)
- LGBT 3151 - Queer Cinema in International Perspective [GLOBAL PER] (3.0 cr)
- LGBT 3152 - History of the International Homosexual Rights Movement (1895 - present) [GLOBAL PER] (3.0 cr)
- LGBT 3153 - Queer Media [CDIVERSITY] (3.0 cr)

### **Duluth Campus**

## **Teaching Spanish B.A.A.**

*Education, Foreign Languages & Literatures*

### **College of Education and Human Service Professions**

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 123
- Required credits within the major: 73 to 93
- Degree: Bachelor of Applied Arts

The B.A.A. in teaching Spanish is offered through the Department of Education, in conjunction with the Department of Foreign Languages and Literatures.

This major prepares students to teach Spanish from kindergarten through grade twelve.

Students pursuing both the B.A. and B.A.A. degrees in Hispanic Studies or Latin American Area Studies must satisfactorily complete 12 non-overlapping upper division credits of Spanish electives beyond the requirements for both degrees.

### **Program Delivery**

This program is available:

- via classroom (the majority of instruction is face-to-face)

### **Admission Requirements**

Students must complete 45 credits before admission to the program.

Freshman and transfer students are usually admitted to pre-major status before admission to this major

A GPA above 2.0 is preferred for the following:

- 2.50 already admitted to the degree-granting college
- 2.50 transferring from another University of Minnesota college
- 2.50 transferring from outside the University

Students entering the secondary and K-12 licensure programs are bound by the policies in effect at the time of application; admission is based on criteria established by the Dept of Educ, consistent with MN policies as established by the National Council for Accreditation in Teacher Education Preparation (CAEP). Students must 1) complete EDUC 1101 2) GPA of at least 2.50 cumulative including transfer work & in major courses completed at time of application 3) take the MTLE Basic Skills Test for licensure or passing scores on ACT + Writing or SAT exam 4) minimum 30 documented hours working with students in grades 5-12 5) minimum 1 letter of reference 6) receive a C- or better in all required courses for the major. Students must submit a letter of application, resume, letters of recommendation & APAS report. There are alternatives to the admission procedures to encourage the participation of individuals from underrepresented groups and students as determined by the dept.

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

#### **Required prerequisites**

##### **Introductory Course (1 cr)**

This course will be waived for transfer students or students who change colleges from a college where it is not required.

Register course for one credit.

[UST 1000](#) - UMD Seminar (1.0 - 2.0 cr)

##### **Lower Division Requirements (3 - 23 cr)**

Students may be exempted from part of the core requirements if they have previously completed Spanish language coursework. The Dept of Foreign Languages and Literatures determines exemptions based on acceptance of transfer credits and work done in secondary school. Students with three years of high school Spanish enter the sequence at the intermediate Spanish level and are exempted from SPAN 1101-1102. Exemption does not necessarily carry credits toward the 120 credits needed for graduation.

[EDUC 1101](#) - Education in Modern Society [LE CAT7, HUMANITIES] (3.0 cr)

[SPAN 1101](#) - Beginning Spanish I [LE CAT3, COMM & LAN] (4.0 cr)

[SPAN 1102](#) - Beginning Spanish II [LE CAT3, COMM & LAN] (4.0 cr)

[SPAN 1201](#) - Intermediate Spanish I [LE CAT3, COMM & LAN] (4.0 cr)

[SPAN 1202](#) - Intermediate Spanish II [LE CAT3, LEIP CAT03, COMM & LAN] (4.0 cr)

[SPAN 2301](#) - Advanced Spanish [LE CAT3, LEIP CAT03, COMM & LAN] (4.0 cr)

## General Requirements

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

## Program Requirements

1. It is recommended students take LING 1811 for liberal education Logic and Quantitative Reasoning.
2. Compliance with general regulations governing granting of degrees. Students are required to review their degree status in the CEHSP Advising & Academic Services Office early in their senior year.
3. Study abroad is essential for success in learning Spanish.
4. Program completers must pass all tests required by the MN Board of Teaching to be recommended for licensure.
5. Students are expected to: a) make satisfactory progress each semester, including grades of C- or better in all courses required in the major; b) demonstrate acceptable professional performance in applied learning settings (e.g., laboratory, field experiences, clinical experiences); and c) obtain an approved background check before being placed in clinical, field, intern, or student teaching experiences. Students who do not meet program expectations can be dismissed from the major. Details on these requirements are available from the department office.

### Upper Division Requirements (29 cr)

Some of the upper division Spanish courses may be transferred from another college or earned abroad, but at least two courses must be taken at University of Minnesota, Duluth. By the second semester of the sophomore year, students start upper division major courses and plan for application to the secondary teacher education program (STEP). EDUC 3412 register for 4 credits.

[EDUC 3412](#) - The Computer in Education (4.0 cr)

[HLTH 3202](#) - Drug Education (2.0 cr)

[WRIT 3140](#) - Advanced Writing: Human Services (3.0 cr)

### **SPAN 3xxx - 5xxx Including one culture course taught in Spanish**

Take 20 or more credit(s) from the following:

- [SPAN 3042](#) - Hispanic American Civilization and Culture [HUMANITIES, GLOBAL PER] (4.0 cr)
- [SPAN 3044](#) - Civilization, Cultures and Communities of Spain [HUMANITIES, GLOBAL PER] (4.0 cr)
- [SPAN 4011](#) - Hispanic American Prose [HUMANITIES] (4.0 cr)
- [SPAN 4013](#) - Hispanic American Poetry and Drama [HUMANITIES] (4.0 cr)
- [SPAN 4018](#) - Hispanic America From Within [HUMANITIES] (4.0 cr)
- [SPAN 4022](#) - Medieval and Golden Age Literature and Culture of Spain [HUMANITIES] (4.0 cr)
- [SPAN 4027](#) - Contemporary Literature and Culture of Spain [HUMANITIES] (4.0 cr)
- [SPAN 4090](#) - Aspects of the Hispanic World [HUMANITIES] (4.0 cr)

### Student Teaching

Registration for student teaching in the senior year requires: grades of C- or better in all courses in the teaching major(s) and minor(s); completion (graded) of all education block courses, including EDUC 4040; completion of at least 85 percent of teaching major courses; having passed the oral proficiency exam and permission from faculty in the foreign languages program.



Must have personal liability insurance while working in field placement settings.

**Block Requirements (40 cr)**

Application for admission to the blocks is preferred to be completed spring semester for fall semester admission. Application for admission to the blocks must be submitted by the sixth Friday of the semester. Applications are available from the Department of Education website.

**Block 1 (12 cr)**

All courses must be taken concurrently. Consult adviser for additional upper division Spanish course.

[EDSE 4204](#) - Designing Learning Environments and Lessons (3.0 cr)

[EDSE 4100](#) - Teaching in a Diverse Society (3.0 cr)

[EDSE 4501](#) - Adolescent/Adult Development and Learning Theory (3.0 cr)

[SPED 3415](#) - Special Education in the Secondary School (3.0 cr)

**Block 2 (14 cr)**

All courses must be taken concurrently. Application for student teaching must be made by the fourth Friday of the semester before student teaching. Applications are available from the Department of Education website. Consult adviser for additional upper division Spanish course. Oral Proficiency Exam must be completed prior to student teaching.

[EDSE 3206](#) - Apprenticeship: Secondary School (2.0 cr)

[EDSE 4214](#) - Teaching Content-Area Reading (2.0 cr)

[EDSE 4525](#) - Assessment for Secondary Education (3.0 cr)

[EDUC 4381](#) - Teaching Indigenous Students (3.0 cr)

[EDUC 4040](#) - World Language Teaching Methods (4.0 cr)

**Block 3 (13 cr)**

All courses must be taken concurrently. Registration for student teaching in the senior year requires; grades of C- or better in all courses in the teaching major(s) and minor(s); completion (graded) of all education block courses; completion of oral proficiency exam, and completion of at least 85 percent of teaching major courses. Students must have personal liability insurance while they are working in field placement settings.

[EDSE 4600](#) - Student Teaching (3.0 - 12.0 cr)

[EDUC 4500](#) - Professional Issues and Ethics (1.0 cr)

**Exit Standards**

Students must successfully complete an oral proficiency exam administered by the Department of Foreign Languages and Literatures before student teaching.

## Duluth Campus

# Unified Early Childhood Studies B.A.Sc.

Education

## College of Education and Human Service Professions

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 134 to 135
- Required credits within the major: 109 to 110
- This program requires summer terms.
- Mesabi Range Community and Technical College, Virginia, MN. A collaboration between MRCTC and UMD resulted in the creation of several lower division courses at Mesabi designed to meet identified licensure standards and to transfer to UMD. Students interested in early childhood licensure were advised to take these courses as electives in the MRCTC's Associate of Arts curriculum. These students are now eligible to apply for admission to the UMD licensure program. The intent of the plan for off-site delivery was to provide a program in the communities in which the students lived, where they wanted to eventually work, and where the early childhood teachers are needed. The courses would be partially internet delivered to provide flexibility in the delivery of the program, and to ease access constraints for students who would commute from Iron Range communities other than Virginia. The combined face-to-face and online model limits enrollment to UMD's traditional service region.
- Degree: Bachelor of Applied Science

The unified early childhood studies program and licensures include interdisciplinary curricula that prepare students for work in a variety of settings with children of diverse ability levels, from birth through age eight.

Graduates find employment in public schools, community and private preschool programs, early primary grades in elementary schools, programs for children ages birth through six with identified disabilities or delays, home and center-based child care, and Head Start programs.

All students complete a common core of courses in child development, parent-child relations, early childhood curriculum and programming, early childhood special education, community resources, and educational leadership and program administration.

The unified early childhood studies major leads to Minnesota licensure in early childhood education (birth through grade three) and early childhood special education. International student teaching placements are available.

## Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

## Admission Requirements

Students must complete 54 credits before admission to the program.

Freshman and transfer students are usually admitted to pre-major status before admission to this major

A GPA above 2.0 is preferred for the following:

- 2.70 already admitted to the degree-granting college
- 2.70 transferring from another University of Minnesota college
- 2.70 transferring from outside the University

Students admitted as pre-unified early childhood (UECH) majors must apply for candidacy after completion of required lower division courses. The number of students admitted is based on availability of suitable programs for practicum experience. Students entering UECH programs are bound by the policies in effect at the time of application; admission is based on criteria established by the Dept of Educ, consistent with MN policies established by the Council for the Accreditation of Educ Prep (CAEP). Candidates selected on minimum GPA 2.70 cumulative & transfer, personal written statement, MTLE Basic Skills Test for licensure or passing scores on ACT + Writing or SAT Exam, demonstrated commitment to working with children, 3 letters from professional who have observed student working with children, minimum supervised 60 hour past 2 yrs, C- or better in major required courses. Students apply fall of their sophomore year; transfer students may be admitted with advanced standing.

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

## Required prerequisites

### Introductory Course (1 cr)

This course will be waived for transfer students or students who change colleges from a college where it is not required.

Register course for one credit.

[UST 1000](#) - UMD Seminar (1.0 - 2.0 cr)

#### Lower Division (21 - 22 cr)

[ECH 2010](#) - Foundational Issues in Early Childhood Studies (3.0 cr)

[ECH 2015](#) - Literature for Young Children (3.0 cr)

[ECH 2025](#) - Educating the Human Brain [SOC SCI] (3.0 cr)

[EDUC 1100](#) - Human Diversity [LE CAT8, LECD CAT08, CDIVERSITY] (3.0 cr)

[EDUC 1101](#) - Education in Modern Society [LE CAT7, HUMANITIES] (3.0 cr)

[EDUC 1000](#) - Human Development (3.0 cr)

or [PSY 2021](#) - Developmental Psychology [LE CAT6, LECD CAT06, SOC SCI, CDIVERSITY] (4.0 cr)

[SOC 1201](#) - Sociology of the Family [LE CAT8, LECD CAT08, SOC SCI, CDIVERSITY] (3.0 cr)

or [EDUC 3340](#) - Interacting with Diverse Families (3.0 cr)

## General Requirements

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

## Program Requirements

1. Compliance with general regulations governing granting of degrees. Students are required to review their degree status in the CEHSP Advising & Academic Services Office early in their senior year.
2. Recommendations for licensure are based on successful completion of all program-related courses; demonstration of satisfactory outcomes required by the program; acceptable performance in field experiences, including student teaching; and successful completion of all tests required by the Board of Teaching.
3. Students must obtain personal liability insurance while working in programs.
4. Students are expected to: a) make satisfactory progress each semester, including grades of C- or better in all courses required in the major; b) demonstrate acceptable professional performance in applied learning settings (e.g., laboratory, field experiences, clinical experiences); c) obtain an approved background check before being placed in clinical, field, intern, or student teaching experiences; and d) mandatory advising with a UECH faculty advisor. Students who do not meet program expectations can be dismissed from the major. Details on these requirements are available from the department office.

#### Upper Division Requirements (11 cr)

[CSD 3130](#) - Language Development and Disorders (4.0 cr)

[EDUC 2000](#) - Technology for Teaching and Learning (3.0 cr)

[SPED 4433](#) - Foundations in Special Education (4.0 cr)

#### Advanced Writing Requirement (3 cr)

[WRIT 3140](#) - Advanced Writing: Human Services (3.0 cr)

or [WRIT 3150](#) - Advanced Writing: Science (3.0 cr)



#### **Block 1 (14 cr)**

All courses must be taken concurrently. ECH 4400 is taken in both Block 1 and Block 3 for a total of 2 credits.

- [ECH 3050](#) - Observing Early Relationships in Infants and Toddlers (4.0 cr)
- [ECH 3055](#) - Creative Expressions and Emergent Literacy: Birth - Age 8 (4.0 cr)
- [ECH 3104](#) - Family Partnerships (1.0 cr)
- [ECH 4400](#) - Professional Development Seminar (1.0 cr)
- [SPED 3103](#) - Infants and Toddlers with Special Needs (4.0 cr)

#### **Block 2 (15 cr)**

All courses must be taken concurrently.

- [ECH 4010](#) - Infant and Early Childhood Perceptual and Psychomotor Development (2.0 cr)
- [SPED 3105](#) - Young Children with Special Needs: Ages Three-Eight (4.0 cr)
- [SPED 3106](#) - Working with Young Children with Low Incidence Disabilities (4.0 cr)
- [SPED 3109](#) - Supporting Social/Emotional Development Birth-8 (3.0 cr)
- [SPED 3205](#) - Foundations in Early Childhood Assessment (2.0 cr)

#### **Block 3 (19 cr)**

All courses must be taken concurrently. ECH 4400 is taken in both Block 1 and Block 3 for a total of 2 credits.

- [ECH 3021](#) - Teaching Mathematics: Birth-Age Eight (4.0 cr)
- [ECH 3022](#) - Literacy for Young Children: Teaching Reading, Writing, Speaking, and Listening (4.0 cr)
- [ECH 3030](#) - Inquiry, Social Studies, and Science Learning: Birth-Age Eight (5.0 cr)
- [ECH 3060](#) - Teaching Culturally and Linguistically Diverse Children (3.0 cr)
- [ECH 4400](#) - Professional Development Seminar (1.0 cr)
- [IESE 3326](#) - Advanced Literacy & Language: Designing & Implementing a Comprehensive Literacy Program (2.0 cr)

#### **Block 4 (12 cr)**

All courses must be taken concurrently. Application for student teaching must be made by the 4th Friday of the semester before student teaching. Applications are available from the Dept of Educ website. Incompletes must be cleared before filing application. Students must have grades of C- or better in all required courses in the major to be eligible for student teaching. ECH 4600 register for 9 credits.

- [ECH 4600](#) - Student Teaching in Early Childhood/Primary (3.0 - 12.0 cr)
- [ECH 4610](#) - Professional Issues Seminar in Early Childhood Education (1.0 cr)
- [SPED 3206](#) - Methods of Assessment in Early Childhood Special Education (2.0 cr)

#### **Block 5 (13 cr)**

All courses must be taken concurrently. SPED 4600 register for 9 credits.

- [ECH 4009](#) - Leadership in Early Childhood Studies (3.0 cr)
- [SPED 4600](#) - Student Teaching (1.0 - 12.0 cr)
- [SPED 4610](#) - Professional Issues (1.0 cr)

## **Program Sub-plans**

A sub-plan is not required for this program.

### **Virginia**

The requirements for the program at Mesabi Range Community and Technical College (MRCTC) are the same as the UMD on-campus degree. Students are admitted with an associate degree or courses that transfer to UMD's liberal education program. A UMD faculty member is assigned as a cohort adviser and travels to MRCTC at least once a semester; other advising is accomplished via e-mail.

## Duluth Campus

### Art B.A.

UMD Art and Design, Dept of

#### School of Fine Arts

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 120
- Required credits within the major: 59
- Degree: Bachelor of Arts

The B.A. in Art provides study in art with an emphasis on liberal education. Along with the courses required within the major, students must select a minor or second major appropriate for their academic goals.

Honor Requirements: Candidates, nominated by art and design department faculty, receive honors for distinguished achievement demonstrated in part by the senior student exhibition or a senior presentation or project.

### Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

### Admission Requirements

Freshman and transfer students are admitted to pre-major status before admission to this major. To qualify for this program, pre-art students must pass a portfolio review (ART 0902) after completing a minimum of 15 art studio credits selected from the required pre-art core requirements and studio electives. Additionally, students must have a minimum 2.00 GPA overall in art and design courses. The review is scheduled for fall and spring semesters and occurs approximately midway through the semester. Students must submit a portfolio of selected work derived from their art core courses. Portfolios are reviewed by studio art faculty. Specific guidelines for preparation of the portfolio contents and dates for review are distributed at the beginning of each semester.

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

### General Requirements

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

### Program Requirements

1. Minor or second major in another field of study.
2. Attendance at two visual lectures per semester (fall and spring).



### **SFA Additional Liberal Education Requirement (3 cr)**

Three credits of SFA Liberal Education courses from outside the student's chosen major (Dance, Fine Arts, Music or Theatre). MU 15xx ensembles must be repeated once each semester for a total of 3 credits (may require audition). A 2-credit DN course may be substituted (Art or Music students only).

### **Pre-Art Core Requirements (9 cr)**

ART 1010, 1011, 1012, and 1013 may be taken either semester of the first year; they are not sequential.

[ART 902](#) - Studio Art Portfolio Review (0.0 cr)

[ART 1010](#) - Drawing I (3.0 cr)

[ART 1012](#) - 3-D Design (3.0 cr)

[ART 1011](#) - 2-D Design (3.0 cr)

or [ART 1013](#) - 2-D Digital Design (3.0 cr)

### **Required Art Courses (19 cr)**

[ART 1900](#) - Visual Literacy [LE CAT9, FINE ARTS] (3.0 cr)

[ART 3700](#) - Drawing II (3.0 cr)

[ART 4812](#) - Senior Seminar (3.0 cr)

[ART 4898](#) - Art BA Senior Exhibition (1.0 cr)

[ARTH 1304](#) - History of World Art II [LE CAT9, LEIP CAT09, HUMANITIES] (3.0 cr)

[ARTH 2300](#) - The City as a Work of Art [LE CAT9, LEIP CAT09, HUMANITIES] (3.0 cr)

[ARTH 1303](#) - History of World Art I [LE CAT9, HUMANITIES, GLOBAL PER] (3.0 cr)

or [ARTH 1305](#) - Survey of Non-Western Art [HUMANITIES, GLOBAL PER] (3.0 cr)

### **Studio Electives (21 cr)**

Select four areas from the following plus three additional electives at 3xxx-4xxx.

Take 21 or more credit(s) from the following:

•[ART 2014](#) - 3-D Digital Studio I (3.0 cr)

•[ART 2016](#) - Digital Arts: Mixed-Media Studio (3.0 cr)

•[ART 2030](#) - Digital Arts: Time-based Media (3.0 cr)

•[ART 2040](#) - Digital Filmmaking: Visual Narratives (3.0 cr)

•[ART 2100](#) - Painting I (3.0 cr)

•[ART 2200](#) - Sculpture I (3.0 cr)

•[ART 2400](#) - Ceramics I (3.0 cr)

•[ART 2500](#) - Jewelry and Metals I (3.0 cr)

•[ART 2600](#) - Photography I (3.0 cr)

•[ART 2300](#) - Printmaking I: Intaglio, Relief (3.0 cr)

or [ART 2301](#) - Printmaking I: Litho, Screen (3.0 cr)

•Take 3 or more course(s) from the following:

•ART 3xxx

•ART 4xxx

### **Art History Elective (3 cr)**

Take exactly 3 credit(s) from the following:

•ARTH 2xxx

•ARTH 3xxx

•ARTH 4xxx

### **Courses From Other Programs (4 cr)**

[UST 1000](#) - UMD Seminar (1.0 - 2.0 cr)

#### **Advanced Writing**

[WRIT 3110](#) - Advanced Writing: Arts and Letters (3.0 cr)

or [WRIT 4230](#) - Web Design and Digital Culture (3.0 cr)

or [WRIT 4250](#) - New Media Writing (3.0 cr)

### **Duluth Campus**

## **Art Education K-12 B.F.A.**

*UMD Art and Design, Dept of, Education*

### **School of Fine Arts**

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 138
- Required credits within the major: 115 to 116
- Degree: Bachelor of Fine Arts

The B.F.A. program in art education K-12 is for students who wish to receive licensure to teach art in Minnesota; it is offered in cooperation with the College of Education and Human Service Professions (CEHSP). The program prepares art teachers for kindergarten through the twelfth grade and provides a foundation in a variety of studio areas, art history, and art education methods. To qualify for this program, pre-art education students must pass a portfolio review (ART 0903). In addition to completing liberal education and art courses, each student must gain admission to the Secondary Teacher Education Program (STEP) licensure program during the junior year to complete the education courses required by the State Department of Education and Board of Teaching.

Students entering the secondary and K-12 licensure programs are bound by the policies in effect at the time of application to the licensure program. Admission is based on criteria established by the Department of Education that are consistent with Minnesota policies, as well as standards established by the National Council for Accreditation in Teacher Education.

A student must have: 1) completed EDUC 1101; 2) a GPA of at least 2.50 overall and in major courses completed at the time of application; 3) taken the Minnesota Teacher Licensure Exam (MTLE) or have passing scores on the ACT Plus Writing or SAT exam; 4) minimum 30 documented hours working with students in grades 5 - 12; 5) minimum of 1 letter of recommendation; 6) receive a C- or better in all required courses for the major. Students must submit a letter of application, resume, letters of recommendation, and a copy of their Academic Progress Audit System (APAS) report.

There are alternatives to these established admission procedures to encourage the participation of individuals from underrepresented groups and other students as determined by the department.

Field experiences are an important part of the art education program and includes observations and participation in community, museum and elementary school programs; two apprenticeships in area public and/or private middle schools and high schools concluding with a full semester of supervised student teaching (8 weeks at the elementary and 8 weeks at the middle or high school level).

Students produce a body of work for the Senior Exhibition under the mentorship of faculty in their area.

### **Program Delivery**

This program is available:

- via classroom (the majority of instruction is face-to-face)

### **Admission Requirements**

Freshman and transfer students are usually admitted to pre-major status before admission to this major

Students must have completed at least 9 credits of art core pre-art education requirement courses during the first semester at UMD. The portfolio reviews occur twice a year during the 5th week of the semester. A mandatory information meeting takes place two weeks prior to the review. After successful completion of the art education portfolio review, students become art education majors.

The teacher licensure requirements are determined by the MN Board of Teaching. These requirements are subject to change without notice and may lead to course modifications in UMD's teaching programs. Changes in program requirements may be applied to current students. Department advisers work closely with students to assist them in meeting the state's standards in a timely manner.

Evidence of having taken the state-mandated tests of basic skills.

Evidence of passing scores on a nationally recognized standardized test such as MTLE, ACT, or SAT.

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

### **Required prerequisites**

#### **Introductory Course (1 cr)**

SSP 1000 (register for 1 cr)  
UST 1000 - UMD Seminar (1.0 - 2.0 cr)

### Pre-Art Education Requirements (18 cr)

Note: ART 903 - Portfolio Review requires a 2.50 overall GPA and a minimum 3.00 GPA in art and art history courses.

ART 1010 - Drawing I (3.0 cr)  
ART 1011 - 2-D Design (3.0 cr)  
ART 1012 - 3-D Design (3.0 cr)  
ART 1013 - 2-D Digital Design (3.0 cr)  
ART 903 - Art Education Portfolio Review (0.0 cr)  
ARTH 1303 - History of World Art I [LE CAT9, HUMANITIES, GLOBAL PER] (3.0 cr)  
ARTH 1304 - History of World Art II [LE CAT9, LEIP CAT09, HUMANITIES] (3.0 cr)

## General Requirements

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

## Program Requirements

1. Make satisfactory academic progress and demonstrate acceptable professional performance in field experiences.
2. Registration for student teaching requires: a) completion of at least 85 percent of teaching major courses; b) completion (graded) of all education methods courses; c) satisfactory academic progress, including grades of C- or better in all courses in the teaching major(s); d) acceptable professional performance in field experiences; and e) an approved background check.
3. Students must have personal liability insurance while they are working in field placement settings.
4. Program completers must pass all tests required by the Minnesota Board of Teaching to be recommended for licensure.
5. Attendance at two Visual Lectures per semester (fall and spring).
6. Passing scores on basic skills test, ACT Plus Writing, SAT and MTLE subject matter content tests, and pedagogy tests and students must complete the edTPA during student teaching as required by the Minnesota Board of Teaching before CEHSP can recommend a graduate to the state for a teaching license.

### SFA Additional Liberal Education Requirement (3 cr)

Three credits of SFA Liberal Education courses from outside the student's chosen major (Dance, Fine Arts, Music, or Theatre). MU 15xx ensembles must be repeated once each semester for a total of 3 credits (may require audition). A 2-credit DN course may be substituted (Art or Music students only).

### Advanced Art Requirements (4 cr)

ART 3700 - Drawing II (3.0 cr)  
ART 4899 - Senior Presentation/Exhibition (1.0 cr)

### Major Studio Requirements (15 cr)

[ART 2100](#) - Painting I (3.0 cr)

[ART 2200](#) - Sculpture I (3.0 cr)

or [ART 2400](#) - Ceramics I (3.0 cr)

Take 3 or more course(s) totaling 9 or more credit(s) from the following:

- [ART 2014](#) - 3-D Digital Studio I (3.0 cr)
- [ART 2016](#) - Digital Arts: Mixed-Media Studio (3.0 cr)
- [ART 2030](#) - Digital Arts: Time-based Media (3.0 cr)
- [ART 2200](#) - Sculpture I (3.0 cr)
- [ART 2400](#) - Ceramics I (3.0 cr)
- [ART 2500](#) - Jewelry and Metals I (3.0 cr)
- [ART 2600](#) - Photography I (3.0 cr)
- [ART 2300](#) - Printmaking I: Intaglio, Relief (3.0 cr)
- or [ART 2301](#) - Printmaking I: Litho, Screen (3.0 cr)

#### Studio Electives (9 cr)

Choose courses from the studio areas.

Take 3 or more course(s) totaling 9 or more credit(s) from the following:

- ART 3xxx
- ART 4xxx

#### Art Education Courses (13 cr)

[ART 3809](#) - Art in Elementary Education Methods (3.0 cr)

[ART 3811](#) - Teacher as Artist: Postmodern Theory and Practice (3.0 cr)

[ART 3814](#) - Digital Methods in Art Education (3.0 cr)

[ART 3815](#) - Art in Secondary Education (3.0 cr)

[ART 4903](#) - Art Education Student Teaching Seminar (1.0 cr)

#### Art History Electives (6 cr)

Take 6 or more credit(s) from the following:

- ARTH 2xxx
- ARTH 3xxx
- ARTH 4xxx

#### Education Requirements (34 - 35 cr)

[EDSE 3206](#) - Apprenticeship: Secondary School (2.0 cr)

[EDSE 4100](#) - Teaching in a Diverse Society (3.0 cr)

[EDSE 4204](#) - Designing Learning Environments and Lessons (3.0 cr)

[EDSE 4214](#) - Teaching Content-Area Reading (2.0 cr)

[EDSE 4501](#) - Adolescent/Adult Development and Learning Theory (3.0 cr)

[EDSE 4525](#) - Assessment for Secondary Education (3.0 cr)

[EDUC 1101](#) - Education in Modern Society [LE CAT7, HUMANITIES] (3.0 cr)

[EDUC 4381](#) - Teaching Indigenous Students (3.0 cr)

[EDUC 4500](#) - Professional Issues and Ethics (1.0 cr)

[HLTH 3202](#) - Drug Education (2.0 cr)

[SPED 3415](#) - Special Education in the Secondary School (3.0 cr)

[EDUC 1000](#) - Human Development (3.0 cr)

or [PSY 2021](#) - Developmental Psychology [LE CAT6, LECD CAT06, SOC SCI, CDIVERSITY] (4.0 cr)

or [PSY 3371](#) - Child and Adolescent Psychology (3.0 cr)

#### Advanced Writing

[WRIT 3110](#) - Advanced Writing: Arts and Letters (3.0 cr)

or [WRIT 3140](#) - Advanced Writing: Human Services (3.0 cr)

#### Background Checks

Students are required to have a background check every two years during practicum/student teaching/volunteering in schools and agencies. Proof of complete background check is required prior to any experience in public school and agency settings.

#### Student Teaching Requirement (12 cr)

All courses must be taken concurrently; applications (available from Dept of Educ website) must be made by the 4th Friday of the semester before student teaching; registration for student teaching in sr year requires grades of C- or better in all courses in teaching major(s)/minor; graded completion of all educ block courses; completion of at least 85% of teaching major courses; students must have personal liability insurance while in field placement settings. Take each course for 6 credits.

[EDSE 4600](#) - Student Teaching (3.0 - 12.0 cr)

[ELED 4650](#) - Student Teaching in Individual Subjects: K-8 (1.0 - 6.0 cr)

## Duluth Campus

### Art History B.A.

UMD Art and Design, Dept of

#### School of Fine Arts

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 120
- Required credits within the major: 62
- Degree: Bachelor of Arts

The B.A. in art history offers introductory and intermediate level courses in the history of western and non-western art from the pre-historic era to the present. The visual arts and architecture are studied in relation to aesthetic traditions, cultural values, and social experience. Museum internships are available through the Tweed Museum of Art.

### Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

### Admission Requirements

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

### General Requirements

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

### Program Requirements

Students are required to take 3 semester(s) of any second language.

1. Minor or second major in another field of study.
2. Final Project: After completing most of the required art history courses required for the major, students are required to write a research paper. The paper may be one written previously for an art history class, an independent study in art history, or an entirely new project. It must be written or revised in consultation with one of the art history faculty, who reads and approves the final version. Check with department for details.
3. Attendance at two visual lectures per semester (fall and spring).

#### Introductory Course (1 cr)

[UST 1000](#) - UMD Seminar (1.0 - 2.0 cr)



### Art History Core Courses (43 cr)

#### American Art

[ARTH 2390](#) - American Art of the 20th Century [LE CAT9, LECD CAT09, HUMANITIES, CDIVERSITY] (3.0 cr)  
or [ARTH 3380](#) - Art of the United States: Colonial to Impressionist (3.0 cr)

#### Art 2-D/3D Design

[ART 1010](#) - Drawing I (3.0 cr)  
or [ART 1011](#) - 2-D Design (3.0 cr)  
or [ART 1012](#) - 3-D Design (3.0 cr)  
or [ART 1013](#) - 2-D Digital Design (3.0 cr)

#### Contemporary Art

[ARTH 2380](#) - A Global History of Contemporary Art (3.0 cr)  
or [ARTH 3150](#) - Contemporary Global Exhibition (3.0 cr)

#### European Art

[ARTH 3330](#) - Renaissance Painting and Sculpture [HUMANITIES] (3.0 cr)  
[ARTH 3370](#) - European Art, 1900-1945 (3.0 cr)  
[ARTH 4330](#) - Florence and the Courts: History of Art & Architecture in Fifteenth-century Italy (3.0 cr)  
[ARTH 3320](#) - Ancient Art (3.0 cr)  
or [ARTH 3340](#) - Baroque and Rococo Art (3.0 cr)  
[ARTH 3360](#) - European Art in an Age of Revolution (3.0 cr)  
or [ARTH 3361](#) - European Art: Impressionism and Post-Impressionism (3.0 cr)

#### Mexican and Latin American Art

[ARTH 3130](#) - Modern and Contemporary Mexican Art (3.0 cr)  
or [ARTH 3140](#) - Women in Art/Visual Culture in Latin America (3.0 cr)

#### Non Contemporary American Art

[ARTH 3110](#) - Art of the Ancient Americas (3.0 cr)  
or [ARTH 3120](#) - Art of Colonial Latin America (3.0 cr)

#### Senior Paper

[ARTH 4999](#) - Senior Paper Art History (1.0 cr)

#### World Art

[ARTH 1303](#) - History of World Art I [LE CAT9, HUMANITIES, GLOBAL PER] (3.0 cr)  
[ARTH 1304](#) - History of World Art II [LE CAT9, LEIP CAT09, HUMANITIES] (3.0 cr)  
[ARTH 1305](#) - Survey of Non-Western Art [HUMANITIES, GLOBAL PER] (3.0 cr)  
[ARTH 2300](#) - The City as a Work of Art [LE CAT9, LEIP CAT09, HUMANITIES] (3.0 cr)

### Foreign Language (12 cr)

Students must take 12 credits of foreign language.

### SFA Additional Liberal Education Requirement (3 cr)

Three credits of SFA Liberal Education courses from outside the student's chosen major (Dance, Fine Arts, Music, or Theatre). MU 15xx ensembles must be repeated once each semester for a total of 3 credits (may require audition). A 2-credit DN course may be substituted (Art or Music students only).

### Advanced Writing Requirement (3 cr)

[WRIT 3100](#) - Advanced Writing: Language and Literature (3.0 cr)  
or [WRIT 3110](#) - Advanced Writing: Arts and Letters (3.0 cr)  
or [WRIT 4200](#) - Writing and Cultures (3.0 cr)



### **Duluth Campus**

## **Art History Minor**

*UMD Art and Design, Dept of*

### **School of Fine Arts**

- Program Type: Undergraduate minor related to major
- Requirements for this program are current for Fall 2016
- Required credits in this minor: 24

The art history minor gives students grounding in western and non-western art history and art historical method. The program integrates knowledge of historical developments in art with concurrent political and social events.

### **Program Delivery**

This program is available:

- via classroom (the majority of instruction is face-to-face)

### **Minor Requirements**

#### **Minor Core Courses (15 cr)**

- [ARTH 1303](#) - History of World Art I [LE CAT9, HUMANITIES, GLOBAL PER] (3.0 cr)
- [ARTH 1304](#) - History of World Art II [LE CAT9, LEIP CAT09, HUMANITIES] (3.0 cr)
- [ARTH 1305](#) - Survey of Non-Western Art [HUMANITIES, GLOBAL PER] (3.0 cr)
- [ARTH 2300](#) - The City as a Work of Art [LE CAT9, LEIP CAT09, HUMANITIES] (3.0 cr)
- [ARTH 2380](#) - A Global History of Contemporary Art (3.0 cr)  
or [ARTH 2390](#) - American Art of the 20th Century [LE CAT9, LECD CAT09, HUMANITIES, CDIVERSITY] (3.0 cr)

#### **Electives (9 cr)**

Take 9 or more credit(s) from the following:

- ARTH 3xxx
- ARTH 4xxx



### **Duluth Campus**

## **Art Minor**

*UMD Art and Design, Dept of*

### **School of Fine Arts**

- Program Type: Undergraduate minor related to major
- Requirements for this program are current for Fall 2016
- Required credits in this minor: 27

The art minor is useful to students desiring cognitive knowledge of and experience in aspects of basic design, studio art, and art history.

## **Program Delivery**

This program is available:

- via classroom (the majority of instruction is face-to-face)

## **Minor Requirements**

### **Art Minor Courses (12 cr)**

[ART 1012](#) - 3-D Design (3.0 cr)

[ART 1009](#) - Fundamentals of Drawing [LE CAT10, FINE ARTS] (3.0 cr)

or [ART 1010](#) - Drawing I (3.0 cr)

[ART 1011](#) - 2-D Design (3.0 cr)

or [ART 1013](#) - 2-D Digital Design (3.0 cr)

[ARTH 1303](#) - History of World Art I [LE CAT9, HUMANITIES, GLOBAL PER] (3.0 cr)

or [ARTH 1304](#) - History of World Art II [LE CAT9, LEIP CAT09, HUMANITIES] (3.0 cr)

or [ARTH 1305](#) - Survey of Non-Western Art [HUMANITIES, GLOBAL PER] (3.0 cr)

### **Studio Electives (15 cr)**

Select from painting, sculpture, printmaking, ceramics, jewelry and metals, photography, digital studio, drawing (no more than 6 credits in any one area).

Take 15 or more credit(s) from the following:

• [ART 1814](#) - Creating Across Cultures [LE CAT9, LECD CAT09, FINE ARTS, CDIVERSITY] (3.0 cr)

• ART 2xxx

• ART 3xxx

• ART 4xxx



## Duluth Campus

### Arts in Media Minor

UMD Art and Design, Dept of

#### School of Fine Arts

- Program Type: Undergraduate free-standing minor
- Requirements for this program are current for Fall 2016
- Required credits in this minor: 30

The arts in media minor is useful to students seeking a broad understanding of and hands-on experience with principles, practices, and technologies used in contemporary mass media. It includes coursework across a range of subject areas to offer the student a wide perspective.

### Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

### Minor Requirements

#### Required Minor Courses (15 cr)

- [ART 1013](#) - 2-D Digital Design (3.0 cr)
- [ART 1900](#) - Visual Literacy [LE CAT9, FINE ARTS] (3.0 cr)
- [ART 2016](#) - Digital Arts: Mixed-Media Studio (3.0 cr)
- [ART 2030](#) - Digital Arts: Time-based Media (3.0 cr)
- [ART 2600](#) - Photography I (3.0 cr)

#### Interdisciplinary/Media Theory/History (6 cr)

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

- [ANTH 1620](#) - Introduction to Public Culture: Citizenship, Science, and Culture (4.0 cr)
- [ART 1003](#) - Introduction to Design [LE CAT9, FINE ARTS] (3.0 cr)
- [ARTH 2380](#) - A Global History of Contemporary Art (3.0 cr)
- [ARTH 2620](#) - History of Photography (3.0 cr)
- [ARTH 3150](#) - Contemporary Global Exhibition (3.0 cr)
- [COMM 1500](#) - Media and Society [LE CAT8, HUMANITIES] (3.0 cr)
- [MU 1004](#) - Music in Film [FINE ARTS] (3.0 cr)
- [TH 1053](#) - Film and Society [LE CAT9] (3.0 cr)
- [TH 2851](#) - Film History (3.0 cr)
- [COMM 2101](#) - Foundations of Mass Communication [LE CAT8, SOC SCI] (3.0 cr)
- [COMM 3211](#) - Communication and Technology in the Information Age (3.0 cr)
- [COMM 3505](#) - Media Communications (3.0 cr)
- [COMM 3520](#) - Media Effects [SOC SCI] (3.0 cr)
- [COMM 3560](#) - Video Game Entertainment (3.0 cr)
- [WRIT 4230](#) - Web Design and Digital Culture (3.0 cr)
- [WRIT 4250](#) - New Media Writing (3.0 cr)

#### Experiential Electives (9 cr)

Take 3 or more course(s) totaling 9 or more credit(s) from the following:

- [ART 1305](#) - Social Multiples: Availability and Circulation [FINE ARTS] (3.0 cr)
- [ART 2014](#) - 3-D Digital Studio I (3.0 cr)
- [ART 2018](#) - Digital Arts: Interactive Media (3.0 cr)
- [ART 2040](#) - Digital Filmmaking: Visual Narratives (3.0 cr)
- [ART 3031](#) - Digital Arts: Installation and Collaborative Media (3.0 cr)
- [ART 3040](#) - Digital Filmmaking: Experimental Techniques (3.0 cr)
- [ART 3214](#) - Sculpture II: Robotics and Physical Computing (3.0 cr)
- [ART 3814](#) - Digital Methods in Art Education (3.0 cr)
- [ART 4016](#) - Digital Arts: Advanced Projects (3.0 cr)
- [ART 4040](#) - Digital Filmmaking: Advanced Projects (3.0 cr)
- [ART 4091](#) - Individual Study in Electronic Arts (1.0 - 3.0 cr)
- [ART 4600](#) - Photography: Digital Portfolio (3.0 cr)
- [ART 4793](#) - Intermedia Studio (1.0 - 3.0 cr)





## Duluth Campus

### Dance Minor

Theatre

#### School of Fine Arts

- Program Type: Undergraduate free-standing minor
- Requirements for this program are current for Fall 2016
- Required credits in this minor: 23 to 31

The Department of Theatre offers two emphases within the dance minor. The Dance Studies Emphasis provides students an in-depth appreciation of dance as a performance and social art form, while the Applied Dance Emphasis offers experienced dancers opportunities to further develop technique, artistry, and knowledge of the field. Technique courses are offered in ballet, modern, jazz, and tap, and are complemented with courses in dance appreciation, dance history, dance composition, and/or related academic areas. Annual dance concerts provide opportunities for performance and choreography.

### Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

### Minor Requirements

Dance minors should confer with a minor adviser from the Department of Theatre to develop a sound schedule for taking courses to complete the minor in less than four years. Students are advised to note prerequisites and to take courses in proper sequence.

### Program Sub-plans

Students are required to complete one of the following sub-plans.

#### Applied Dance

##### History/Analysis (9 cr)

[DN 1001](#) - Introduction to the World of Dance [LE CAT9, LEIP CAT09, FINE ARTS] (3.0 cr)

[DN 3401](#) - Dance Composition (3.0 cr)

[DN 3611](#) - Dance History (3.0 cr)

##### Beginning Level Technique (0 - 8 cr)

Students with previous dance study may be exempt from some Beginning Level Technique requirements and should consult the department about placement.

[DN 1101](#) - Modern Dance Technique I [LE CAT10, FINE ARTS] (2.0 cr)

[DN 1111](#) - Jazz Dance Technique I [LE CAT10, FINE ARTS] (2.0 cr)

[DN 1121](#) - Tap Dance Technique I (2.0 cr)

[DN 1131](#) - Ballet Technique I [LE CAT10, FINE ARTS] (2.0 cr)

##### Intermediate Level Techniques (8 cr)

Take 4 or more course(s) totaling 8 or more credit(s) from the following:

• [DN 2111](#) - Jazz Dance Techniques II (2.0 cr)

• [DN 2131](#) - Ballet Technique II (2.0 cr)

• [DN 3201](#) - Modern Dance Technique II (2.0 cr)

• [DN 3211](#) - Jazz Dance Technique III (2.0 cr)

• [DN 3231](#) - Ballet Technique III (2.0 cr)

##### Intermediate/Advanced Level Technique (6 cr)

Take 6 or more credit(s) from the following:

• [DN 3221](#) - Tap Dance Technique II (2.0 cr)

• [DN 3241](#) - Social Dance for the Stage (1.0 cr)

• [DN 3995](#) - Special Topics (Various Titles to be Assigned) (1.0 - 9.0 cr)

• [DN 4311](#) - Jazz Dance Technique IV (2.0 cr)

• [DN 4331](#) - Ballet Technique IV (2.0 cr)

#### Dance Studies

##### History/Analysis (9 cr)

[DN 1001](#) - Introduction to the World of Dance [LE CAT9, LEIP CAT09, FINE ARTS] (3.0 cr)

[DN 3611](#) - Dance History (3.0 cr)



DN 3995 - Special Topics (Various Titles to be Assigned) (1.0 - 9.0 cr)  
or TH 1071 - Musical Theatre History [LE CAT9, HUMANITIES] (3.0 cr)

**Beginning Level Technique Classes (8 cr)**

After consultation with the instructor, a Techniques 1 class in a particular style could be taken twice rather than one Fundamentals class and one Techniques class.

Take 4 or more course(s) totaling 8 or more credit(s) from the following:

- DN 1011 - Tap Dance Fundamentals [LE CAT10] (2.0 cr)
- DN 1101 - Modern Dance Technique I [LE CAT10, FINE ARTS] (2.0 cr)
- DN 1110 - Jazz Dance Fundamentals [FINE ARTS] (2.0 cr)
- DN 1111 - Jazz Dance Technique I [LE CAT10, FINE ARTS] (2.0 cr)
- DN 1121 - Tap Dance Technique I (2.0 cr)
- DN 1131 - Ballet Technique I [LE CAT10, FINE ARTS] (2.0 cr)

**Intermediate Level Techniques Classes (6 cr)**

It is strongly encouraged that students take classes in more than one style at the Intermediate level.

Take 6 or more credit(s) from the following:

- DN 2101 - Physical Conditioning for Dance (1.0 cr)
- DN 2111 - Jazz Dance Techniques II (2.0 cr)
- DN 2131 - Ballet Technique II (2.0 cr)
- DN 3201 - Modern Dance Technique II (2.0 cr)
- DN 3211 - Jazz Dance Technique III (2.0 cr)
- DN 3231 - Ballet Technique III (2.0 cr)



## Duluth Campus

# Film Studies Minor

Theatre

## School of Fine Arts

- Program Type: Undergraduate free-standing minor
- Requirements for this program are current for Fall 2016
- Required credits in this minor: 18

The film studies minor provides an interdisciplinary approach to film, exploring the medium through practical, historical, and social contexts. Required courses in the minor give students an understanding of the art of filmmaking, a history of film, and how film connects to society. Electives in the minor offer students the opportunity to focus on more specific aspects of film ranging from film genres to photography to screenwriting.

## Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

## Minor Requirements

### Minor Courses (9 cr)

- [TH 1051](#) - Introduction to Film [LE CAT9, FINE ARTS] (3.0 cr)
- [TH 1053](#) - Film and Society [LE CAT9] (3.0 cr)
- [TH 2851](#) - Film History (3.0 cr)

### Elective Courses (9 cr)

Students must take a total of 9 elective credits.

#### Practical/Experiential

Take 1 - 2 course(s) totaling 3 - 6 credit(s) from the following:

- [ART 2030](#) - Digital Arts: Time-based Media (3.0 cr)
- [ART 2040](#) - Digital Filmmaking: Visual Narratives (3.0 cr)
- [ART 3040](#) - Digital Filmmaking: Experimental Techniques (3.0 cr)
- [ART 4040](#) - Digital Filmmaking: Advanced Projects (3.0 cr)
- [TH 3851](#) - Screenwriting (3.0 cr)

#### Historical/Theoretical

Take 1 - 2 course(s) totaling 3 - 8 credit(s) from the following:

- [AMIN 4640](#) - American Indians in the Movies [HUMANITIES, CDIVERSITY] (3.0 cr)
- [ENGL 4292](#) - Literature into Film (4.0 cr)
- [FR 2315](#) - French Cinema [LE CAT9, LEIP CAT09, HUMANITIES] (4.0 cr)
- [GER 4305](#) - German Cinema [HUMANITIES] (4.0 cr)
- [HIST 3346](#) - History of Hollywood (4.0 cr)
- [MU 1004](#) - Music in Film [FINE ARTS] (3.0 cr)
- [POL 3025](#) - Popular Culture and Politics (4.0 cr)
- [SPAN 2093](#) - Spanish Historical Film and Fiction in Translation [LE CAT7, HUMANITIES, GLOBAL PER] (4.0 cr)
- [SPAN 4017](#) - Hispanic American Cinema and Culture [FINE ARTS] (4.0 cr)
- [SPAN 4030](#) - Cinema and Culture of Spain [FINE ARTS] (4.0 cr)
- [WS 3400](#) - Women and Film [GLOBAL PER] (3.0 cr)

### Duluth Campus

## Graphic Design and Marketing B.F.A.

UMD Art and Design, Dept of

### School of Fine Arts

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 122
- Required credits within the major: 109
- Degree: Bachelor of Fine Arts

The B.F.A. in Graphic Design and Marketing is a collaborative professional degree between the School of Fine Arts and the Labovitz School of Business and Economics that combines graphic design coursework with an array of marketing courses to provide a strong, integrated, and broad-range professional skill-set.

Current industry practice involves collaboration between designers, marketing specialists, and various members of creative teams who develop promotional strategies based on solid market research, designing materials for an increasing array of venues, including social media. Designers with backgrounds in both marketing and business are simply better equipped for positions in the contemporary marketplace.

The degree enables graduates to work effectively in industry-standard creative teams, moving from empirically identifying and measuring consumer needs and desires to the design of effective promotional graphic systems and materials.

### Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

### Admission Requirements

Students must complete 13 credits before admission to the program.

Students are admitted as "Pre-GD/Marketing" then take Portfolio Review second semester after completing 9 credits of Art Foundation. Admission is dependent on passing (S/N grading) Art 901.

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

#### Required prerequisites

##### Introductory Course (1 cr)

[UST 1000](#) - UMD Seminar (1.0 - 2.0 cr)

##### Pre-Graphic Design (12 cr)

[ART 1010](#) - Drawing I (3.0 cr)

[ART 1011](#) - 2-D Design (3.0 cr)

[ART 1013](#) - 2-D Digital Design (3.0 cr)

[ART 1900](#) - Visual Literacy [LE CAT9, FINE ARTS] (3.0 cr)

[ART 901](#) - Graphic Design Portfolio Review (0.0 cr)

### General Requirements

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.



6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

## Program Requirements

Attendance at two visual cultural lectures per semester (fall and spring).

### Pre-Business (6 cr)

[ACCT 2001](#) - Principles of Financial Accounting (3.0 cr)

[ECON 2030](#) - Applied Statistics for Business and Economics [LOGIC & QR] (3.0 cr)

### Art History (12 cr)

[ARTH 1303](#) - History of World Art I [LE CAT9, HUMANITIES, GLOBAL PER] (3.0 cr)

or [ARTH 1304](#) - History of World Art II [LE CAT9, LEIP CAT09, HUMANITIES] (3.0 cr)

or [ARTH 1305](#) - Survey of Non-Western Art [HUMANITIES, GLOBAL PER] (3.0 cr)

[ARTH 2390](#) - American Art of the 20th Century [LE CAT9, LECD CAT09, HUMANITIES, CDIVERSITY] (3.0 cr)

[ARTH 2901](#) - History of Graphic Design (3.0 cr)

Take 3 or more credit(s) from the following:

- [ARTH 2xxx](#)
- [ARTH 3xxx](#)

### Graphic Design (39 cr)

[ART 2905](#) - Design Technology I (3.0 cr)

[ART 2906](#) - Design Technology II (3.0 cr)

[ART 2907](#) - Typography I (3.0 cr)

[ART 2911](#) - Graphic Design I (3.0 cr)

[ART 3906](#) - Emerging Media Design (3.0 cr)

[ART 3922](#) - Graphic Design II (3.0 cr)

[ART 3933](#) - Graphic Design III (3.0 cr)

[ART 3937](#) - Typography II (3.0 cr)

[ART 4908](#) - Interactive Design I (3.0 cr)

[ART 4909](#) - Interactive Design II (3.0 cr)

[ART 4922](#) - Senior Design Studio I (3.0 cr)

[ART 4933](#) - Senior Design Studio II (3.0 cr)

[ART 4944](#) - Graphic Design IV (3.0 cr)

or [ART 4955](#) - Graphic Design V (3.0 cr)

### Marketing (18 cr)

#### Group A (9 cr)

[MKTG 3701](#) - Principles of Marketing (3.0 cr)

[MKTG 3711](#) - Marketing Research (3.0 cr)

[MKTG 4731](#) - Consumer Behavior (3.0 cr)

#### Group B (9 cr)

Take 9 or more credit(s) from the following:

•[MKTG 3721](#) - Social Media Marketing (3.0 cr)

•[MKTG 3741](#) - Fundamentals of Selling (3.0 cr)

•[MKTG 3751](#) - Marketing Ethics (3.0 cr)

•[MKTG 3771](#) - Sports Marketing (3.0 cr)

•[MKTG 3781](#) - International Marketing (3.0 cr)

•[MKTG 3797](#) - Marketing Internship (1.0 - 6.0 cr)

•[MKTG 4711](#) - Business-to-Business Marketing (3.0 cr)

•[MKTG 4721](#) - Advertising and Marketing Communications (3.0 cr)

•[MKTG 4741](#) - Developing and Marketing New Products (3.0 cr)

•[MKTG 4751](#) - Retailing (3.0 cr)

•[MKTG 4781](#) - Marketing Management and Strategy (3.0 cr)

•[MKTG 4795](#) - Special Topics (Various Topics to be Assigned) (3.0 cr)

### Courses Required From Other Programs (18 cr)

#### Advanced Writing

[WRIT 3121](#) - Advanced Writing: Business and Organizations (3.0 cr)



or WRIT 31xx

**Communication**

[COMM 1112](#) - Public Speaking [LE CAT3, COMM & LAN] (3.0 cr)

or [COMM 1222](#) - Interpersonal Communication [LE CAT3, LECD CAT03, COMM & LAN] (3.0 cr)

**Economics**

[ECON 1003](#) - Economics and Society [LE CAT8, SOC SCI] (3.0 cr)

**Math**

[MATH 1160](#) - Finite Mathematics and Introduction to Calculus [LE CAT2, LOGIC & QR] (5.0 cr)

or [MATH 1296](#) - Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)

or [MATH 1596](#) - Honors: Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)

**Psychology**

[PSY 1003](#) - General Psychology [LE CAT6, SOC SCI] (4.0 cr)

**SFA Additional Liberal Education Requirement (3 cr)**

Three credits of SFA Liberal Education courses from outside the student's chosen major (Dance, Fine Arts, Music or Theatre). MU 15xx ensembles must be repeated once each semester for a total of 3 credits (may require audition). A 2-credit DN course may be substituted (Art or Music students only).



## Duluth Campus

# Graphic Design B.F.A.

UMD Art and Design, Dept of

## School of Fine Arts

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 120
- Required credits within the major: 91
- Degree: Bachelor of Fine Arts

The graphic design profession uses the creative process and technology to communicate ideas and messages. Delivery of the message can be multidimensional, print and screen based, interactive, involve sound and motion, or be real or virtual. Graphic design involves type and language, abstract and figurative imagery, concept, technology, and craft.

The discipline takes place within commercial, academic, and institutional contexts in the private and public realms, and allows individuals to enter a rewarding profession that demands creativity and vision.

Acknowledging the interdisciplinary nature of the profession, the Department of Art and Design takes advantage of its position as a department in the School of Fine Arts to provide students with the opportunity to gain firsthand experience of all the arts in a manner that is possible in only a small percentage of universities nationwide. To qualify for this program, pre-graphic design students must pass a portfolio review (ART 0901) during the second semester of their freshman year.

Department honors requirements: Candidates nominated by art and design department faculty receive honors for distinguished achievement, demonstrated in part by projects and portfolios completed in Senior Design Studio I and II (ART 4922 and 4933).

## Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

## Admission Requirements

Freshman and transfer students are usually admitted to pre-major status before admission to this major

Students must pass portfolio review. The review occurs (approximately) during the seventh week of spring semester each year and is conducted by the graphic design faculty. Advanced placement students may be eligible for a portfolio review during the week before the start of fall semester. After completion of at least 9 credits of pre-graphic design requirement ART core courses, students must submit a portfolio of work selected from the courses, and a specified writing sample for the review.

After admission to the graphic design major (passing the portfolio review), the coursework required for the program is sequential and takes a minimum of three years, or six semesters (see sample plan). Transfer students, and students who change their major to graphic design, need to be aware of this time requirement to complete the program.

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

### Required prerequisites

#### Introductory Course (1 cr)

[UST 1000](#) - UMD Seminar (1.0 - 2.0 cr)

#### Pre-Graphic Design Requirements (15 cr)

Note: ART 1010, 1011, 1012, and 1013 may be taken either semester of the first year. They are not sequential.

Graphic Art Portfolio Review (ART 0901) requires a 2.00 GPA overall and in art and art history courses.

[ART 901](#) - Graphic Design Portfolio Review (0.0 cr)

[ART 1010](#) - Drawing I (3.0 cr)

[ART 1011](#) - 2-D Design (3.0 cr)

[ART 1012](#) - 3-D Design (3.0 cr)

[ART 1013](#) - 2-D Digital Design (3.0 cr)

[ART 1900](#) - Visual Literacy [LE CAT9, FINE ARTS] (3.0 cr)

## General Requirements

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

## Program Requirements

1. Transfer credits must carry a minimum grade of C.
2. Attendance at two visual lectures per semester (fall and spring).

### Major Courses (42 cr)

- ART 2905 - Design Technology I (3.0 cr)
- ART 2906 - Design Technology II (3.0 cr)
- ART 2907 - Typography I (3.0 cr)
- ART 2911 - Graphic Design I (3.0 cr)
- ART 3906 - Emerging Media Design (3.0 cr)
- ART 3922 - Graphic Design II (3.0 cr)
- ART 3933 - Graphic Design III (3.0 cr)
- ART 3937 - Typography II (3.0 cr)
- ART 4908 - Interactive Design I (3.0 cr)
- ART 4909 - Interactive Design II (3.0 cr)
- ART 4922 - Senior Design Studio I (3.0 cr)
- ART 4944 - Graphic Design IV (3.0 cr)
- ART 4955 - Graphic Design V (3.0 cr)
- ARTH 2901 - History of Graphic Design (3.0 cr)

### Studio Courses (15 cr)

Take 3 or more course(s) totaling 9 or more credit(s) from the following:

- ART 2014 - 3-D Digital Studio I (3.0 cr)
- ART 2016 - Digital Arts: Mixed-Media Studio (3.0 cr)
- ART 2018 - Digital Arts: Interactive Media (3.0 cr)
- ART 2030 - Digital Arts: Time-based Media (3.0 cr)
- ART 2040 - Digital Filmmaking: Visual Narratives (3.0 cr)
- ART 2100 - Painting I (3.0 cr)
- ART 2200 - Sculpture I (3.0 cr)
- ART 2400 - Ceramics I (3.0 cr)
- ART 2500 - Jewelry and Metals I (3.0 cr)
- ART 2600 - Photography I (3.0 cr)
- ART 2300 - Printmaking I: Intaglio, Relief (3.0 cr)  
or ART 2301 - Printmaking I: Litho, Screen (3.0 cr)

#### •Upper Level Studio Electives

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

- ART 3xxx
- ART 4xxx

### Art History Electives (9 cr)

- ARTH 1303 - History of World Art I [LE CAT9, HUMANITIES, GLOBAL PER] (3.0 cr)



or [ARTH 1304](#) - History of World Art II [LE CAT9, LEIP CAT09, HUMANITIES] (3.0 cr)

or [ARTH 1305](#) - Survey of Non-Western Art [HUMANITIES, GLOBAL PER] (3.0 cr)

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

•ARTH 2xxx

•ARTH 3xxx

#### **Final Project (3 cr)**

Students complete the capstone design course, ART 4933. Portfolio project addresses individual student needs and highlights design strengths for career placement. Instructors assessing the senior project maintain criteria used in the entry-level portfolio review rubric. Results are reflected in the grade.

[ART 4933](#) - Senior Design Studio II (3.0 cr)

#### **SFA Additional Liberal Education Requirement (3 cr)**

Three credits of SFA Liberal Education courses from outside the student's chosen major (dance, fine arts, music, or theatre). MU 15xx ensembles must be repeated once each semester for a total of 3 credits (may require audition). A 2-credit DN course may be substituted (art or music students only).

#### **Advanced Writing (3 cr)**

[WRIT 3110](#) - Advanced Writing: Arts and Letters (3.0 cr)

or [WRIT 4230](#) - Web Design and Digital Culture (3.0 cr)

or [WRIT 4250](#) - New Media Writing (3.0 cr)

## Duluth Campus

### Jazz Studies B.Mus.

Music

#### School of Fine Arts

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 120
- Required credits within the major: 93
- Degree: Bachelor of Music

The B.Mus. in jazz studies is for students pursuing programs of intensive study to prepare for professional careers in jazz studies and/or for acceptance into a graduate degree program, to assist students to acquire high quality jazz performance artistry, and to provide students advanced historical, and theoretical knowledge of jazz music(s).

Department honors requirements: Candidates, nominated by music department faculty, receive honors for distinguished achievement in musical performance, composition, or exceptional ability and accomplishment as a music educator.

### Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

### Admission Requirements

A GPA above 2.0 is preferred for the following:

- 2.50 transferring from outside the University

Students must pass a performance audition to be accepted into any music degree program. At the time of the audition, students must also complete diagnostic examinations in theory/aural/keyboards skills and an interview with the department head or an appointed designee. Any student who receives provisional acceptance into a degree program must pass a review (usually at the end of the first semester) to receive full acceptance. That review includes recommendations of major instructors and successful completion of an applied jury. Transfer students must have a 2.50 GPA.

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

### General Requirements

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

### Program Requirements

1. Minimum of C- in all required courses.



### Introductory Course (1 cr)

Music majors register for 1 cr

UST 1000 - UMD Seminar (1.0 - 2.0 cr)

### Music Core (23 cr)

MU 100 - Recital Hour (0.0 cr)

MU 200 - Basic Piano Proficiency (0.0 cr)

MU 300 - Advanced Standing Exam (0.0 cr)

MU 1111 - Tonal Harmony I (3.0 cr)

MU 1112 - Ear-Training and Sight-Singing I (1.0 cr)

MU 1121 - Tonal Harmony II (3.0 cr)

MU 1122 - Ear-Training II (1.0 cr)

MU 2111 - Tonal Harmony III (3.0 cr)

MU 2112 - Ear-Training III (1.0 cr)

MU 2121 - Tonal Harmony IV (3.0 cr)

MU 2122 - Ear-Training, Sight Singing and Improvisation (1.0 cr)

MU 2701 - Fundamentals of Conducting (1.0 cr)

MU 3201 - Music History I (3.0 cr)

MU 3202 - Music History II (3.0 cr)

### Major Core Requirements (23 cr)

MU 4997 (Register for 1 cr)

MU 1005 - Jazz Studies [LE CAT9, LECD CAT09, FINE ARTS, CDIVERSITY] (3.0 cr)

MU 1421 - Piano Class I (1.0 cr)

MU 1422 - Piano Class II (1.0 cr)

MU 2110 - Jazz Theory (2.0 cr)

MU 2802 - Jazz Improvisation I (2.0 cr)

MU 2803 - Jazz Improvisation II (2.0 cr)

MU 3805 - Jazz Writing I (2.0 cr)

MU 3806 - Jazz Writing II (2.0 cr)

MU 3807 - Jazz Literature (2.0 cr)

MU 4300 - Senior Recital (1.0 cr)

MU 4803 - Jazz Pedagogy (2.0 cr)

MU 4807 - Music Industry (2.0 cr)

MU 4997 - Internship in Music (1.0 - 2.0 cr)

### Applied Instruction (16 cr)

MU 0100 must be taken concurrently each semester with applied instruction in principal instrument.

#### Applied Instruction 13xx Level

2 credits of applied instruction each semester.

Take 8 or more credit(s) from the following:

•MU 1xxx

#### Applied Instruction 43xx Level

2 credits of applied instruction each semester

Take 8 or more credit(s) from the following:

•MU 4xxx

### Applied Jazz Instruction (8 cr)

Piano majors must take a minimum of 4 credits from MU 1321 and guitar majors must take a minimum of 4 credits from MU 1391.

Take 8 or more credit(s) from the following:

•MU 1321 - Piano-Major (2.0 - 3.0 cr)

•MU 1327 - Jazz Applied (2.0 cr)

•MU 1391 - Classical Guitar-Major (2.0 - 3.0 cr)

### Ensemble Requirements (16 credits)

Take 2 credits each semester.

Take 6 or more credit(s) from the following:

•MU 1505 - Jazz Ensemble [LE CAT10, LECD CAT10, FINE ARTS] (1.0 cr)

•MU 4505 - Jazz Ensemble (1.0 cr)

Take 2 or more credit(s) from the following:

•MU 1501 - Concert Band [LE CAT10, FINE ARTS] (1.0 cr)

•MU 1502 - Symphonic Wind Ensemble [LE CAT10, LEIP CAT10, FINE ARTS] (1.0 cr)

•MU 1503 - Symphony Orchestra [LE CAT10, LEIP CAT10, FINE ARTS] (1.0 cr)

•MU 1504 - Chamber Orchestra [LE CAT10, FINE ARTS] (1.0 cr)



- [MU 1510](#) - Concert Chorale [LE CAT10, FINE ARTS] (1.0 cr)
- [MU 1511](#) - University Singers [LE CAT10, LEIP CAT10, FINE ARTS] (1.0 cr)
- [MU 1515](#) - Percussion Ensemble (1.0 cr)
- [MU 4501](#) - Concert Band (1.0 cr)
- [MU 4502](#) - Symphonic Wind Ensemble (1.0 cr)
- [MU 4503](#) - Symphony Orchestra (1.0 cr)
- [MU 4504](#) - Chamber Orchestra (1.0 cr)
- [MU 4510](#) - Concert Chorale (1.0 cr)
- [MU 4511](#) - University Singers (1.0 cr)
- [MU 4515](#) - Percussion Ensemble (1.0 cr)

Must include jazz combo or jazz guitar ensemble

Take 6 or more credit(s) from the following:

- [MU 1541](#) - Chamber Music (1.0 cr)
- [MU 4541](#) - Chamber Music (1.0 cr)

#### **Advanced Writing (3 cr)**

[WRIT 3110](#) - Advanced Writing: Arts and Letters (3.0 cr)

#### **SFA Additional Liberal Education Requirement (3 cr)**

Three additional credits of SFA Liberal Education course(s) from outside the student's chosen major (art, art history, dance, fine arts or theatre). A 2-credit DN course may be substituted (art, or music students only).



### **Duluth Campus**

## **Jazz Studies Minor**

*Music*

### **School of Fine Arts**

- Program Type: Undergraduate minor related to major
- Requirements for this program are current for Fall 2016
- Required credits in this minor: 28

The jazz studies minor may be selected by B.Mus. music majors and non-majors and offers additional study in jazz to students with a background and interest in jazz style and performance.

### **Program Delivery**

This program is available:

- via classroom (the majority of instruction is face-to-face)

### **Minor Requirements**

#### **Applied Instruction (4 cr)**

Principal instrument

1 credit of a principal instrument each semester

Take 4 or more credit(s) from the following:

- MU 1xxx

#### **Minor Courses (24 cr)**

Students must take MU 100 every semester in which they take applied instruction on their principal instrument, for a total of 4 semesters.

[MU 100](#) - Recital Hour (0.0 cr)

[MU 1005](#) - Jazz Studies [LE CAT9, LECD CAT09, FINE ARTS, CDIVERSITY] (3.0 cr)

[MU 1111](#) - Tonal Harmony I (3.0 cr)

[MU 1112](#) - Ear-Training and Sight-Singing I (1.0 cr)

[MU 1121](#) - Tonal Harmony II (3.0 cr)

[MU 1122](#) - Ear-Training II (1.0 cr)

[MU 2802](#) - Jazz Improvisation I (2.0 cr)

[MU 2803](#) - Jazz Improvisation II (2.0 cr)

[MU 4803](#) - Jazz Pedagogy (2.0 cr)

[MU 4807](#) - Music Industry (2.0 cr)

MU 1541 - 0.5 cr for 2 semesters for a total of 1.0 cr.

[MU 1505](#) - Jazz Ensemble [LE CAT10, LECD CAT10, FINE ARTS] (1.0 cr)

or [MU 1541](#) - Chamber Music (1.0 cr)

MU 4541 - 0.5 cr for 2 semesters for a total of 1.0 cr.

[MU 4505](#) - Jazz Ensemble (1.0 cr)

or [MU 4541](#) - Chamber Music (1.0 cr)

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

• [MU 2001](#) - Ethnic and Folk Music of the World [LE CAT9, LEIP CAT09, FINE ARTS] (3.0 cr)

• [MU 2003](#) - Survey of American Music [LE CAT9, FINE ARTS] (3.0 cr)

• [MU 2005](#) - African Roots of American Music [LE CAT9, LECD CAT09, FINE ARTS] (3.0 cr)

• [MU 3202](#) - Music History II (3.0 cr)

## Duluth Campus

### Music B.A.

Music

#### School of Fine Arts

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 120
- Required credits within the major: 61
- Degree: Bachelor of Arts

The B.A. in music offers students a general course of music study in a liberal arts setting, providing students an overview of music theory, history, and performance practice. The program helps students acquire a broad and general understanding of music as a cultural/social phenomenon. Along with the courses required within the major, students must select a minor or second major appropriate to their academic goals.

Department Honors Requirements: Candidates, nominated by music department faculty, receive honors for distinguished achievement in musical performance, composition, or exceptional ability and accomplishment as a music educator.

### Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

### Admission Requirements

A GPA above 2.0 is preferred for the following:

- 2.50 transferring from outside the University

Students must pass a performance audition to be accepted into any music degree program. At the time of the audition, students must also complete diagnostic examinations in theory/aural/keyboards skills and an interview with the department head or an appointed designee. Any student who receives provisional acceptance into a degree program must pass a review (usually at the end of the first semester) to receive full acceptance. That review includes recommendations of major instructors and successful completion of an applied jury. Transfer students must have a 2.50 GPA.

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

### General Requirements

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

### Program Requirements

1. Minor or second major in another field outside of music.
2. Courses with grades less than C- will not count toward the major.

**Introductory Course (1 cr)**

Music majors register for 1 credit.  
[UST 1000](#) - UMD Seminar (1.0 - 2.0 cr)

**Music Core (23 cr)**

It is strongly recommended that BA students with voice as principal instrument register for MU 1411 Diction: Italian and English in the fall semester of their first year.

[MU 100](#) - Recital Hour (0.0 cr)  
[MU 200](#) - Basic Piano Proficiency (0.0 cr)  
[MU 300](#) - Advanced Standing Exam (0.0 cr)  
[MU 1111](#) - Tonal Harmony I (3.0 cr)  
[MU 1112](#) - Ear-Training and Sight-Singing I (1.0 cr)  
[MU 1121](#) - Tonal Harmony II (3.0 cr)  
[MU 1122](#) - Ear-Training II (1.0 cr)  
[MU 2111](#) - Tonal Harmony III (3.0 cr)  
[MU 2112](#) - Ear-Training III (1.0 cr)  
[MU 2121](#) - Tonal Harmony IV (3.0 cr)  
[MU 2122](#) - Ear-Training, Sight Singing and Improvisation (1.0 cr)  
[MU 2701](#) - Fundamentals of Conducting (1.0 cr)  
[MU 3201](#) - Music History I (3.0 cr)  
[MU 3202](#) - Music History II (3.0 cr)

**Major Core Requirements**

[MU 3350](#) - Half-Recital (0.0 cr)

**Applied Instruction (16 cr)**

Students must complete 16 credits; 8 credits from MU 1xxx and 8 credits from MU 4xxx. With prior approval, students may complete 12 credits of MU 1xxx and 4 credits of MU 4xxx. MU 0100 must be taken concurrently each semester with applied instruction in principal instrument.

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

**Principal Instrument - 13xx**

Two credits of principal instrument each semester

Take 8 or more credit(s) from the following:

•MU 1xxx

**•Principal Instrument - 43xx**

Two credits of principal instrument each semester

Take 8 or more credit(s) from the following:

•MU 4xxx

**Keyboard Instruction (2 cr)**

[MU 1421](#) - Piano Class I (1.0 cr)  
[MU 1422](#) - Piano Class II (1.0 cr)  
or Taken for 2 semesters  
[MU 1322](#) - Piano-Non Major (1.0 cr)

**Ensembles (8 cr)**

1 each semester

Take 8 or more credit(s) from the following:

Take 4 or more credit(s) from the following:

- [MU 1501](#) - Concert Band [LE CAT10, FINE ARTS] (1.0 cr)
- [MU 1502](#) - Symphonic Wind Ensemble [LE CAT10, LEIP CAT10, FINE ARTS] (1.0 cr)
- [MU 1503](#) - Symphony Orchestra [LE CAT10, LEIP CAT10, FINE ARTS] (1.0 cr)
- [MU 1504](#) - Chamber Orchestra [LE CAT10, FINE ARTS] (1.0 cr)
- [MU 1505](#) - Jazz Ensemble [LE CAT10, LECD CAT10, FINE ARTS] (1.0 cr)
- [MU 1510](#) - Concert Chorale [LE CAT10, FINE ARTS] (1.0 cr)
- [MU 1511](#) - University Singers [LE CAT10, LEIP CAT10, FINE ARTS] (1.0 cr)
- [MU 1512](#) - Chamber Singers [LE CAT10, FINE ARTS] (1.0 cr)
- [MU 1513](#) - Vocal Jazz Ensemble [LE CAT10, LECD CAT10, FINE ARTS] (1.0 cr)
- [MU 1515](#) - Percussion Ensemble (1.0 cr)



- [MU 3510](#) - Opera Studio (1.0 cr)
- Take 4 or more credit(s) from the following:
  - [MU 3510](#) - Opera Studio (1.0 cr)
  - [MU 4501](#) - Concert Band (1.0 cr)
  - [MU 4502](#) - Symphonic Wind Ensemble (1.0 cr)
  - [MU 4503](#) - Symphony Orchestra (1.0 cr)
  - [MU 4504](#) - Chamber Orchestra (1.0 cr)
  - [MU 4505](#) - Jazz Ensemble (1.0 cr)
  - [MU 4510](#) - Concert Chorale (1.0 cr)
  - [MU 4511](#) - University Singers (1.0 cr)
  - [MU 4512](#) - Chamber Singers (1.0 cr)
  - [MU 4513](#) - Vocal Jazz Ensemble (1.0 cr)
  - [MU 4515](#) - Percussion Ensemble (1.0 cr)

**Electives (5 cr)**

Take 5 or more credit(s) from the following:

- MU 2xxx
- MU 3xxx
- MU 4xxx
- MU 5xxx

**Advanced Writing (3 cr)**

**Advanced Writing**

- [WRIT 3110](#) - Advanced Writing: Arts and Letters (3.0 cr)

**Proficiency Exams**

Basic piano proficiency; advanced proficiency in principal instrument

**SFA Additional Liberal Education Requirement (3 cr)**

Three additional credits of SFA Liberal Education course(s) from outside the student's chosen major (Art, Art History, Dance, Fine Arts or Theatre). A 2-credit DN course may be substituted (Art, or Music students only).

### **Duluth Campus**

## **Music Education B.Mus.**

*Music*

### **School of Fine Arts**

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 133 to 134
- Required credits within the major: 111 to 112
- Degree: Bachelor of Music

The B.Mus. in music education is for students planning to teach classroom instrumental or vocal music. The program prepares and inspires students to acquire effective teaching skills and to develop a commitment to teaching and to music education. It prepares students to be advocates for music in the K-12 setting. Graduates with this degree may be recommended for Minnesota Teacher Licensure.

Department Honors Requirements: Candidates, nominated by music department faculty, receive honors for distinguished achievement in musical performance, composition, or exceptional ability and accomplishment as a music educator.

### **Program Delivery**

This program is available:

- via classroom (the majority of instruction is face-to-face)

### **Admission Requirements**

Freshman and transfer students students are usually admitted to pre-major status before admission to this major

A GPA above 2.0 is preferred for the following:

- 2.50 transferring from outside the University

Students must pass performance audition, diagnostic exams in theory/aural/keyboards skills & interview with dept head/appointed designee. Students who receive provisional acceptance must pass a review to receive full acceptance, including recommendations from major instructors, and successful completion of an applied jury. To be accepted into educ component, students must 1) take EDUC 1101; 2) GPA of at least 2.50 cumulative including transfer work & major courses completed at time of application; 3) MTLE Basic Skills Test for licensure or passing scores on ACT + Writing or SAT Exam; 4) minimum of 30 documented hrs working with students, grades 5-12; 5) minimum 1 letter of recommendation; 6) C- or better in all required courses for major. Students must submit letter of application, resume, letters of recommendation & APAS report. There are alternatives to admission procedures to encourage the participation of individuals from underrepresented groups & students as determined by the dept.

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

### **General Requirements**

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.



## Program Requirements

1. Demonstration of acceptable professional performance in field experiences.
2. Those who complete the program must pass all tests required by the Minnesota Board of Teaching to be recommended for licensure.
3. Registration for student teaching requires: a) completion of at least 85% of teaching major courses; b) completion (graded) of all education methods courses; c) satisfactory academic progress, including grades of C- or better in all courses in the teaching major(s); d) acceptable professional performance in field experiences; and e) an approved background check.

### Introductory Course (1 cr)

Music majors register for 1 cr  
[UST 1000](#) - UMD Seminar (1.0 - 2.0 cr)

### Music Core (23 cr)

[MU 100](#) - Recital Hour (0.0 cr)  
[MU 1111](#) - Tonal Harmony I (3.0 cr)  
[MU 1112](#) - Ear-Training and Sight-Singing I (1.0 cr)  
[MU 1121](#) - Tonal Harmony II (3.0 cr)  
[MU 1122](#) - Ear-Training II (1.0 cr)  
[MU 2111](#) - Tonal Harmony III (3.0 cr)  
[MU 2112](#) - Ear-Training III (1.0 cr)  
[MU 2121](#) - Tonal Harmony IV (3.0 cr)  
[MU 2122](#) - Ear-Training, Sight Singing and Improvisation (1.0 cr)  
[MU 2701](#) - Fundamentals of Conducting (1.0 cr)  
[MU 3201](#) - Music History I (3.0 cr)  
[MU 3202](#) - Music History II (3.0 cr)

### Teacher Education Courses (21 cr)

[EDSE 3206](#) - Apprenticeship: Secondary School (2.0 cr)  
[EDSE 4100](#) - Teaching in a Diverse Society (3.0 cr)  
[EDSE 4214](#) - Teaching Content-Area Reading (2.0 cr)  
[EDSE 4501](#) - Adolescent/Adult Development and Learning Theory (3.0 cr)  
[EDUC 1101](#) - Education in Modern Society [LE CAT7, HUMANITIES] (3.0 cr)  
[EDUC 4381](#) - Teaching Indigenous Students (3.0 cr)  
[HLTH 3202](#) - Drug Education (2.0 cr)  
[SPED 1357](#) - Individuals with Disabilities in Society [LE CAT8, LECD CAT08, CDIVERSITY] (3.0 cr)

### Advanced Writing (3 cr)

[WRIT 3110](#) - Advanced Writing: Arts and Letters (3.0 cr)

### SFA Additional Liberal Education Requirement (3 cr)

Three additional credits of SFA Liberal Education course(s) from outside the student's chosen major (art, art history, dance, fine arts, or theatre). A 2-credit DN course may be substituted (art or music students only).

### Student Teaching (13 cr)

Registration for student teaching in the senior year requires: grades of C- or better in all courses in the teaching major(s) and minor(s); completion (graded) of all education block courses; completion of at least 85 percent of teaching major courses. Students must have personal liability insurance while they are working in field placement settings.

[ELED 4650](#) and [EDSE 4600](#) (register each course for 6 credits).  
[ELED 4650](#) - Student Teaching in Individual Subjects: K-8 (1.0 - 6.0 cr)  
[EDSE 4600](#) - Student Teaching (3.0 - 12.0 cr)  
[EDUC 4500](#) - Professional Issues and Ethics (1.0 cr)

## Program Sub-plans

Students are required to complete one of the following sub-plans.

### Instrumental K-12

The B.Mus. in music education Instrumental K-12 is for students planning to teach classroom in instrumental music. Completion of this degree results in the student receiving Minnesota Teacher Licensure, Instrumental Music K-12.



### Instrumental K-12 Courses (25 cr)

- MU 1421 - Piano Class I (1.0 cr)
- MU 1422 - Piano Class II (1.0 cr)
- MU 1441 - Vocal Techniques (1.0 cr)
- MU 1442 - Percussion Techniques (1.0 cr)
- MU 2443 - Woodwind Techniques (1.0 cr)
- MU 2445 - String Techniques (1.0 cr)
- MU 2447 - Brass Techniques (1.0 cr)
- MU 2605 - Introduction to Music Education (1.0 cr)
- MU 3350 - Half-Recital (0.0 cr)
- MU 3606 - Field Experience: Classroom Music Pre K-8 (1.0 cr)
- MU 3607 - Instrumental Music Methods (3.0 cr)
- MU 3608 - Teaching Elementary Music I (2.0 cr)
- MU 3609 - Teaching Elementary Music II (2.0 cr)
- MU 3705 - Instrumental Conducting I (1.0 cr)
- MU 3706 - Instrumental Conducting II (1.0 cr)
- MU 4101 - Instrumental Arranging (2.0 cr)
- MU 1005 - Jazz Studies [LE CAT9, LECD CAT09, FINE ARTS, CDIVERSITY] (3.0 cr)  
or MU 2001 - Ethnic and Folk Music of the World [LE CAT9, LEIP CAT09, FINE ARTS] (3.0 cr)  
or MU 2005 - African Roots of American Music [LE CAT9, LECD CAT09, FINE ARTS] (3.0 cr)
- MU 2110 - Jazz Theory (2.0 cr)  
or MU 3101 - Form and Analysis (2.0 cr)  
or MU 4103 - Contrapuntal Techniques (2.0 cr)  
or MU 5201 - Advanced Music History (2.0 cr)

### Applied Instruction (14 cr)

MU 0100 must be taken concurrently each semester with applied instruction in principal instrument.

Take 14 or more credit(s) from the following:

2 credits each semester

Take 8 or more credit(s) from the following:

•MU 1xxx

•2 credits each semester excluding the student teaching semester.

Take 6 or more credit(s) from the following:

•MU 4xxx

### Ensemble Requirements (7 cr)

1 credit each semester excluding student teaching semester.

Take 4 or more credit(s) from the following:

- MU 1501 - Concert Band [LE CAT10, FINE ARTS] (1.0 cr)
- MU 1502 - Symphonic Wind Ensemble [LE CAT10, LEIP CAT10, FINE ARTS] (1.0 cr)
- MU 1503 - Symphony Orchestra [LE CAT10, LEIP CAT10, FINE ARTS] (1.0 cr)

Take 3 or more credit(s) from the following:

- MU 4501 - Concert Band (1.0 cr)
- MU 4502 - Symphonic Wind Ensemble (1.0 cr)
- MU 4503 - Symphony Orchestra (1.0 cr)

### Additional Ensemble (1 cr)

Take 1 or more credit(s) from the following:

- MU 1504 - Chamber Orchestra [LE CAT10, FINE ARTS] (1.0 cr)
- MU 1505 - Jazz Ensemble [LE CAT10, LECD CAT10, FINE ARTS] (1.0 cr)
- MU 1541 - Chamber Music (1.0 cr)
- MU 4504 - Chamber Orchestra (1.0 cr)
- MU 4505 - Jazz Ensemble (1.0 cr)
- MU 4541 - Chamber Music (1.0 cr)

### Proficiency Exams

Basic piano proficiency; advanced proficiency in principal instrument.

### Vocal K-12

The B.Mus. in music education Vocal K-12 is for students planning to teach classroom in vocal music. Completion of this degree results in the student receiving Minnesota Teacher Licensure, Vocal Music K-12.

### Vocal K-12 Courses (22 cr)

- MU 1411 - Diction: Italian and English (1.0 cr)
- MU 1421 - Piano Class I (1.0 cr)
- MU 1422 - Piano Class II (1.0 cr)
- MU 1440 - Survey of Instrumental Techniques (1.0 cr)
- MU 1441 - Vocal Techniques (1.0 cr)



- MU 2605 - Introduction to Music Education (1.0 cr)  
MU 3606 - Field Experience: Classroom Music Pre K-8 (1.0 cr)  
MU 3608 - Teaching Elementary Music I (2.0 cr)  
MU 3609 - Teaching Elementary Music II (2.0 cr)  
MU 3701 - Choral Conducting and Methods I (3.0 cr)  
MU 3702 - Choral Conducting and Methods II (3.0 cr)  
MU 3350 - Half-Recital (0.0 cr)  
MU 2110 - Jazz Theory (2.0 cr)  
or MU 3101 - Form and Analysis (2.0 cr)  
or MU 4103 - Contrapuntal Techniques (2.0 cr)  
or MU 5201 - Advanced Music History (2.0 cr)  
MU 1005 - Jazz Studies [LE CAT9, LECD CAT09, FINE ARTS, CDIVERSITY] (3.0 cr)  
or MU 2001 - Ethnic and Folk Music of the World [LE CAT9, LEIP CAT09, FINE ARTS] (3.0 cr)  
or MU 2005 - African Roots of American Music [LE CAT9, LECD CAT09, FINE ARTS] (3.0 cr)

**Applied Instruction (18 cr)**

MU 0100 must be taken concurrently each semester with applied instruction in principal instrument.

**Voice, Principal Instrument**

MU 1311 (total of 8 cr); MU 1322 (total of 4 cr); MU 4311 (total of 6 cr).

MU 1311 - Voice-Major (2.0 - 3.0 cr)

MU 1322 - Piano-Non Major (1.0 cr)

MU 4311 - Voice-Major (2.0 - 3.0 cr)

**or Keyboard, Principal Instrument**

Must pass advanced standing into voice. MU 1312 (total of 4 cr); MU 1321 (total of 8 cr); MU 4321 (total of 6 cr).

MU 1312 - Voice-Non Major (1.0 cr)

MU 1321 - Piano-Major (2.0 - 3.0 cr)

MU 4321 - Piano-Major (2.0 - 3.0 cr)

**or Instrumental, Principal Instrument**

Must pass advanced standing into voice. MU 1312 for a total of 2 cr; MU 1322 for a total of 2 cr.

MU 1312 - Voice-Non Major (1.0 cr)

MU 1322 - Piano-Non Major (1.0 cr)

Two credits of principal instrument each semester.

Take 8 or more credit(s) from the following:

- MU 1xxx

Two credits of principal instrument each semester excluding the student teaching semester.

Take 6 or more credit(s) from the following:

- MU 4xxx

**Ensemble Requirements (8 cr)**

Take 1 credit each semester excluding the student teaching semester.

Take 4 or more credit(s) from the following:

•MU 1510 - Concert Chorale [LE CAT10, FINE ARTS] (1.0 cr)

•MU 1511 - University Singers [LE CAT10, LEIP CAT10, FINE ARTS] (1.0 cr)

**Ensemble - 4xxx**

1 credit each semester excluding the student teaching semester: MU 4510, MU 4511.

Take 3 or more credit(s) from the following:

•MU 4510 - Concert Chorale (1.0 cr)

•MU 4511 - University Singers (1.0 cr)

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

•MU 3510 - Opera Studio (1.0 cr)

•MU 4512 - Chamber Singers (1.0 cr)

•MU 4513 - Vocal Jazz Ensemble (1.0 cr)

**Proficiency Exams**

Basic piano proficiency; advanced piano proficiency; advanced proficiency in principal instrument.



## Duluth Campus

# Music Minor

Music

## School of Fine Arts

- Program Type: Undergraduate minor related to major
- Requirements for this program are current for Fall 2016
- Required credits in this minor: 25

The minor in music is designed to offer additional study to students with a background and interest in music.

## Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

## Minor Requirements

### Applied Instruction (4 cr)

Students must take MU 100 every semester in which they take applied instruction, to a total of 4 semesters.

[MU 100](#) - Recital Hour (0.0 cr)

1 credit of a principal instrument each semester

Take 4 or more credit(s) from the following:

- MU 1xxx

### Music Minor Courses (21 cr)

[MU 1111](#) - Tonal Harmony I (3.0 cr)

[MU 1112](#) - Ear-Training and Sight-Singing I (1.0 cr)

[MU 1121](#) - Tonal Harmony II (3.0 cr)

[MU 1122](#) - Ear-Training II (1.0 cr)

[MU 3201](#) - Music History I (3.0 cr)

[MU 3202](#) - Music History II (3.0 cr)

Ensembles (4 cr)

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

- [MU 1005](#) - Jazz Studies [LE CAT9, LECD CAT09, FINE ARTS, CDIVERSITY] (3.0 cr)
- [MU 2001](#) - Ethnic and Folk Music of the World [LE CAT9, LEIP CAT09, FINE ARTS] (3.0 cr)
- [MU 2003](#) - Survey of American Music [LE CAT9, FINE ARTS] (3.0 cr)
- [MU 2005](#) - African Roots of American Music [LE CAT9, LECD CAT09, FINE ARTS] (3.0 cr)

### **Duluth Campus**

## **Performance B.Mus.**

*Music*

### **School of Fine Arts**

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 120 to 124
- Required credits within the major: 90 to 98
- Degree: Bachelor of Music

The B.Mus. in performance is for students pursuing programs of intensive study to prepare for professional careers in music and/or acceptance into a graduate degree program. Students are assisted in acquiring high quality performance artistry and comprehensive and advanced historical and theoretical knowledge of musical styles, genres, and pedagogy.

Department Honors Requirements: Candidates, nominated by music department faculty, receive honors for distinguished achievement in musical performance, composition, or exceptional ability and accomplishment as a music educator.

### **Program Delivery**

This program is available:

- via classroom (the majority of instruction is face-to-face)

### **Admission Requirements**

Freshman and transfer students are usually admitted to pre-major status before admission to this major

A GPA above 2.0 is preferred for the following:

- 2.50 transferring from outside the University

Students must pass a performance audition to be accepted into any music degree program. At the time of the audition, students must also complete diagnostic examinations in theory, aural, and keyboard skills, and an interview with the department head or an appointed designee. Any student who receives provisional acceptance into a degree program must pass a review (usually at the end of the first semester) to receive full acceptance. That review includes recommendations of major instructors and successful completion of an applied jury.

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

### **General Requirements**

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.



## Program Requirements

1. Elective credits, other than those required in the major, may be taken from any UMD unit.
2. Courses with grades less than C- will not count toward the major.

### Introductory Course (1 cr)

Music majors register for 1 credit.

[UST 1000](#) - UMD Seminar (1.0 - 2.0 cr)

### Music Core (23 cr)

[MU 100](#) - Recital Hour (0.0 cr)

[MU 1111](#) - Tonal Harmony I (3.0 cr)

[MU 1112](#) - Ear-Training and Sight-Singing I (1.0 cr)

[MU 1121](#) - Tonal Harmony II (3.0 cr)

[MU 1122](#) - Ear-Training II (1.0 cr)

[MU 2111](#) - Tonal Harmony III (3.0 cr)

[MU 2112](#) - Ear-Training III (1.0 cr)

[MU 2121](#) - Tonal Harmony IV (3.0 cr)

[MU 2122](#) - Ear-Training, Sight Singing and Improvisation (1.0 cr)

[MU 2701](#) - Fundamentals of Conducting (1.0 cr)

[MU 3201](#) - Music History I (3.0 cr)

[MU 3202](#) - Music History II (3.0 cr)

### Advanced Writing (3 cr)

[WRIT 3110](#) - Advanced Writing: Arts and Letters (3.0 cr)

### SFA Additional Liberal Education Requirement (3 cr)

Three additional credits of SFA Liberal Education course(s) from outside the student's chosen major (art, art history, dance, fine arts or theatre). A 2-credit DN course may be substituted (art or music students only).

## Program Sub-plans

Students are required to complete one of the following sub-plans.

### Band/Orchestral Instruments

The band/orchestral instruments emphasis prepares students for a career as a professional musician and for acceptance into a graduate degree program in music. The emphasis assists students in acquiring high quality performance artistry and provides students with advanced historical and theoretical knowledge of music.

### Major Course Requirements (27 cr)

[MU 3991](#) 2 credits in one semester.

[MU 4601](#) for a total of 2 credits.

Participation in [MU 1505](#) or [MU 4505](#) is strongly recommended in addition to the required ensembles.

[MU 1421](#) - Piano Class I (1.0 cr)

[MU 1422](#) - Piano Class II (1.0 cr)

[MU 3300](#) - Junior Recital (1.0 cr)

[MU 3705](#) - Instrumental Conducting I (1.0 cr)

[MU 3706](#) - Instrumental Conducting II (1.0 cr)

[MU 3991](#) - Independent Study (1.0 - 3.0 cr)

[MU 4101](#) - Instrumental Arranging (2.0 cr)

[MU 4300](#) - Senior Recital (1.0 cr)

[MU 4601](#) - Applied Music Teaching (1.0 cr)

[MU 5201](#) - Advanced Music History (2.0 cr)

Take 4 or more credit(s) from the following:

•[MU 1515](#) - Percussion Ensemble (1.0 cr)

•[MU 1541](#) - Chamber Music (1.0 cr)

Take 4 or more credit(s) from the following:

•[MU 4515](#) - Percussion Ensemble (1.0 cr)

•[MU 4541](#) - Chamber Music (1.0 cr)

[MU 1005](#) - Jazz Studies [LE CAT9, LECD CAT09, FINE ARTS, CDIVERSITY] (3.0 cr)

or [MU 2001](#) - Ethnic and Folk Music of the World [LE CAT9, LEIP CAT09, FINE ARTS] (3.0 cr)

or [MU 2005](#) - African Roots of American Music [LE CAT9, LECD CAT09, FINE ARTS] (3.0 cr)

[MU 2110](#) - Jazz Theory (2.0 cr)

- or MU 3101 - Form and Analysis (2.0 cr)  
or MU 4103 - Contrapuntal Techniques (2.0 cr)

**Applied Instruction (25 cr)**

MU 0100 must be taken concurrently each semester with applied instruction in principal instrument.  
Take 25 or more credit(s) from the following:

**Applied Instruction - 13xx**

2 credit first semester, 3 credits each subsequent semester.

Take 11 or more credit(s) from the following:

- MU 1xxx

**Applied Instruction - 43xx**

3 credits each semester.

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

- MU 4xxx

**Applied Instruction Secondary Instrument**

Take 2 or more credit(s) from the following:

- MU 1322 - Piano-Non Major (1.0 cr)

**Ensemble Requirements (8 cr)**

Take 1 credit each semester.

Take 8 or more credit(s) from the following:

Take 4 or more credit(s) from the following:

- MU 1501 - Concert Band [LE CAT10, FINE ARTS] (1.0 cr)
- MU 1502 - Symphonic Wind Ensemble [LE CAT10, LEIP CAT10, FINE ARTS] (1.0 cr)
- MU 1503 - Symphony Orchestra [LE CAT10, LEIP CAT10, FINE ARTS] (1.0 cr)
- MU 1504 - Chamber Orchestra [LE CAT10, FINE ARTS] (1.0 cr)
- Take 4 or more credit(s) from the following:
  - MU 4501 - Concert Band (1.0 cr)
  - MU 4502 - Symphonic Wind Ensemble (1.0 cr)
  - MU 4503 - Symphony Orchestra (1.0 cr)
  - MU 4504 - Chamber Orchestra (1.0 cr)

**Proficiency Exams**

Basic piano, advanced proficiency in principal instrument.

**Keyboard**

The keyboard emphasis prepares students for a career as a professional musician and for acceptance into graduate study in performance or accompanying and coaching. It assists students in acquiring high quality artistry as a performing keyboard musician both in solo and collaborative situations, and providing students with advanced historical and theoretical knowledge of diverse repertoire and styles. The emphasis also assists students in becoming effective piano teachers at all levels, ages, and group settings.

**Major Course Requirements (25 cr)**

- MU 3300 - Junior Recital (1.0 cr)
- MU 3627 - Art of Accompanying: Vocal Music (2.0 cr)
- MU 3628 - Art of Accompanying: Instrumental Music (2.0 cr)
- MU 4201 - Piano Literature (3.0 cr)
- MU 4300 - Senior Recital (1.0 cr)
- MU 4621 - Piano Pedagogy and Practicum I (2.0 cr)
- MU 4622 - Piano Pedagogy and Practicum II (2.0 cr)
- MU 4623 - Piano Techniques and Style (3.0 cr)
- MU 5201 - Advanced Music History (2.0 cr)
- MU 1005 - Jazz Studies [LE CAT9, LECD CAT09, FINE ARTS, CDIVERSITY] (3.0 cr)
- or MU 2001 - Ethnic and Folk Music of the World [LE CAT9, LEIP CAT09, FINE ARTS] (3.0 cr)
- or MU 2005 - African Roots of American Music [LE CAT9, LECD CAT09, FINE ARTS] (3.0 cr)

Take 4 or more credit(s) from the following:

- MU 2110 - Jazz Theory (2.0 cr)
- MU 3101 - Form and Analysis (2.0 cr)
- MU 4103 - Contrapuntal Techniques (2.0 cr)

**Applied Instruction Piano (23 cr)**

MU 100 must be taken concurrently with applied piano each semester.

Take 23 or more credit(s) from the following:

2 credits first semester, 3 credits each subsequent semester.

Take 11 or more credit(s) from the following:

- MU 1321 - Piano-Major (2.0 - 3.0 cr)

•3 credits each semester

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

- MU 4321 - Piano-Major (2.0 - 3.0 cr)

**Ensemble Requirements (12 cr)**

Take a minimum of 1 credit each semester from the following:

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

Take 4 or more credit(s) from the following:

- MU 1501 - Concert Band [LE CAT10, FINE ARTS] (1.0 cr)
- MU 1502 - Symphonic Wind Ensemble [LE CAT10, LEIP CAT10, FINE ARTS] (1.0 cr)
- MU 1503 - Symphony Orchestra [LE CAT10, LEIP CAT10, FINE ARTS] (1.0 cr)
- MU 1505 - Jazz Ensemble [LE CAT10, LECD CAT10, FINE ARTS] (1.0 cr)
- MU 1510 - Concert Chorale [LE CAT10, FINE ARTS] (1.0 cr)
- MU 1511 - University Singers [LE CAT10, LEIP CAT10, FINE ARTS] (1.0 cr)
- MU 1512 - Chamber Singers [LE CAT10, FINE ARTS] (1.0 cr)
- MU 1513 - Vocal Jazz Ensemble [LE CAT10, LECD CAT10, FINE ARTS] (1.0 cr)

•Take 4 or more credit(s) from the following:

- MU 4501 - Concert Band (1.0 cr)
- MU 4502 - Symphonic Wind Ensemble (1.0 cr)
- MU 4503 - Symphony Orchestra (1.0 cr)
- MU 4505 - Jazz Ensemble (1.0 cr)
- MU 4510 - Concert Chorale (1.0 cr)
- MU 4511 - University Singers (1.0 cr)
- MU 4512 - Chamber Singers (1.0 cr)
- MU 4513 - Vocal Jazz Ensemble (1.0 cr)

•**Additional Ensemble**

Take 4 or more credit(s) from the following:

- MU 1504 - Chamber Orchestra [LE CAT10, FINE ARTS] (1.0 cr)
- MU 1515 - Percussion Ensemble (1.0 cr)
- MU 3510 - Opera Studio (1.0 cr)
- MU 4504 - Chamber Orchestra (1.0 cr)
- MU 4515 - Percussion Ensemble (1.0 cr)
- MU 4541 - Chamber Music (1.0 cr)

**Proficiency Exams**

Basic piano, advanced piano, advanced proficiency in principal instrument.

**Vocal**

The vocal emphasis prepares students for careers as professional classical singers or for acceptance into graduate degree programs.

**Major Course Requirements (36 cr)**

MU 1322 for a total of 2 credits, and MU 3510 for a total of 4 credits.

- MU 1322 - Piano-Non Major (1.0 cr)
- MU 1411 - Diction: Italian and English (1.0 cr)
- MU 1412 - Diction: German (1.0 cr)
- MU 1413 - Diction: French (1.0 cr)
- MU 1421 - Piano Class I (1.0 cr)
- MU 1422 - Piano Class II (1.0 cr)
- MU 1441 - Vocal Techniques (1.0 cr)
- MU 3211 - Art Song Literature (2.0 cr)
- MU 3212 - Opera Literature (2.0 cr)
- MU 3300 - Junior Recital (1.0 cr)
- MU 3510 - Opera Studio (1.0 cr)
- MU 3703 - Choral Conducting (1.0 cr)
- MU 4300 - Senior Recital (1.0 cr)
- MU 4600 - Vocal Pedagogy (1.0 cr)
- MU 4601 - Applied Music Teaching (1.0 cr)
- MU 5201 - Advanced Music History (2.0 cr)

Take 3 or more credit(s) from the following:

- MU 1005 - Jazz Studies [LE CAT9, LECD CAT09, FINE ARTS, CDIVERSITY] (3.0 cr)
- MU 2001 - Ethnic and Folk Music of the World [LE CAT9, LEIP CAT09, FINE ARTS] (3.0 cr)
- MU 2005 - African Roots of American Music [LE CAT9, LECD CAT09, FINE ARTS] (3.0 cr)

Take 8 or more credit(s) from the following:

- FR 1101 - Beginning French I [LE CAT3, COMM & LAN] (4.0 cr)
- FR 1102 - Beginning French II [LE CAT3, COMM & LAN] (4.0 cr)
- FR 1201 - Intermediate French I [LE CAT3, COMM & LAN] (4.0 cr)
- FR 1202 - Intermediate French II [LE CAT3, LEIP CAT03, COMM & LAN] (4.0 cr)
- GER 1101 - Beginning German I [LE CAT3, COMM & LAN] (4.0 cr)
- GER 1102 - Beginning German II [LE CAT3, COMM & LAN] (4.0 cr)
- GER 1201 - Intermediate German I [LE CAT3, COMM & LAN] (4.0 cr)
- GER 1202 - Intermediate German II [LE CAT3, LEIP CAT03, COMM & LAN] (4.0 cr)



Take 2 or more credit(s) from the following:

- MU 2110 - Jazz Theory (2.0 cr)
- MU 3101 - Form and Analysis (2.0 cr)
- MU 4103 - Contrapuntal Techniques (2.0 cr)

**Applied Instruction Voice (23 cr)**

MU 0100 must be taken concurrently each semester with applied voice.

Take 23 or more credit(s) from the following:

2 credit first semester, 3 credits each subsequent semester.

Take 11 or more credit(s) from the following:

- MU 1311 - Voice-Major (2.0 - 3.0 cr)

•3 credits each semester.

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

- MU 4311 - Voice-Major (2.0 - 3.0 cr)

**Ensemble Requirement (9 cr)**

Take one credit each semester from the following:

Take 4 or more credit(s) from the following:

- MU 1510 - Concert Chorale [LE CAT10, FINE ARTS] (1.0 cr)
- MU 1511 - University Singers [LE CAT10, LEIP CAT10, FINE ARTS] (1.0 cr)

Take 4 or more credit(s) from the following:

- MU 4510 - Concert Chorale (1.0 cr)
- MU 4511 - University Singers (1.0 cr)

**Additional Ensemble**

Take 1 or more credit(s) from the following:

- MU 1510 - Concert Chorale [LE CAT10, FINE ARTS] (1.0 cr)
- MU 1511 - University Singers [LE CAT10, LEIP CAT10, FINE ARTS] (1.0 cr)
- MU 1512 - Chamber Singers [LE CAT10, FINE ARTS] (1.0 cr)
- MU 1513 - Vocal Jazz Ensemble [LE CAT10, LECD CAT10, FINE ARTS] (1.0 cr)
- MU 4510 - Concert Chorale (1.0 cr)
- MU 4511 - University Singers (1.0 cr)
- MU 4512 - Chamber Singers (1.0 cr)
- MU 4513 - Vocal Jazz Ensemble (1.0 cr)

**Proficiency Exams**

Basic piano, advanced proficiency in principal instrument.



### **Duluth Campus**

## **Photography Minor**

*UMD Art and Design, Dept of*

### **School of Fine Arts**

- Program Type: Undergraduate free-standing minor
- Requirements for this program are current for Fall 2016
- Required credits in this minor: 27

The photography minor provides experience with digital, film, and alternative photographic processes. Students learn the principles of design and composition and are introduced to theory and issues in visual communication and study the history of photography and visual communication.

## **Program Delivery**

This program is available:

- via classroom (the majority of instruction is face-to-face)

## **Minor Requirements**

### **Minor Courses (21 cr)**

- [ART 1013](#) - 2-D Digital Design (3.0 cr)
- [ART 1900](#) - Visual Literacy [LE CAT9, FINE ARTS] (3.0 cr)
- [ART 2600](#) - Photography I (3.0 cr)
- [ART 3600](#) - Photography: Alternative Processes (3.0 cr)
- [ART 4600](#) - Photography: Digital Portfolio (3.0 cr)
- [ART 4675](#) - Photography: The Photographic Book (3.0 cr)
- [ARTH 2620](#) - History of Photography (3.0 cr)

### **Electives (6 cr)**

Take 1 or more course(s) totaling 6 or more credit(s) from the following:

- [ART 3615](#) - Photography: Inventing with Light (3.0 cr)
- [ART 4600](#) - Photography: Digital Portfolio (3.0 cr)
- [ART 4650](#) - Alternative Processes Portfolio (3.0 cr)

## Duluth Campus

### Studio Art B.F.A.

UMD Art and Design, Dept of

#### School of Fine Arts

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 120
- Required credits within the major: 74 to 83
- Degree: Bachelor of Fine Arts

Studio art majors are encouraged to develop a strong personal creative direction in one or more of the studio areas housed within the department. Exploration and experimentation across a range of mediums is possible in an environment that fosters a cross-disciplined approach to form and image making. Traditional studio practices share equal footing with new and emerging technologies in an effort to best prepare the studio major for the field. Theoretical, historical, and conceptual foundations are provided through offerings in art history and seminars.

Students must select an emphasis in general studio, digital art and photography, painting, drawing and printmaking, or sculpture and ceramics.

Department Honors Requirements: Candidates, nominated by art and design department faculty, receive honors for distinguished achievement demonstrated in part by the senior student exhibition or a senior presentation or project. Students produce a body of work for the Senior Exhibition under the mentorship of faculty in their emphasis area. Work proposed for the solo or group senior exhibition will be reviewed and approved by studio faculty in their area during a Senior Portfolio Review.

## Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

## Admission Requirements

Freshman and transfer students are admitted to pre-major status before admission to this major. To qualify for this program, pre-studio art students must pass a portfolio review (ART 0902) after completing a minimum of 9 art studio credits selected from the pre-studio core. Additionally, students must have a minimum 2.00 GPA overall and in art and design courses. The review is scheduled for both fall and spring semester and occurs approximately midway through the semester. Students must submit a portfolio of selected work derived from their art core courses. Portfolios are reviewed by the studio art faculty. Specific guidelines for preparation of the portfolio contents and dates for review will be distributed at the beginning of each semester.

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

### Required prerequisites

#### Introductory Course (1 cr)

[UST 1000](#) - UMD Seminar (1.0 - 2.0 cr)

#### Pre-Studio Core Requirements (12 cr)

Note: Studio Art Portfolio Review (ART 902) requires a 2.00 overall GPA and in art and art history courses.

Note: ART 1010, 1011, 1012, and 1013 may be taken either semester of the first year. They are not sequential.

[ART 902](#) - Studio Art Portfolio Review (0.0 cr)

[ART 1010](#) - Drawing I (3.0 cr)

[ART 1011](#) - 2-D Design (3.0 cr)

[ART 1012](#) - 3-D Design (3.0 cr)

[ART 1013](#) - 2-D Digital Design (3.0 cr)

## General Requirements

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.

2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

## Program Requirements

1. Emphasis in general studio, digital art and photography, painting, drawing and printmaking, or sculpture and ceramics.
2. Attendance at two visual lectures per semester (fall and spring).

### SFA Additional Liberal Education Requirement (3 cr)

Three credits of SFA Liberal Education courses from outside the student's chosen major (Dance, Fine Arts, Music or Theatre). MU 15xx ensembles must be repeated once each semester for a total of 3 credits (may require audition). A 2-credit DN course may be substituted (Art or Music students only).

### Advanced Writing Requirement (3 cr)

[WRIT 3110](#) - Advanced Writing: Arts and Letters (3.0 cr)  
or [WRIT 4230](#) - Web Design and Digital Culture (3.0 cr)  
or [WRIT 4250](#) - New Media Writing (3.0 cr)

### Studio Art Required Courses (10 cr)

[ART 1900](#) - Visual Literacy [LE CAT9, FINE ARTS] (3.0 cr)  
[ART 4812](#) - Senior Seminar (3.0 cr)  
[ART 4813](#) - Senior Seminar II: Studio Practice (3.0 cr)  
[ART 4899](#) - Senior Presentation/Exhibition (1.0 cr)

## Program Sub-plans

Students are required to complete one of the following sub-plans.

### Digital Art and Photography

51 credits within the subplan. Digital art and photography emphasis is for students seeking a focused course of study in contemporary digital art and in traditional and digital photography.

### Emphasis Courses (15 cr)

[ART 2016](#) - Digital Arts: Mixed-Media Studio (3.0 cr)  
[ART 2030](#) - Digital Arts: Time-based Media (3.0 cr)  
[ART 2040](#) - Digital Filmmaking: Visual Narratives (3.0 cr)  
[ART 2600](#) - Photography I (3.0 cr)  
[ART 3600](#) - Photography: Alternative Processes (3.0 cr)  
or [ART 4600](#) - Photography: Digital Portfolio (3.0 cr)

### Studio Electives (9 cr)

Select courses from outside the emphasis area.

Take 9 or more credit(s) from the following:

- ART 2xxx

### Upper Level Studio Electives (15 cr)

Take 15 or more credit(s) from the following:

- [ART 2014](#) - 3-D Digital Studio I (3.0 cr)
- [ART 2018](#) - Digital Arts: Interactive Media (3.0 cr)
- [ART 2907](#) - Typography I (3.0 cr)
- [ART 3031](#) - Digital Arts: Installation and Collaborative Media (3.0 cr)
- [ART 3040](#) - Digital Filmmaking: Experimental Techniques (3.0 cr)



- ART 3214 - Sculpture II: Robotics and Physical Computing (3.0 cr)
- ART 3615 - Photography: Inventing with Light (3.0 cr)
- ART 4016 - Digital Arts: Advanced Projects (3.0 cr)
- ART 4040 - Digital Filmmaking: Advanced Projects (3.0 cr)
- ART 4091 - Individual Study in Electronic Arts (1.0 - 3.0 cr)
- ART 4600 - Photography: Digital Portfolio (3.0 cr)
- ART 4650 - Alternative Processes Portfolio (3.0 cr)
- ART 4675 - Photography: The Photographic Book (3.0 cr)
- ART 4691 - Individual Study in Photography (1.0 - 3.0 cr)
- ART 4793 - Intermedia Studio (1.0 - 3.0 cr)

#### Art History Requirements (9 cr)

- ARTH 1304 - History of World Art II [LE CAT9, LEIP CAT09, HUMANITIES] (3.0 cr)
- ARTH 2620 - History of Photography (3.0 cr)
- ARTH 1303 - History of World Art I [LE CAT9, HUMANITIES, GLOBAL PER] (3.0 cr)  
or ARTH 1305 - Survey of Non-Western Art [HUMANITIES, GLOBAL PER] (3.0 cr)

#### Art History Electives (3 cr)

Take 3 or more credit(s) from the following:

- ARTH 2390 - American Art of the 20th Century [LE CAT9, LECD CAT09, HUMANITIES, CDIVERSITY] (3.0 cr)
- ARTH 2901 - History of Graphic Design (3.0 cr)
- ARTH 3130 - Modern and Contemporary Mexican Art (3.0 cr)
- ARTH 3140 - Women in Art/Visual Culture in Latin America (3.0 cr)
- ARTH 3150 - Contemporary Global Exhibition (3.0 cr)
- TH 2851 - Film History (3.0 cr)

#### Final Project

Seniors prepare and present a solo or joint exhibition in the Tweed Museum of Art while enrolled in ART 4899.

#### General Studio

54 credits within subplan. General studio emphasis is for students seeking a broad yet intensive course of study in traditional studio art and contemporary digital art discipline.

#### Emphasis Courses (6 cr)

- ART 3700 - Drawing II (3.0 cr)
- ART 4700 - Drawing III (3.0 cr)

#### Studio Electives (18 cr)

Take 6 or more course(s) totaling 18 or more credit(s) from the following:

- ART 2014 - 3-D Digital Studio I (3.0 cr)
- ART 2016 - Digital Arts: Mixed-Media Studio (3.0 cr)
- ART 2018 - Digital Arts: Interactive Media (3.0 cr)
- ART 2030 - Digital Arts: Time-based Media (3.0 cr)
- ART 2100 - Painting I (3.0 cr)
- ART 2200 - Sculpture I (3.0 cr)
- ART 2400 - Ceramics I (3.0 cr)
- ART 2500 - Jewelry and Metals I (3.0 cr)
- ART 2600 - Photography I (3.0 cr)
- ART 2300 - Printmaking I: Intaglio, Relief (3.0 cr)  
or ART 2301 - Printmaking I: Litho, Screen (3.0 cr)

#### Art Electives (6 cr)

Take 6 or more credit(s) from the following:

- ART 1xxx
- ART 2xxx
- ART 3xxx
- ART 4xxx
- ART 5xxx

#### Additional Studio Electives (12 cr)

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

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

- ART 3xxx
- ART 4xxx

#### Art History (9 cr)

- ARTH 1304 - History of World Art II [LE CAT9, LEIP CAT09, HUMANITIES] (3.0 cr)
- ARTH 2300 - The City as a Work of Art [LE CAT9, LEIP CAT09, HUMANITIES] (3.0 cr)
- ARTH 1303 - History of World Art I [LE CAT9, HUMANITIES, GLOBAL PER] (3.0 cr)  
or ARTH 1305 - Survey of Non-Western Art [HUMANITIES, GLOBAL PER] (3.0 cr)

#### ArtH Electives (3 cr)

Take 3 or more credit(s) from the following:



- ARTH 1xxx
- ARTH 2xxx
- ARTH 3xxx
- ARTH 4xxx
- ARTH 5xxx

#### Final Project

Seniors prepare and present a solo or joint exhibition in the Tweed Museum of Art while enrolled in ART 4899.

#### Painting, Drawing and Printmaking

51 credits within the subplan. Painting, drawing, and printmaking emphasis is for students seeking a focused course of study in the two dimensional disciplines of painting, drawing, and printmaking.

#### Emphasis Courses (24 cr)

- ART 2100 - Painting I (3.0 cr)
- ART 2300 - Printmaking I: Intaglio, Relief (3.0 cr)
- ART 2301 - Printmaking I: Litho, Screen (3.0 cr)
- ART 3100 - Painting II (3.0 cr)
- ART 3300 - Printmaking II (3.0 cr)
- ART 3700 - Drawing II (3.0 cr)
- ART 4100 - Painting III (3.0 cr)
- ART 3715 - Figure Drawing (3.0 cr)  
or ART 4700 - Drawing III (3.0 cr)

#### Studio Electives (9 cr)

Take 9 credits selected from courses outside the Emphasis area:

Take 9 or more credit(s) from the following:

- ART 2xxx

#### Upper Level Studio Electives (6 cr)

Courses in painting, drawing, or printmaking or ART 5793 Intermedia Studio Problems

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

- ART 3xxx
- ART 4xxx

#### Art History Requirements (9 cr)

- ARTH 1304 - History of World Art II [LE CAT9, LEIP CAT09, HUMANITIES] (3.0 cr)
- ARTH 2390 - American Art of the 20th Century [LE CAT9, LECD CAT09, HUMANITIES, CDIVERSITY] (3.0 cr)
- ARTH 1303 - History of World Art I [LE CAT9, HUMANITIES, GLOBAL PER] (3.0 cr)  
or ARTH 1305 - Survey of Non-Western Art [HUMANITIES, GLOBAL PER] (3.0 cr)

#### Art History Electives (3 cr)

Take 3 or more credit(s) from the following:

- ARTH 2xxx
- ARTH 3xxx
- ARTH 4xxx

#### Final Project

Seniors prepare and present a solo or joint exhibition in the Tweed Museum of Art while enrolled in ART 4899.

#### Sculpture and Ceramics

45 credits within the subplan. Sculpture and ceramics emphasis is for students seeking a focused course of study in the three-dimensional disciplines of sculpture and ceramics. Traditional and contemporary digital course work are included in the emphasis.

#### Emphasis Courses (15 cr)

- ART 2014 - 3-D Digital Studio I (3.0 cr)
- ART 2200 - Sculpture I (3.0 cr)
- ART 2400 - Ceramics I (3.0 cr)
- ART 3200 - Sculpture II (3.0 cr)
- ART 3400 - Ceramics II (3.0 cr)

#### Studio Electives (9 cr)

Select courses from outside the emphasis area.

Take 9 or more credit(s) from the following:

- ART 2xxx

#### Upper Level Studio Electives (9 cr)

Take 3 or more course(s) totaling 9 or more credit(s) from the following:

- ART 3214 - Sculpture II: Robotics and Physical Computing (3.0 cr)
- ART 3425 - Ceramics II Wheel Throwing (3.0 cr)
- ART 4200 - Sculpture III (3.0 cr)
- ART 4400 - Ceramics III (3.0 cr)
- ART 4291 - Individual Study in Sculpture (1.0 - 3.0 cr)



- ART 4491 - Individual Study in Ceramics (1.0 - 3.0 cr)

**Art History Requirements (9 cr)**

ARTH 1304 - History of World Art II [LE CAT9, LEIP CAT09, HUMANITIES] (3.0 cr)

ARTH 2390 - American Art of the 20th Century [LE CAT9, LECD CAT09, HUMANITIES, CDIVERSITY] (3.0 cr)

ARTH 1303 - History of World Art I [LE CAT9, HUMANITIES, GLOBAL PER] (3.0 cr)

or ARTH 1305 - Survey of Non-Western Art [HUMANITIES, GLOBAL PER] (3.0 cr)

**Art History Electives (3 cr)**

Take 3 or more credit(s) from the following:

•ARTH 2xxx

•ARTH 3xxx

•ARTH 4xxx

**Additional Electives (6 cr)**

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

•ART 1814 - Creating Across Cultures [LE CAT9, LECD CAT09, FINE ARTS, CDIVERSITY] (3.0 cr)

•ART 3xxx

•ART 4xxx

**Final Project**

Seniors prepare and present a solo or joint exhibition in the Tweed Museum of Art while enrolled in ART 4899.

**Duluth Campus**  
**Theatre B.A.**  
*Theatre*  
**School of Fine Arts**

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 120
- Required credits within the major: 66
- Degree: Bachelor of Arts

The BA in theatre offers broad, liberal arts study in theatre arts complemented by courses from across the University curriculum. Required courses in the major give students a strong core of theatre knowledge and experience. Students are urged to broaden their study by selecting a minor or second major in literature, culture, language, the social sciences, or the arts as appropriate to their career goals and in consultation with their academic adviser.

### Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

### Admission Requirements

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

### General Requirements

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

### Program Requirements

Minor or a second major in another field of study.

#### Introductory Course (1 cr)

[UST 1000](#) - UMD Seminar (1.0 - 2.0 cr)

#### Core Courses (36 cr)

[TH 1031](#) - Introduction to Theatrical Design (3.0 cr)

[TH 1299](#) - Theatre Marketing/Management Practicum (2.0 cr)

[TH 1301](#) - Stagecraft (5.0 cr)

[TH 1401](#) - Costume Construction I (5.0 cr)

[TH 1599](#) - Lighting/Sound Practicum (1.0 cr)

[TH 1699](#) - Running Crew Practicum (2.0 cr)



TH 1801 - Elements of Theatre (3.0 cr)  
TH 2801 - Play Analysis: Dramatic Theory and Theatre Research (3.0 cr)  
TH 3201 - Stage Direction (3.0 cr)  
TH 4801 - History of the Theatre I [HUMANITIES] (3.0 cr)  
TH 4802 - History of the Theatre II (3.0 cr)  
TH 1111 - Introduction to Acting [LE CAT10, FINE ARTS] (3.0 cr)  
or TH 1112 - Acting I (3.0 cr)

**BA Requirements (8 cr)**

TH 2399 - Production Practicum II (1.0 cr)  
TH 2841 - The Theatre Experience (3.0 cr)  
TH 3399 - Production Practicum III (1.0 cr)  
TH 4841 - Creative Collaboration (3.0 cr)

**Theatre Electives (15 cr)**

Take 15 or more credit(s) from the following:

- TH 1051 - Introduction to Film [LE CAT9, FINE ARTS] (3.0 cr)
- TH 1053 - Film and Society [LE CAT9] (3.0 cr)
- TH 1116 - Audition Techniques I (2.0 cr)
- TH 1118 - Voice and Movement for the Actor (3.0 cr)
- TH 1351 - Stage Rendering Techniques (3.0 cr)
- TH 1451 - Stage Makeup (3.0 cr)
- TH 1551 - Sound Design (3.0 cr)
- TH 1601 - Stage Management (3.0 cr)
- TH 2400 - Survey of the History of Costume (3.0 cr)
- TH 2851 - Film History (3.0 cr)
- TH 3111 - Introduction to Scene Study (3.0 cr)
- TH 3112 - Acting IV: Improvisation (3.0 cr)
- TH 3171 - Acting V: Character/Masks (3.0 cr)
- TH 3301 - Stagecraft II (3.0 cr)
- TH 3331 - Scenic Design I (3.0 cr)
- TH 3341 - Properties Construction (3.0 cr)
- TH 3371 - Scene Painting (3.0 cr)
- TH 3871 - Playwriting [LE CAT9, FINE ARTS] (3.0 cr)
- TH 3995 - Special Topics: (Various Titles to be Assigned) (1.0 - 3.0 cr)

**Advanced Writing (3 cr)**

WRIT 3110 - Advanced Writing: Arts and Letters (3.0 cr)

**SFA Additional Liberal Education Requirement (3 cr)**

Three additional credits of SFA Liberal Education course(s) from outside the student's chosen major (art, art history, dance, fine arts or music). MU 15xx ensembles must be repeated once each semester for a total of 3 credits (ensembles may require audition).

**Duluth Campus**  
**Theatre B.F.A.**  
*Theatre*  
**School of Fine Arts**

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 120 to 124
- Required credits within the major: 79 to 93
- Degree: Bachelor of Fine Arts

The Department of Theatre, housed in the Marshall Performing Arts Center, has three objectives: to teach, produce, and sponsor theatre. The department provides academic and professional training in the arts of the theatre: acting, singing, directing, playwriting, critical evaluation, dance, scenic design, lighting design, sound, costume design, properties, stage management, theatre history and theory, and theatre management, as well as a broad liberal arts study.

The co-curricular producing arm of the department, UMD Theatre, provides practical experience for University students while enhancing the cultural life of the University and the communities it serves. Auditions for all theatre productions are open to any student currently enrolled at UMD. Productions range from classical to contemporary, comedy to tragedy, musical theatre to experimental. Modern, jazz, tap, and classical dance are offered in academics, as well as in the production season.

The department sponsors performances and residencies by a variety of theatre artists. Recent visitors have included world-class performing artists, directors, choreographers, designers, and dance companies.

Department Honors Requirements: Honors are awarded to graduating theatre majors for exceptional achievement. Candidates, nominated by theatre department faculty, receive honors for distinguished contribution in acting, musical theatre, design and technology, stage management, general theatre involvement and leadership.

## Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

## Admission Requirements

Students majoring in Theatre for the B.F.A. are admitted as provisional candidates for the degree when they enter UMD. At the end of the first year in residence, students are required to interview/audition for admission to full candidacy. The presentation should reflect the student's area of emphasis: acting, musical theatre, design and production, scene design, costume design, lighting design, technical theatre, stage management, or composite. Majors are also expected to participate in some aspect of UMD Theatre production during each semester of their residence at UMD.

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

## General Requirements

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.



8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

## Program Requirements

### Introductory Course (1 cr)

UST 1000 - UMD Seminar (1.0 - 2.0 cr)

### Advanced Writing (3 cr)

WRIT 3110 - Advanced Writing: Arts and Letters (3.0 cr)

### SFA Additional Liberal Education Requirement (3 cr)

Three additional credits of SFA Liberal Education course(s) from outside the student's chosen major (Art, Art History, Dance, Fine Arts or Music). MU 15xx ensembles must be repeated once each semester for a total of 3 credits (ensembles may require audition).

## Program Sub-plans

Students are required to complete one of the following sub-plans.

### Acting

The B.F.A. in Theatre with acting emphasis (74 credits) is for students seeking professional training or an intensive course of study and practical application in the area of acting.

#### B.F.A. Theatre Core Courses - Acting (34 cr)

B.F.A. Theatre students must enroll in a TH practicum (TH courses ending in "99") each semester except when enrolled in TH 1301 or 1401. Any TH practicum course is acceptable (1-6 cr).

TH 1031 - Introduction to Theatrical Design (3.0 cr)

TH 1301 - Stagecraft (5.0 cr)

TH 1401 - Costume Construction I (5.0 cr)

TH 1599 - Lighting/Sound Practicum (1.0 cr)

TH 1699 - Running Crew Practicum (2.0 cr)

TH 1801 - Elements of Theatre (3.0 cr)

TH 2801 - Play Analysis: Dramatic Theory and Theatre Research (3.0 cr)

TH 3201 - Stage Direction (3.0 cr)

TH 4801 - History of the Theatre I [HUMANITIES] (3.0 cr)

TH 4802 - History of the Theatre II (3.0 cr)

TH 901 - B.F.A. Track Selection (0.0 cr)

TH 1111 - Introduction to Acting [LE CAT10, FINE ARTS] (3.0 cr)

or TH 1112 - Acting I (3.0 cr)

#### Acting Emphasis Courses (40 cr)

DN 1101 - Modern Dance Technique I [LE CAT10, FINE ARTS] (2.0 cr)

TH 1116 - Audition Techniques I (2.0 cr)

TH 1118 - Voice and Movement for the Actor (3.0 cr)

TH 1451 - Stage Makeup (3.0 cr)

TH 2112 - Acting II: American Realism (3.0 cr)

TH 2113 - Acting III: Shakespeare (3.0 cr)

TH 2118 - Speech for the Actor (3.0 cr)

TH 2119 - Stage Dialects (3.0 cr)

TH 3112 - Acting IV: Improvisation (3.0 cr)

TH 3118 - Voice Release (1.0 cr)

TH 3151 - Stage Combat/Circus (3.0 cr)

TH 3218 - Acting V: Physical Theatre (2.0 cr)

TH 4112 - Acting VI: Scene Study (3.0 cr)

TH 4113 - Acting VII: Period Styles (2.0 cr)

TH 4116 - Audition Techniques II (1.0 cr)

TH 4171 - Acting VIII: Acting for the Camera (3.0 cr)

### Composite

The B.F.A. in Theatre with composite emphasis (72 credits) is for students seeking professional training or an intensive course of study with a composite emphasis.

#### B.F.A. Theatre Core Courses - Composite (34 cr)

B.F.A. Theatre students must enroll in a TH practicum (TH course ending in "99") each semester except when enrolled in TH 1301 or



1401. Any TH practicum course is acceptable (1-6 cr).

TH 901 - B.F.A. Track Selection (0.0 cr)

TH 1031 - Introduction to Theatrical Design (3.0 cr)

TH 1301 - Stagecraft (5.0 cr)

TH 1401 - Costume Construction I (5.0 cr)

TH 1599 - Lighting/Sound Practicum (1.0 cr)

TH 1699 - Running Crew Practicum (2.0 cr)

TH 1801 - Elements of Theatre (3.0 cr)

TH 2801 - Play Analysis: Dramatic Theory and Theatre Research (3.0 cr)

TH 3201 - Stage Direction (3.0 cr)

TH 4801 - History of the Theatre I [HUMANITIES] (3.0 cr)

TH 4802 - History of the Theatre II (3.0 cr)

TH 1111 - Introduction to Acting [LE CAT10, FINE ARTS] (3.0 cr)

or TH 1112 - Acting I (3.0 cr)

#### **Composite Emphasis Courses (38 cr)**

TH 3699 - Production Management (2.0 cr)

Theatre Electives (21 cr) - Theatre courses that support a theatre emphasis unavailable within the parameters of the acting, musical theatre, design/technical, or stage management emphases and approved by the composite adviser and the theatre faculty. At least 10 credits must be in upper division courses.

Electives (15 cr) - Courses outside the department that clearly support the student's declared composite emphasis and are approved by the composite adviser and theatre faculty.

#### **Costume Design**

The B.F.A. in Theatre with costume design emphasis (73 credits) is for students seeking professional training or an intensive course of study and practical application in the area of costume design.

#### **B.F.A. Theatre Core Courses - Costume Design (34 cr)**

B.F.A. Theatre students must enroll in a TH practicum (TH courses ending in "99") each semester except when enrolled in TH 1301 or 1401. Any TH practicum course is acceptable (1 - 6 cr).

TH 901 - B.F.A. Track Selection (0.0 cr)

TH 1031 - Introduction to Theatrical Design (3.0 cr)

TH 1301 - Stagecraft (5.0 cr)

TH 1401 - Costume Construction I (5.0 cr)

TH 1599 - Lighting/Sound Practicum (1.0 cr)

TH 1699 - Running Crew Practicum (2.0 cr)

TH 1801 - Elements of Theatre (3.0 cr)

TH 2801 - Play Analysis: Dramatic Theory and Theatre Research (3.0 cr)

TH 3201 - Stage Direction (3.0 cr)

TH 4801 - History of the Theatre I [HUMANITIES] (3.0 cr)

TH 4802 - History of the Theatre II (3.0 cr)

TH 1111 - Introduction to Acting [LE CAT10, FINE ARTS] (3.0 cr)

or TH 1112 - Acting I (3.0 cr)

#### **Design/Tech Core Requirements (21 cr)**

TH 2399 and 3399 must be repeated for 2 credits each.

TH 1351 - Stage Rendering Techniques (3.0 cr)

TH 2399 - Production Practicum II (1.0 cr)

TH 3331 - Scenic Design I (3.0 cr)

TH 3351 - Theatrical Drafting (3.0 cr)

TH 3399 - Production Practicum III (1.0 cr)

TH 3441 - Costume Design I (3.0 cr)

TH 4351 - Portfolio Preparation and Presentation (3.0 cr)

TH 4399 - Theatre: Special Projects (2.0 cr)

#### **Costume Design Emphasis Requirements (15 cr)**

ART 1010 - Drawing I (3.0 cr)

TH 1451 - Stage Makeup (3.0 cr)

TH 2400 - Survey of the History of Costume (3.0 cr)

TH 3401 - Costume Construction II (3.0 cr)

TH 4441 - Costume Design II (3.0 cr)

#### **Costume Design Emphasis Electives (3 cr)**

Take 1 or more course(s) totaling 3 or more credit(s) from the following:

•TH 4331 - Scenic Design II (3.0 cr)

•TH 4501 - Advanced Stage Lighting (3.0 cr)

#### **Design and Production**

The B.F.A. in Theatre with design and production emphasis (73 credits) is for students seeking professional training or an intensive

course of study and practical application in the area of design and production.

**B.F.A. Theatre Core Courses - Design and Production (34 cr)**

B.F.A. Theatre students must enroll in a TH practicum (TH course ending in "99") each semester except when enrolled in TH 1301 or 1401. Any TH practicum course is acceptable (1-6 cr).

- TH 901 - B.F.A. Track Selection (0.0 cr)
- TH 1031 - Introduction to Theatrical Design (3.0 cr)
- TH 1301 - Stagecraft (5.0 cr)
- TH 1401 - Costume Construction I (5.0 cr)
- TH 1599 - Lighting/Sound Practicum (1.0 cr)
- TH 1699 - Running Crew Practicum (2.0 cr)
- TH 1801 - Elements of Theatre (3.0 cr)
- TH 2801 - Play Analysis: Dramatic Theory and Theatre Research (3.0 cr)
- TH 3201 - Stage Direction (3.0 cr)
- TH 4801 - History of the Theatre I [HUMANITIES] (3.0 cr)
- TH 4802 - History of the Theatre II (3.0 cr)
- TH 1111 - Introduction to Acting [LE CAT10, FINE ARTS] (3.0 cr)  
or TH 1112 - Acting I (3.0 cr)

**Design/Tech Core Requirements (21 cr)**

TH 2399 and 3399 must be repeated for 2 credits each.

- TH 1351 - Stage Rendering Techniques (3.0 cr)
- TH 2399 - Production Practicum II (1.0 cr)
- TH 3331 - Scenic Design I (3.0 cr)
- TH 3351 - Theatrical Drafting (3.0 cr)
- TH 3399 - Production Practicum III (1.0 cr)
- TH 3441 - Costume Design I (3.0 cr)
- TH 4351 - Portfolio Preparation and Presentation (3.0 cr)
- TH 4399 - Theatre: Special Projects (2.0 cr)

**Design and Production Emphasis Electives Group 1 (12 cr)**

Take 4 or more course(s) totaling 12 or more credit(s) from the following:

- TH 1451 - Stage Makeup (3.0 cr)
- TH 1551 - Sound Design (3.0 cr)
- TH 1601 - Stage Management (3.0 cr)
- TH 2400 - Survey of the History of Costume (3.0 cr)
- TH 3301 - Stagecraft II (3.0 cr)
- TH 3352 - Stage Rendering Techniques II (3.0 cr)
- TH 3355 - Computer-Aided Theatrical Design (3.0 cr)
- TH 3371 - Scene Painting (3.0 cr)
- TH 3375 - Mechanical Design for Stage (3.0 cr)
- TH 3401 - Costume Construction II (3.0 cr)
- TH 3501 - Advanced Digital Technology for the Theatre (3.0 cr)

**Design and Production Emphasis Electives Group 2 (6 cr)**

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

- TH 4331 - Scenic Design II (3.0 cr)
- TH 4441 - Costume Design II (3.0 cr)
- TH 4501 - Advanced Stage Lighting (3.0 cr)

**Lighting Design**

The B.F.A. in Theatre with lighting design emphasis (73 credits) is for students seeking professional training or an intensive course of study and practical application in the area of lighting design.

**B.F.A. Theatre Core Courses - Lighting Design (34 cr)**

B.F.A. Theatre students must enroll in a TH practicum (TH course ending in "99") each semester except when enrolled in TH 1301 or 1401. Any TH practicum course is acceptable (1 - 6 cr).

- TH 1031 - Introduction to Theatrical Design (3.0 cr)
- TH 1301 - Stagecraft (5.0 cr)
- TH 1401 - Costume Construction I (5.0 cr)
- TH 1599 - Lighting/Sound Practicum (1.0 cr)
- TH 1699 - Running Crew Practicum (2.0 cr)
- TH 1801 - Elements of Theatre (3.0 cr)
- TH 2801 - Play Analysis: Dramatic Theory and Theatre Research (3.0 cr)
- TH 3201 - Stage Direction (3.0 cr)
- TH 4801 - History of the Theatre I [HUMANITIES] (3.0 cr)
- TH 4802 - History of the Theatre II (3.0 cr)
- TH 901 - B.F.A. Track Selection (0.0 cr)



TH 1111 - Introduction to Acting [LE CAT10, FINE ARTS] (3.0 cr)  
or TH 1112 - Acting I (3.0 cr)

**Design/Tech Core Requirements (21 cr)**

TH 2399 and 3399 must be repeated for 2 credits each.

TH 1351 - Stage Rendering Techniques (3.0 cr)  
TH 2399 - Production Practicum II (1.0 cr)  
TH 3331 - Scenic Design I (3.0 cr)  
TH 3351 - Theatrical Drafting (3.0 cr)  
TH 3399 - Production Practicum III (1.0 cr)  
TH 3441 - Costume Design I (3.0 cr)  
TH 4351 - Portfolio Preparation and Presentation (3.0 cr)  
TH 4399 - Theatre: Special Projects (2.0 cr)

**Lighting Design Emphasis Requirements (15 cr)**

CS 1121 - Introduction to Programming in Visual BASIC.NET [LE CAT3, LOGIC & QR] (3.0 cr)  
TH 1551 - Sound Design (3.0 cr)  
TH 3355 - Computer-Aided Theatrical Design (3.0 cr)  
TH 3501 - Advanced Digital Technology for the Theatre (3.0 cr)  
TH 4501 - Advanced Stage Lighting (3.0 cr)

**Lighting Design Emphasis Electives (3 cr)**

Take 1 or more course(s) totaling 3 or more credit(s) from the following:

- TH 4331 - Scenic Design II (3.0 cr)
- TH 4441 - Costume Design II (3.0 cr)

**Musical Theatre**

The B.F.A. in Theatre with musical theatre emphasis (86 credits) is for students seeking professional training or an intensive course of study and practical application in the area of musical theatre.

**B.F.A. Theatre Core Courses - Musical Theatre (34 cr)**

B.F.A. Theatre students must enroll in a TH practicum (TH course ending in "99") each semester except when enrolled in TH 1301 or 1401. Any TH practicum course is acceptable (1-6 cr).

TH 901 - B.F.A. Track Selection (0.0 cr)  
TH 1031 - Introduction to Theatrical Design (3.0 cr)  
TH 1301 - Stagecraft (5.0 cr)  
TH 1401 - Costume Construction I (5.0 cr)  
TH 1599 - Lighting/Sound Practicum (1.0 cr)  
TH 1699 - Running Crew Practicum (2.0 cr)  
TH 1801 - Elements of Theatre (3.0 cr)  
TH 2801 - Play Analysis: Dramatic Theory and Theatre Research (3.0 cr)  
TH 3201 - Stage Direction (3.0 cr)  
TH 4801 - History of the Theatre I [HUMANITIES] (3.0 cr)  
TH 4802 - History of the Theatre II (3.0 cr)  
TH 1111 - Introduction to Acting [LE CAT10, FINE ARTS] (3.0 cr)  
or TH 1112 - Acting I (3.0 cr)

**Musical Theatre Emphasis Courses (52 cr)**

DN 2111 - Jazz Dance Techniques II (2.0 cr)  
DN 2131 - Ballet Technique II (2.0 cr)  
DN 3211 - Jazz Dance Technique III (2.0 cr)  
DN 3221 - Tap Dance Technique II (2.0 cr)  
DN 3231 - Ballet Technique III (2.0 cr)  
DN 3241 - Social Dance for the Stage (1.0 cr)  
DN 4116 - Musical Theatre Audition Techniques (3.0 cr)  
MU 1322 - Piano-Non Major (1.0 cr)  
TH 1071 - Musical Theatre History [LE CAT9, HUMANITIES] (3.0 cr)  
TH 1114 - Music Theory and Sight Singing for the Musical Theatre Performer (3.0 cr)  
TH 1115 - Musical Theatre Singing I: Introductory Group Instruction (1.0 cr)  
TH 1116 - Audition Techniques I (2.0 cr)  
TH 1118 - Voice and Movement for the Actor (3.0 cr)  
TH 1451 - Stage Makeup (3.0 cr)  
TH 2112 - Acting II: American Realism (3.0 cr)  
TH 2113 - Acting III: Shakespeare (3.0 cr)  
TH 2114 - Acting: Musical Theatre (3.0 cr)  
TH 2115 - Musical Theatre Singing II: The Modes (1.0 cr)  
TH 2118 - Speech for the Actor (3.0 cr)  
TH 3112 - Acting IV: Improvisation (3.0 cr)  
TH 3114 - Musical Theatre Repertoire (1.0 cr)



- TH 3115 - Musical Theatre Singing III (1.0 cr)
- TH 4113 - Acting VII: Period Styles (2.0 cr)
- TH 4115 - Musical Theatre Singing IV: Transition Into the Profession (1.0 cr)
- TH 4116 - Audition Techniques II (1.0 cr)

#### Scene Design

The B.F.A. in Theatre with scene design emphasis (73 credits) is for students seeking professional training or an intensive course of study and practical application in the area of scene design.

#### B.F.A. Theatre Core Courses - Scene Design (34 cr)

B.F.A. students must enroll in a TH practicum (TH courses ending in "99") each semester except when enrolled in TH 1301 or 1401.

Any TH practicum course is acceptable (1-6 cr).

- TH 901 - B.F.A. Track Selection (0.0 cr)
- TH 1031 - Introduction to Theatrical Design (3.0 cr)
- TH 1301 - Stagecraft (5.0 cr)
- TH 1401 - Costume Construction I (5.0 cr)
- TH 1599 - Lighting/Sound Practicum (1.0 cr)
- TH 1699 - Running Crew Practicum (2.0 cr)
- TH 1801 - Elements of Theatre (3.0 cr)
- TH 2801 - Play Analysis: Dramatic Theory and Theatre Research (3.0 cr)
- TH 3201 - Stage Direction (3.0 cr)
- TH 4801 - History of the Theatre I [HUMANITIES] (3.0 cr)
- TH 4802 - History of the Theatre II (3.0 cr)
- TH 1111 - Introduction to Acting [LE CAT10, FINE ARTS] (3.0 cr)  
or TH 1112 - Acting I (3.0 cr)

#### Design/Tech Core Requirements (21 cr)

- TH 2399 and 3399 must be repeated for 2 credits each
- TH 1351 - Stage Rendering Techniques (3.0 cr)
- TH 2399 - Production Practicum II (1.0 cr)
- TH 3331 - Scenic Design I (3.0 cr)
- TH 3351 - Theatrical Drafting (3.0 cr)
- TH 3441 - Costume Design I (3.0 cr)
- TH 3399 - Production Practicum III (1.0 cr)
- TH 4351 - Portfolio Preparation and Presentation (3.0 cr)
- TH 4399 - Theatre: Special Projects (2.0 cr)

#### Scene Design Emphasis Requirements (15 cr)

- ART 1010 - Drawing I (3.0 cr)
- TH 3352 - Stage Rendering Techniques II (3.0 cr)
- TH 3355 - Computer-Aided Theatrical Design (3.0 cr)
- TH 3371 - Scene Painting (3.0 cr)
- TH 4331 - Scenic Design II (3.0 cr)

#### Scene Design Emphasis Electives (3 cr)

Take 1 or more course(s) totaling 3 or more credit(s) from the following:

- TH 4441 - Costume Design II (3.0 cr)
- TH 4501 - Advanced Stage Lighting (3.0 cr)

#### Stage Management

The B.F.A. in Theatre with stage management emphasis (73 credits) is for students seeking professional training or an intensive course of study and practical application in the area of stage management.

#### B.F.A. Theatre Core Courses - Stage Management (34 cr)

B.F.A. Theatre students must enroll in a TH practicum (TH course ending in "99") each semester except when enrolled in TH 1301 or 1401. Any TH practicum course is acceptable (1-6 cr).

- TH 901 - B.F.A. Track Selection (0.0 cr)
- TH 1031 - Introduction to Theatrical Design (3.0 cr)
- TH 1301 - Stagecraft (5.0 cr)
- TH 1401 - Costume Construction I (5.0 cr)
- TH 1599 - Lighting/Sound Practicum (1.0 cr)
- TH 1699 - Running Crew Practicum (2.0 cr)
- TH 1801 - Elements of Theatre (3.0 cr)
- TH 2801 - Play Analysis: Dramatic Theory and Theatre Research (3.0 cr)
- TH 3201 - Stage Direction (3.0 cr)
- TH 4801 - History of the Theatre I [HUMANITIES] (3.0 cr)
- TH 4802 - History of the Theatre II (3.0 cr)
- TH 1111 - Introduction to Acting [LE CAT10, FINE ARTS] (3.0 cr)



or TH 1112 - Acting I (3.0 cr)

**Stage Management Emphasis Requirements (18 cr)**

TH 2399 must be repeated for a total of 2 credits and TH 3699 must be repeated for a total of 4 credits.

COMM 1222 - Interpersonal Communication [LE CAT3, LECD CAT03, COMM & LAN] (3.0 cr)

HLTH 1700 - First Responder (3.0 cr)

TH 1601 - Stage Management (3.0 cr)

TH 2399 - Production Practicum II (1.0 cr)

TH 3699 - Production Management (2.0 cr)

TH 4351 - Portfolio Preparation and Presentation (3.0 cr)

**Stage Management Emphasis Electives (21 cr)**

Take 21 or more credit(s) from the following:

- COMM 1112 - Public Speaking [LE CAT3, COMM & LAN] (3.0 cr)
- COMM 3116 - Professional Communication (3.0 cr)
- COMM 3210 - Group Communication (3.0 cr)
- COMM 3215 - Conflict Management (3.0 cr)
- HLTH 1470 - Human Nutrition [LE CAT5, NAT SCI] (3.0 cr)
- TH 1451 - Stage Makeup (3.0 cr)
- TH 1551 - Sound Design (3.0 cr)
- TH 3331 - Scenic Design I (3.0 cr)
- TH 3351 - Theatrical Drafting (3.0 cr)
- TH 3371 - Scene Painting (3.0 cr)
- TH 3871 - Playwriting [LE CAT9, FINE ARTS] (3.0 cr)
- TH 3881 - New Play Development Workshop (3.0 cr)
- TH 5997 - Internship in Professional Theatre (1.0 - 12.0 cr)

**Technical Theatre**

The B.F.A. in Theatre with technical theatre emphasis (73 credits) is for students seeking professional training or an intensive course of study and practical application in the area of technical theatre.

**B.F.A. Theatre Core Courses - Technical Theatre (34 cr)**

B.F.A. Theatre students must enroll in a TH practicum (TH course ending in "99") each semester except when enrolled in TH 1301 or 1401. Any TH practicum course is acceptable (1 - 6 cr).

TH 901 - B.F.A. Track Selection (0.0 cr)

TH 1031 - Introduction to Theatrical Design (3.0 cr)

TH 1301 - Stagecraft (5.0 cr)

TH 1401 - Costume Construction I (5.0 cr)

TH 1599 - Lighting/Sound Practicum (1.0 cr)

TH 1699 - Running Crew Practicum (2.0 cr)

TH 1801 - Elements of Theatre (3.0 cr)

TH 2801 - Play Analysis: Dramatic Theory and Theatre Research (3.0 cr)

TH 3201 - Stage Direction (3.0 cr)

TH 4801 - History of the Theatre I [HUMANITIES] (3.0 cr)

TH 4802 - History of the Theatre II (3.0 cr)

TH 1111 - Introduction to Acting [LE CAT10, FINE ARTS] (3.0 cr)

or TH 1112 - Acting I (3.0 cr)

**Design/Tech Core Requirements (21 cr)**

TH 2399 and 3399 must be repeated for 2 credits each

TH 1351 - Stage Rendering Techniques (3.0 cr)

TH 2399 - Production Practicum II (1.0 cr)

TH 3331 - Scenic Design I (3.0 cr)

TH 3351 - Theatrical Drafting (3.0 cr)

TH 3399 - Production Practicum III (1.0 cr)

TH 3441 - Costume Design I (3.0 cr)

TH 4351 - Portfolio Preparation and Presentation (3.0 cr)

TH 4399 - Theatre: Special Projects (2.0 cr)

**Technical Theatre Emphasis Requirements (15 cr)**

PHYS 1011 - Conceptual Physics [LE CAT5, NAT SCI] (3.0 cr)

TH 3301 - Stagecraft II (3.0 cr)

TH 3355 - Computer-Aided Theatrical Design (3.0 cr)

TH 3375 - Mechanical Design for Stage (3.0 cr)

TH 3501 - Advanced Digital Technology for the Theatre (3.0 cr)

**Technical Theatre Emphasis Electives (3 cr)**

Take 1 or more course(s) totaling 3 or more credit(s) from the following:

- TH 4331 - Scenic Design II (3.0 cr)
- TH 4441 - Costume Design II (3.0 cr)



•TH 4501 - Advanced Stage Lighting (3.0 cr)



### **Duluth Campus**

## **Theatre Minor**

*Theatre*

### **School of Fine Arts**

- Program Type: Undergraduate minor related to major
- Requirements for this program are current for Fall 2016
- Required credits in this minor: 26

The theatre minor is for students who want to pursue an interest in theatre that will complement their major program.

### **Program Delivery**

This program is available:

- via classroom (the majority of instruction is face-to-face)

### **Minor Requirements**

Theatre minors should confer with a minor adviser from the Department of Theatre to develop a sound schedule for taking courses to complete the minor in less than four years. Students are advised to note prerequisites and to take courses in proper sequence.

#### **Theatre Minor Courses (26 cr)**

**TH 1001** - Introduction to Theatre Arts [LE CAT9, FINE ARTS] (3.0 cr)

**TH 1031** - Introduction to Theatrical Design (3.0 cr)

**TH 1111** - Introduction to Acting [LE CAT10, FINE ARTS] (3.0 cr)

**TH 1301** - Stagecraft (5.0 cr)

**TH 1401** - Costume Construction I (5.0 cr)

**TH 1599** - Lighting/Sound Practicum (1.0 cr)

Take 2 or more course(s) from the following:

- **TH 1351** - Stage Rendering Techniques (3.0 cr)
- **TH 1451** - Stage Makeup (3.0 cr)
- **TH 1551** - Sound Design (3.0 cr)
- **TH 1601** - Stage Management (3.0 cr)
- **TH 2400** - Survey of the History of Costume (3.0 cr)
- **TH 2801** - Play Analysis: Dramatic Theory and Theatre Research (3.0 cr)
- **TH 4841** - Creative Collaboration (3.0 cr)
- **TH 3111** - Introduction to Scene Study (3.0 cr)
- **TH 3201** - Stage Direction (3.0 cr)

### **Duluth Campus**

## **Theory and Composition B.Mus.**

*Music*

### **School of Fine Arts**

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 120
- Required credits within the major: 93
- Degree: Bachelor of Music

The B.Mus. in theory and composition is for students pursuing programs of intensive study to prepare for professional careers in music. The program assists students to acquire compositional and analytical skills to best express their musical ideas and provides students with advanced knowledge of the materials of contemporary and historical music and a theoretical understanding of their construction.

Department honors requirements: Candidates, nominated by music department faculty, receive honors for distinguished achievement in musical performance, composition, or exceptional ability and accomplishment as a music educator.

### **Program Delivery**

This program is available:

- via classroom (the majority of instruction is face-to-face)

### **Admission Requirements**

Students must pass a performance audition to be accepted into any music degree program. At the time of the audition, students must also complete diagnostic examinations in theory/aural/keyboards skills and an interview with the department head or an appointed designee. Any student who receives provisional acceptance into a degree program must pass a review (usually at the end of the first semester) to receive full acceptance. That review includes recommendations of major instructors and successful completion of an applied jury.

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

### **General Requirements**

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

### **Program Requirements**

Courses with grades less than C- will not count toward the major.



### Introductory Course (1 cr)

Music majors register for 1 credit.  
[UST 1000](#) - UMD Seminar (1.0 - 2.0 cr)

### Music Core (23 cr)

[MU 100](#) - Recital Hour (0.0 cr)  
[MU 1111](#) - Tonal Harmony I (3.0 cr)  
[MU 1112](#) - Ear-Training and Sight-Singing I (1.0 cr)  
[MU 1121](#) - Tonal Harmony II (3.0 cr)  
[MU 1122](#) - Ear-Training II (1.0 cr)  
[MU 2111](#) - Tonal Harmony III (3.0 cr)  
[MU 2112](#) - Ear-Training III (1.0 cr)  
[MU 2121](#) - Tonal Harmony IV (3.0 cr)  
[MU 2122](#) - Ear-Training, Sight Singing and Improvisation (1.0 cr)  
[MU 2701](#) - Fundamentals of Conducting (1.0 cr)  
[MU 3201](#) - Music History I (3.0 cr)  
[MU 3202](#) - Music History II (3.0 cr)

### Major Course Requirements (38 cr)

[MU 2105](#) register for a total of 4 credits.  
[MU 3105](#) register for a total of 4 credits.  
[MU 4105](#) register for a total of 4 credits.  
[MU 4997](#) register for 2 credits.  
[MU 5991](#) register for 3 credits.  
[MU 1421](#) - Piano Class I (1.0 cr)  
[MU 1422](#) - Piano Class II (1.0 cr)  
[MU 2105](#) - Composition I (2.0 cr)  
[MU 2110](#) - Jazz Theory (2.0 cr)  
[MU 3101](#) - Form and Analysis (2.0 cr)  
[MU 3105](#) - Composition II (2.0 cr)  
[MU 3705](#) - Instrumental Conducting I (1.0 cr)  
[MU 3805](#) - Jazz Writing I (2.0 cr)  
[MU 4101](#) - Instrumental Arranging (2.0 cr)  
[MU 4103](#) - Contrapuntal Techniques (2.0 cr)  
[MU 4105](#) - Composition III (2.0 cr)  
[MU 4300](#) - Senior Recital (1.0 cr)  
[MU 4807](#) - Music Industry (2.0 cr)  
[MU 4997](#) - Internship in Music (1.0 - 2.0 cr)  
[MU 5201](#) - Advanced Music History (2.0 cr)  
[MU 5991](#) - Independent Study (1.0 - 3.0 cr)  
[MU 1005](#) - Jazz Studies [LE CAT9, LECD CAT09, FINE ARTS, CDIVERSITY] (3.0 cr)  
or [MU 2001](#) - Ethnic and Folk Music of the World [LE CAT9, LEIP CAT09, FINE ARTS] (3.0 cr)  
or [MU 2005](#) - African Roots of American Music [LE CAT9, LECD CAT09, FINE ARTS] (3.0 cr)

### Applied Instruction (17 cr)

[MU 100](#) must be taken concurrently each semester with applied instruction in principal instrument.

[MU 1322](#) - Piano-Non Major (1.0 cr)

Two credits each semester.

Take 8 or more credit(s) from the following:

•[MU 1xxx](#)

Two credits each semester.

Take 8 or more credit(s) from the following:

•[MU 4xxx](#)

### Ensemble Requirements (8 cr)

[MU 1xxx](#): take 4 cr from [MU 1501](#), [1502](#), [1503](#), [1510](#), [1511](#)

[MU 4xxx](#): take 4 cr from [MU 4501](#), [4502](#), [4503](#), [4510](#), [4511](#)

One credit each semester

Take 4 or more course(s) totaling 4 or more credit(s) from the following:

•[MU 1xxx](#)

One credit each semester

Take 4 or more course(s) totaling 4 or more credit(s) from the following:

•[MU 4xxx](#)

### Advanced Writing (3 cr)



[WRIT 3110](#) - Advanced Writing: Arts and Letters (3.0 cr)

**SFA Additional Liberal Education Requirement (3 cr)**

Three additional credits of SFA Liberal Education course(s) from outside the student's chosen major (art, art history, dance, fine arts or theatre). A 2-credit DN course may be substituted (art, or music students only).

**Proficiency Exams**

Basic piano, advanced proficiency in principal instrument.

[MU 200](#) - Basic Piano Proficiency (0.0 cr)

[MU 300](#) - Advanced Standing Exam (0.0 cr)

## Duluth Campus

# Accounting B.Acc.

Accounting

## Labovitz School of Business and Economics

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 120
- Required credits within the major: 98
- Degree: Bachelor of Accounting

The bachelor of accounting provides the core competencies in accounting and general business that are necessary for a successful accounting career. The program includes study in the following areas: financial accounting, management accounting, accounting information systems, financial, operational, and information systems auditing, and taxation. This accounting curriculum is combined with a foundation in the functional areas of business law, finance, information systems, marketing, operations, and management, as well as a broad general education, including the areas of the behavioral sciences, the humanities, English, communication, the arts, mathematics, and statistics.

The primary professional certification in public accounting is the Certified Public Accountant (CPA). Most states, including Minnesota and Wisconsin, require students to complete 150 semester hours of education to become a licensed CPA. All 150 hours may be taken at the undergraduate level or a combination of undergraduate and graduate level courses may be used to satisfy this requirement. At UMD, students can combine their B.Acc. degree with an MBA from another major within LSBE such as the MIS, financial markets, or healthcare management; a minor from LSBE, such as financial planning or MIS; a minor from another collegiate unit, such as computer science, communications, or criminal justice; or additional undergraduate coursework in accounting, business, or other discipline such that the total equals or exceeds 150 hours. (Contact the Department of Accounting for additional information.)

Other types of professional certifications for accountants in private industry do not require 150 hours of education. The Certified Management Accountant (CMA) certificate is issued by the Institute of Management Accounting. The Certified Internal Auditor (CIA) certificate is issued by the Institute of Internal Auditors. The B.Acc. degree program also serves as basic preparation for both the CMA and CIA examinations.

A number of active learning opportunities are available to students in UMD's accounting program. ACCT 3796 Internship in Accounting allows students to apply knowledge and skills gained in the classroom to real world accounting problems through work experience in sponsoring businesses. Most internships offer a salary, as well as the opportunity to earn credits through a supervised work experience. Another opportunity, ACCT 3705 Volunteer Income Tax Assistance, gives students a general understanding of the U.S. individual income tax system, while providing a valuable service learning experience by assisting low-income clientele with tax planning and compliance. Finally, in ACCT 3701 Student to Business Initiative in Accounting, students working in teams are matched with local small business that need accounting assistance. Students define the specific scope of work with the business owner and then serve as a "consultant" to the business. At the end of the semester, students present the results of their work at the UMD Center for Economic Development offices.

Program Honors: Degree candidates must earn a 3.30 GPA in all LSBE upper division courses

## Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

## Admission Requirements

Freshman and transfer students are usually admitted to pre-major status before admission to this major

A GPA above 2.0 is preferred for the following:

- 2.60 already admitted to the degree-granting college
- 2.60 transferring from another University of Minnesota college
- 2.60 transferring from outside the University

Freshmen and transfer students are typically admitted as pre-accounting students for the B.Acc. degree. Admission to candidacy status, which allows access to upper division LSBE courses, typically occurs at the junior level when students have successfully completed all pre-major (pre-candidacy) course requirements and met all of the GPA standards. Students with a 2.60 UM and overall, 2.00 internal and pre-major GPAs are admitted upon completion of pre-major courses; students with a 2.00-2.59 UM and overall, 2.00 internal and pre-major GPAs are pooled and reviewed for evidence of academic success in LSBE majors.

Students who do not qualify for admission to candidacy may not take upper division LSBE courses (excluding some economics courses) without permission of the director of student affairs.

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

#### Required prerequisites

##### Introductory Course (1 cr)

Not required for transfer students with 30 or more credits, or for students who change college into LSBE.

[UST 1000](#) - UMD Seminar (1.0 - 2.0 cr)

##### Pre-major Accounting Requirements (37 cr)

Electives: additional courses to bring total to 60 pre-candidacy credits. Non-LSBE statistics courses cannot be used to fulfill elective requirements. Students must obtain a minimum of a "C" in ACCT 2001 and 2002.

[ACCT 2001](#) - Principles of Financial Accounting (3.0 cr)

[ACCT 2002](#) - Principles of Managerial Accounting (3.0 cr)

[BLAW 2001](#) - The Legal Environment [LE CAT8, HUMANITIES] (3.0 cr)

[ECON 1022](#) - Principles of Economics: Macro [LE CAT6, SOC SCI] (3.0 cr)

[ECON 1023](#) - Principles of Economics: Micro [LE CAT6, SOC SCI] (3.0 cr)

[ECON 2030](#) - Applied Statistics for Business and Economics [LOGIC & QR] (3.0 cr)

[FMIS 2201](#) - Information Technology in Business (3.0 cr)

[LSBE 2000](#) - Interpersonal and Teamwork Skills (1.0 cr)

[PSY 1003](#) - General Psychology [LE CAT6, SOC SCI] (4.0 cr)

[WRIT 1120](#) - College Writing [LE CAT1, WRITING] (3.0 cr)

[MATH 1160](#) - Finite Mathematics and Introduction to Calculus [LE CAT2, LOGIC & QR] (5.0 cr)

or [MATH 1290](#) - Calculus for the Natural Sciences [LE CAT2, LOGIC & QR] (5.0 cr)

or [MATH 1296](#) - Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)

or [MATH 1596](#) - Honors: Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)

##### Communications or Foreign Language

[COMM 1112](#) - Public Speaking [LE CAT3, COMM & LAN] (3.0 cr)

or [COMM 1222](#) - Interpersonal Communication [LE CAT3, LECD CAT03, COMM & LAN] (3.0 cr)

or LSBE students are encouraged to take at least one year of a college-level foreign language.

## General Requirements

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

## Program Requirements

1. LSBE students are encouraged to take at least one year of college-level foreign language.
2. 50% of all required business credits, including the upper division economics elective, must be taken from LSBE faculty.
3. Students must complete a minimum of 30 credits while enrolled in LSBE.
4. No more than 9 credits (three courses) pertaining to a specific major may be taken abroad, unless an exception is approved by

petition.

### **B.Acc. Requirements (27 cr)**

#### **A. Accounting-Business Law Core (22 cr)**

- ACCT 3001 - Technology Tools in Accounting (1.0 cr)
- ACCT 3101 - Intermediate Accounting I (3.0 cr)
- ACCT 3102 - Intermediate Accounting II (3.0 cr)
- ACCT 3201 - Cost Accounting (3.0 cr)
- ACCT 3301 - Accounting Information Systems (3.0 cr)
- ACCT 3401 - Individual Income Taxation (3.0 cr)
- ACCT 4101 - Auditing (3.0 cr)
- BLAW 3001 - Law and Ethics for Financial Professionals (3.0 cr)

#### **B. Active Learning Experience (2 cr)**

Take 2 or more credit(s) from the following:

- ACCT 3701 - Small Business Initiative in Accounting (1.0 - 2.0 cr)
- ACCT 3705 - Volunteer Income Tax Assistance (1.0 - 2.0 cr)
- ACCT 3796 - Internship in Accounting (2.0 - 6.0 cr)

#### **C. Accounting Elective (3 cr)**

Take 3 or more credit(s) from the following:

- ACCT 3402 - Advanced Business Taxation (3.0 cr)
- ACCT 4501 - Advanced Accounting (3.0 cr)
- ACCT 4505 - International Accounting (3.0 cr)
- ACCT 4510 - Fund and Not-For-Profit Accounting (3.0 cr)
- ACCT 4600 - Employee Benefit and Retirement Planning (3.0 cr)
- ACCT 4795 - Special Topics (Various Titles to be Assigned) (1.0 - 3.0 cr)
- BLAW 3301 - Estate Planning Concepts and Strategies (3.0 cr)

### **LSBE Core (24 cr)**

- FMIS 3141 - Business Communications (3.0 cr)
- FMIS 3601 - Corporate Finance (3.0 cr)
- MGTS 3301 - Production and Operations Management (3.0 cr)
- MGTS 3401 - Organizational Behavior and Management (3.0 cr)
- MGTS 3801 - Human Resource Management (3.0 cr)
- MGTS 4481 - Strategic Management (3.0 cr)
- MKTG 3701 - Principles of Marketing (3.0 cr)

Take exactly 3 credit(s) from the following:

- ECON 3xxx
- ECON 4xxx

### **Supporting Courses (5 cr)**

Complete minimum of 5 credits of additional ACCT 3796 credits and/or non-LSBE courses (3xxx or above), including at least one international course listed below. NOTE: PSY 3020, SOC 3155, STAT 3411, or STAT 3611 cannot be used to fulfill this requirement.

#### **International Requirement**

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

- ACCT 4505 - International Accounting (3.0 cr)
- AMIN 3410 - Fur Trade in Canada and the United States [CDIVERSITY] (3.0 cr)
- ANTH 3628 - Women in Cross-Cultural Perspective (3.0 cr)
- ANTH 3632 - Latin American Cultures (3.0 cr)
- ANTH 3638 - Peoples and Cultures of the Middle East (3.0 cr)
- ECON 3150 - Development Economics (3.0 cr)
- ECON 3402 - Global Economic Issues (3.0 cr)
- ECON 4410 - International Economics (3.0 cr)
- ENGL 3501 - British Literature I [HUMANITIES] (4.0 cr)
- ENGL 3502 - British Literature II [HUMANITIES] (4.0 cr)
- ENGL 5566 - Irish Literary Revival (4.0 cr)
- ENGL 5583 - British Novel (4.0 cr)
- FMIS 3649 - International Finance (3.0 cr)
- FR 4412 - Contemporary French Culture and Society [HUMANITIES, GLOBAL PER] (4.0 cr)
- FR 4422 - 20th-Century Novel [HUMANITIES] (4.0 cr)
- FST 4225 - INTB 4201, Chinese Business and Economics (3.0 cr)
- FST 4295 - INTB 4211 Innovation in Ireland (GLOBAL PER) [GLOBAL PER] (3.0 cr)
- GEOG 3461 - Geography of Global Resources [SUSTAIN] (3.0 cr)
- GER 4302 - German Women Writers and Filmmakers [HUMANITIES] (4.0 cr)
- GER 4305 - German Cinema [HUMANITIES] (4.0 cr)
- GER 4404 - Contemporary Germany [HUMANITIES, GLOBAL PER] (4.0 cr)



- [HCM 4560](#) - International Comparisons of Health Care Systems (3.0 cr)
- [HIST 3243](#) - Europe in Crisis in the 20th Century (4.0 cr)
- [HIST 3244](#) - History of Holocaust (4.0 cr)
- [HIST 3257](#) - Modern France (4.0 cr)
- [HIST 3264](#) - Imperial Russia (4.0 cr)
- [HIST 3386](#) - The United States and the World since 1898 (4.0 cr)
- [HIST 3615](#) - Modern Africa (4.0 cr)
- [HIST 3616](#) - Society and Culture in 20th-Century Africa (4.0 cr)
- [HIST 3726](#) - Modern Middle East: 18th Century-Present (4.0 cr)
- [HIST 3825](#) - Islamic History from Muhammad to the Ottomans (4.0 cr)
- [MGTS 4474](#) - International Management (3.0 cr)
- [MGTS 4861](#) - International Human Resource Management (3.0 cr)
- [MKTG 3781](#) - International Marketing (3.0 cr)
- [POL 3451](#) - Theories of International Relations (4.0 cr)
- [POL 3456](#) - International Security: War and More (4.0 cr)
- [POL 3517](#) - Western European Political Systems (4.0 cr)
- [POL 3570](#) - Politics of Developing Nations (3.0 cr)
- [SOC 3945](#) - Social Stratification (3.0 cr)
- [SPAN 3042](#) - Hispanic American Civilization and Culture [HUMANITIES, GLOBAL PER] (4.0 cr)
- [SPAN 3044](#) - Civilization, Cultures and Communities of Spain [HUMANITIES, GLOBAL PER] (4.0 cr)
- [SPAN 4011](#) - Hispanic American Prose [HUMANITIES] (4.0 cr)
- [SPAN 4017](#) - Hispanic American Cinema and Culture [FINE ARTS] (4.0 cr)
- [SPAN 4018](#) - Hispanic America From Within [HUMANITIES] (4.0 cr)
- [SPAN 4027](#) - Contemporary Literature and Culture of Spain [HUMANITIES] (4.0 cr)
- [WS 3000](#) - Transnational Perspectives on Feminism [SOC SCI, GLOBAL PER] (3.0 cr)
- [WS 3001](#) - Gender Relations in the Global South [GLOBAL PER] (3.0 cr)
- [WS 3002](#) - Latin American Women: Culture and Politics (3.0 cr)
- [WS 3400](#) - Women and Film [GLOBAL PER] (3.0 cr)

**Advance Writing Requirement and Professional Development (4 cr)**

- [WRIT 3121](#) - Advanced Writing: Business and Organizations (3.0 cr)
- [LSBE 3000](#) - Career Development for the Business Professional (1.0 cr)

## Duluth Campus

# Accounting Minor

Accounting

## Labovitz School of Business and Economics

- Program Type: Undergraduate minor related to major
- Requirements for this program are current for Fall 2016
- Required credits in this minor: 12 to 31

The minor in accounting is valuable to students who want to understand the accounting process and its applications in modern society. The minor offers training for entry into positions in government, industry, and social service organizations that require an understanding of accounting but not the depth provided by the B.Acc. degree program.

For students outside of LSBE, no more than 25 percent (30 credits) of total credits required for a degree may be drawn from the courses offered by LSBE or recognized by the school as equivalent transfer courses while completing this minor. Economics courses are excluded from these calculations.

## Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

## Admission Requirements

A GPA above 2.0 is preferred for the following:

- 2.60 already admitted to the degree-granting college
- 2.60 transferring from another University of Minnesota college
- 2.60 transferring from outside the University

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

## Minor Requirements

The accounting minor is available to both LSBE students and non-LSBE students. Requirements are described below.

## Program Sub-plans

Students are required to complete one of the following sub-plans.

### Labovitz School of Business and Economics

LSBE students must be a B.B.A. degree candidate.

Students must apply for admission to the minor and are admitted if eligible for LSBE candidacy status.

Admission to the minor is based on the same GPA requirements as admission to candidacy for LSBE baccalaureate degrees. Applications are available in 111A Labovitz School of Business and Economics Building.

### Accounting Core Courses (6 cr)

[ACCT 3101](#) - Intermediate Accounting I (3.0 cr)

[ACCT 3301](#) - Accounting Information Systems (3.0 cr)

### Accounting Electives (6 cr)

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

- [ACCT 3102](#) - Intermediate Accounting II (3.0 cr)
- [ACCT 3401](#) - Individual Income Taxation (3.0 cr)
- [ACCT 3201](#) - Cost Accounting (3.0 cr)

### Non Labovitz School of Business and Economics

Currently, only the business administration minor, the economics minor, and the accounting minor (below) are available to non-LSBE



students

Non-LSBE students must apply for admission to the minor before completing ACCT 2002, and/or ECON 2030, or an equivalent non-LSBE statistics course, and are admitted to the minor when admitted to candidacy in LSBE.

An overall and UM GPA of 2.60 and 2.00 in LSBE courses and completion of the pre-minor core are required for automatic admission to this minor. Students with GPAs between 2.00 and 2.60 should consult with LSBE Student Affairs.

**Pre-Minor Core (15-19 cr)**

[ACCT 2001](#) - Principles of Financial Accounting (3.0 cr)

[ACCT 2002](#) - Principles of Managerial Accounting (3.0 cr)

[FMIS 2201](#) - Information Technology in Business (3.0 cr)

[ECON 2030](#) - Applied Statistics for Business and Economics [LOGIC & QR] (3.0 cr)  
or equivalent stats course (3-4 credits)

Take the following course or course pair:

[ECON 1003](#) - Economics and Society [LE CAT8, SOC SCI] (3.0 cr)

or [ECON 1022](#) - Principles of Economics: Macro [LE CAT6, SOC SCI] (3.0 cr)

[ECON 1023](#) - Principles of Economics: Micro [LE CAT6, SOC SCI] (3.0 cr)

**Minor Courses (6 cr)**

[ACCT 3101](#) - Intermediate Accounting I (3.0 cr)

[ACCT 3301](#) - Accounting Information Systems (3.0 cr)

**Electives (6 cr)**

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

• [ACCT 3102](#) - Intermediate Accounting II (3.0 cr)

• [ACCT 3401](#) - Individual Income Taxation (3.0 cr)

• [ACCT 3201](#) - Cost Accounting (3.0 cr)

### Duluth Campus

## Business Administration Certificate

Labovitz School of Business & Economics - Adm

### Labovitz School of Business and Economics

- Program Type: Undergraduate credit certificate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 16
- Degree: Business Administration Certificate

The Certificate in Business Administration is intended to provide a basic introduction to the fundamentals of business to students who may not have had any prior exposure to business. A student must successfully complete all eight modules included in the program in order to earn the Certificate. The eight modules provide coverage in the areas of accounting, economics, finance, human resource management, marketing, operations, organizational management, and statistics. Students who have successfully completed all eight modules would be deemed to have met all the prerequisite foundational requirements for LSBE's MBA program. All eight courses included in the program are two-credits each and are offered fully online. These courses cannot be used to substitute for any existing LSBE courses.

### Program Delivery

This program is available:

- completely online (all program coursework can be completed online)

### Admission Requirements

College consent will be required for students to enroll in any of the modules.

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

### General Requirements

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

### Program Requirements

#### Required Courses (16 cr)

- [BUS 2100](#) - Fundamentals of Accounting (2.0 cr)
- [BUS 2200](#) - Fundamentals of Economics (2.0 cr)
- [BUS 2300](#) - Fundamentals of Operations Management (2.0 cr)
- [BUS 2400](#) - Fundamentals of Organizational Management (2.0 cr)
- [BUS 2500](#) - Fundamentals of Applied Statistics (2.0 cr)
- [BUS 2600](#) - Fundamentals of Financial Management (2.0 cr)
- [BUS 2700](#) - Fundamentals of Marketing (2.0 cr)



[BUS 2800](#) - Fundamentals of Human Resource Management (2.0 cr)



### Duluth Campus

## Business Administration Minor

*Finance & Management Information Sciences, Management Studies, Marketing*

### Labovitz School of Business and Economics

- Program Type: Undergraduate free-standing minor
- Requirements for this program are current for Fall 2016
- Required credits in this minor: 27 to 30

The business administration minor provides supplemental business education for students seeking degrees in programs other than business or accounting.

### Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

### Admission Requirements

A GPA above 2.0 is preferred for the following:

- 2.60 already admitted to the degree-granting college
- 2.60 transferring from another University of Minnesota college
- 2.60 transferring from outside the University

An overall and UM GPA of 2.60 and 2.00 within all LSBE courses is required for automatic admission to this minor, along with completion of the pre-minor core. Students with GPAs between 2.00 and 2.59 should consult with LSBE Student Affairs.

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

### Minor Requirements

The business administration minor is available to non-LSBE students only.

#### Pre-Minor Core (12-15 cr)

SCSE students majoring in computer information systems and technology are required to take FMIS 2201 as part of the pre-minor requirements, not CS 1011.

[FMIS 2201](#) - Information Technology in Business (3.0 cr)

[ACCT 2001](#) - Principles of Financial Accounting (3.0 cr)

or [ACCT 2005](#) *{Inactive}* [LE CAT8] (3.0 cr)

[ECON 2030](#) - Applied Statistics for Business and Economics [LOGIC & QR] (3.0 cr)

or equivalent statistics course

[ECON 1003](#) - Economics and Society [LE CAT8, SOC SCI] (3.0 cr)

or take the following course pair

[ECON 1022](#) - Principles of Economics: Macro [LE CAT6, SOC SCI] (3.0 cr)

[ECON 1023](#) - Principles of Economics: Micro [LE CAT6, SOC SCI] (3.0 cr)

#### Electives (15 cr)

[MGTS 3301](#) - Production and Operations Management (3.0 cr)

[FMIS 3601](#) - Corporate Finance (3.0 cr)

[MGTS 3401](#) - Organizational Behavior and Management (3.0 cr)

[MKTG 3701](#) - Principles of Marketing (3.0 cr)

[MGTS 3801](#) - Human Resource Management (3.0 cr)

## Duluth Campus

# Economics B.A.

Economics

## Labovitz School of Business and Economics

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 120
- Required credits within the major: 48
- Degree: Bachelor of Arts

Economics is the study of social, business, and individual decision making and the goals, incentives, institutions, and constraints affecting those decisions. The B.A. Economics curriculum combines the classical liberal arts and modern quantitative approaches and is designed for students pursuing a second major or minor in traditional liberal arts disciplines or in mathematics and statistics.

The B.A. prepares students for careers in business and government, the study of law, and graduate work in economics, management, public policy, and related fields. Business careers that require the analytical training of an economist include banking, management, insurance, marketing research, and securities trading. Economists who work for government agencies assess economic conditions in the United States and abroad and predict the economic impact of specific changes in legislation or public policy. Government careers include those in foreign and intelligence service, regulatory agencies, and international trade.

Majors are encouraged to select a discipline that complements their chosen career path or builds on their analytical training. Students have considerable flexibility in designing their major to ensure it meets personal and professional interests and needs. Students should consult their department adviser to define the focus and coverage of their program and select courses in other disciplines. Students interested in graduate study should plan on taking both ECON 3030 and ECON 4213. The department faculty welcomes and encourages student interaction with other students and the faculty through activities such as UROP projects, Omicron Delta Epsilon (honorary society for economics), Economics Club, and other activities and events.

Honors Requirements: The department honors program recognizes majors who demonstrate outstanding academic performance. Department honors are noted in the commencement bulletin and by the following notation on the student's transcript: Graduated With Distinction in Economics.

To be eligible, degree candidates must earn a 3.20 GPA overall. In addition, candidates must earn a 3.20 GPA in economics courses and satisfactorily complete a research project under the guidance of a faculty member or complete an approved internship.

## Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

## Admission Requirements

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

### Required prerequisites

#### Introductory Course (1 cr)

Not required for transfer students with 30 or more credits, or for students who change college into LSBE.

[UST 1000](#) - UMD Seminar (1.0 - 2.0 cr)

## General Requirements

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this



- requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
  7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
  8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

## Program Requirements

1. A second field of study (either a minor or another major).
2. At least 20 of the last 30 credits immediately before graduation must be taken at UMD.
3. Completion of the upper division economics core and an overall GPA of 2.80 for an internship and/or independent study.

### Lower Division (17 cr)

- [BLAW 2001](#) - The Legal Environment [LE CAT8, HUMANITIES] (3.0 cr)  
[ECON 1022](#) - Principles of Economics: Macro [LE CAT6, SOC SCI] (3.0 cr)  
[ECON 1023](#) - Principles of Economics: Micro [LE CAT6, SOC SCI] (3.0 cr)

#### Math

- [MATH 1160](#) - Finite Mathematics and Introduction to Calculus [LE CAT2, LOGIC & QR] (5.0 cr)  
or [MATH 1296](#) - Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)  
or [MATH 1596](#) - Honors: Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)

#### Statistics

- [ECON 2030](#) - Applied Statistics for Business and Economics [LOGIC & QR] (3.0 cr)  
or [PSY 3020](#) - Statistical Methods (4.0 cr)  
or [SOC 3155](#) - Quantitative Research Methods and Analysis (4.0 cr)  
or [STAT 1411](#) - Introduction to Statistics [LE CAT2, LOGIC & QR] (3.0 cr)  
or [STAT 3611](#) - Introduction to Probability and Statistics (4.0 cr)

### Upper Division (12 cr)

- [ECON 3022](#) - Intermediate Macroeconomics (3.0 cr)  
[ECON 3023](#) - Intermediate Microeconomics (3.0 cr)  
[ECON 3030](#) - Econometrics I (3.0 cr)  
or [STAT 5511](#) - Regression Analysis (3.0 cr)  
[ECON 3150](#) - Development Economics (3.0 cr)  
or [ECON 3402](#) - Global Economic Issues (3.0 cr)

### Electives (15 cr)

By approval, one 3xxx or above course outside of ECON may be applied. No more than 6 credits of any combination of internship, independent study, or courses outside ECON can be used for upper division electives.

Take 5 or more course(s) totaling 15 or more credit(s) from the following:

Take no more than 3 course(s) from the following:

- ECON 3xxx
- Take 2 or more course(s) totaling 6 or more credit(s) from the following:
- ECON 4xxx

### Advanced Writing Requirement (3 cr)

- [FMIS 3141](#) - Business Communications (3.0 cr)  
or WRIT 31xx

## Duluth Campus

# Economics B.B.A.

Economics

## Labovitz School of Business and Economics

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 120
- Required credits within the major: 100
- Degree: Bachelor of Business Administration

Economics is the study of how societies, businesses, and individuals allocate limited resources to achieve competing ends. The BBA in economics is designed for students who wish to integrate business and economics courses in a way that allows them to analyze business problems with the insight garnered from the economics discipline. In addition to theoretical and applied courses in economics, students pursuing a BBA with a major in economics will take core courses in business, such as accounting, finance, business law, information systems, marketing, human resources, and management.

This degree provides skills and training for careers in business and industry, law, government, politics, teaching, research, and a variety of other areas. The degree also provides a strong foundation for future graduate studies in business, economics, law, and public administration.

## Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

## Admission Requirements

Students must complete 60 credits before admission to the program.

Freshman and transfer students are usually admitted to pre-major status before admission to this major

A GPA above 2.0 is preferred for the following:

- 2.60 already admitted to the degree-granting college
- 2.60 transferring from another University of Minnesota college
- 2.60 transferring from outside the University

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

### Required prerequisites

#### Pre-Major Requirements (37 cr)

- ACCT 2001 - Principles of Financial Accounting (3.0 cr)
- ACCT 2002 - Principles of Managerial Accounting (3.0 cr)
- BLAW 2001 - The Legal Environment [LE CAT8, HUMANITIES] (3.0 cr)
- ECON 1022 - Principles of Economics: Macro [LE CAT6, SOC SCI] (3.0 cr)
- ECON 1023 - Principles of Economics: Micro [LE CAT6, SOC SCI] (3.0 cr)
- ECON 2030 - Applied Statistics for Business and Economics [LOGIC & QR] (3.0 cr)
- FMIS 2201 - Information Technology in Business (3.0 cr)
- LSBE 2000 - Interpersonal and Teamwork Skills (1.0 cr)
- PSY 1003 - General Psychology [LE CAT6, SOC SCI] (4.0 cr)
- UST 1000 - UMD Seminar (1.0 - 2.0 cr)
- WRIT 1120 - College Writing [LE CAT1, WRITING] (3.0 cr)

#### Math

- MATH 1160 - Finite Mathematics and Introduction to Calculus [LE CAT2, LOGIC & QR] (5.0 cr)
- or MATH 1290 - Calculus for the Natural Sciences [LE CAT2, LOGIC & QR] (5.0 cr)
- or MATH 1296 - Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)
- or MATH 1596 - Honors: Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)

#### Communications or Foreign Languages

- COMM 1112 - Public Speaking [LE CAT3, COMM & LAN] (3.0 cr)
- or COMM 1222 - Interpersonal Communication [LE CAT3, LECD CAT03, COMM & LAN] (3.0 cr)
- or LSBE students are encouraged to take at least one year of a college-level foreign language. (see LSBE Advising and Academic Services Office)



## General Requirements

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

## Program Requirements

1. 50% of all required business credits, including the upper division economics elective, must be taken from LSBE faculty.
2. Students must complete a minimum of 30 credits while enrolled in LSBE.
3. No more than 9 credits (3 courses) pertaining to a specific major may be taken abroad, unless an exception is approved by petition.

### LSBE Core (18 cr)

- [MGTS 3301](#) - Production and Operations Management (3.0 cr)
- [FMIS 3601](#) - Corporate Finance (3.0 cr)
- [MGTS 3401](#) - Organizational Behavior and Management (3.0 cr)
- [MKTG 3701](#) - Principles of Marketing (3.0 cr)
- [MGTS 3801](#) - Human Resource Management (3.0 cr)
- [MGTS 4481](#) - Strategic Management (3.0 cr)

### Economics Requirements (24 cr)

#### Requirements (12 cr)

- [ECON 3022](#) - Intermediate Macroeconomics (3.0 cr)
- [ECON 3023](#) - Intermediate Microeconomics (3.0 cr)
- [ECON 3150](#) - Development Economics (3.0 cr)  
or [ECON 3402](#) - Global Economic Issues (3.0 cr)
- [ECON 3030](#) - Econometrics I (3.0 cr)  
or [STAT 5511](#) - Regression Analysis (3.0 cr)

#### Electives (9 cr)

Take 3 or more course(s) totaling 9 or more credit(s) from the following:

- [ECON 3311](#) - Money and Banking (3.0 cr)
- [ECON 3821](#) - Labor Economics: Theory and Issues (3.0 cr)
- [ECON 4315](#) - Monetary Theory and Policy (3.0 cr)
- [ECON 4410](#) - International Economics (3.0 cr)
- [ECON 4512](#) - Firm Decision and Strategy (3.0 cr)
- [ECON 4613](#) - The Economics of Antitrust and Regulation (3.0 cr)

#### Additional Elective (3 cr)

If completed two 4xxx courses above, then one ECON 3xxx, or course outside of ECON, may be applied with prior approval.

Take 1 or more course(s) totaling 3 or more credit(s) from the following:

- [ECON 4xxx](#)

### Advanced Writing and Professional Development (4 cr)

- [FMIS 3141](#) - Business Communications (3.0 cr)  
or [WRIT 3121](#) - Advanced Writing: Business and Organizations (3.0 cr)

LSBE 3000 - Career Development for the Business Professional (1.0 cr)

### Supporting Courses (17 cr)

In addition to economics and international requirements listed below, you may complete up to 3 credits of additional internship credits and upper division (3xxx or above) non-LSBE courses for a total of 17 credits of supporting courses. NOTE: PSY 3020, STAT 3611, and SOC 3155 are equivalent to ECON 2030 and cannot be used to fulfill these requirements.

#### Economics Requirement

Take exactly 1 course(s) from the following:

- ECON 3xxx
- ECON 4xxx

#### International Requirement

Take exactly 1 course(s) from the following:

- ACCT 4505 - International Accounting (3.0 cr)
- AMIN 3410 - Fur Trade in Canada and the United States [CDIVERSITY] (3.0 cr)
- ANTH 3628 - Women in Cross-Cultural Perspective (3.0 cr)
- ANTH 3632 - Latin American Cultures (3.0 cr)
- ANTH 3638 - Peoples and Cultures of the Middle East (3.0 cr)
- ECON 3150 - Development Economics (3.0 cr)
- ECON 3402 - Global Economic Issues (3.0 cr)
- ECON 4410 - International Economics (3.0 cr)
- ENGL 3501 - British Literature I [HUMANITIES] (4.0 cr)
- ENGL 3502 - British Literature II [HUMANITIES] (4.0 cr)
- ENGL 5566 - Irish Literary Revival (4.0 cr)
- ENGL 5583 - British Novel (4.0 cr)
- FMIS 3649 - International Finance (3.0 cr)
- FR 4412 - Contemporary French Culture and Society [HUMANITIES, GLOBAL PER] (4.0 cr)
- FR 4422 - 20th-Century Novel [HUMANITIES] (4.0 cr)
- FST 4225 - INTB 4201, Chinese Business and Economics (3.0 cr)
- FST 4295 - INTB 4211 Innovation in Ireland (GLOBAL PER) [GLOBAL PER] (3.0 cr)
- GEOG 3461 - Geography of Global Resources [SUSTAIN] (3.0 cr)
- GER 4302 - German Women Writers and Filmmakers [HUMANITIES] (4.0 cr)
- GER 4305 - German Cinema [HUMANITIES] (4.0 cr)
- GER 4404 - Contemporary Germany [HUMANITIES, GLOBAL PER] (4.0 cr)
- HCM 4560 - International Comparisons of Health Care Systems (3.0 cr)
- HIST 3243 - Europe in Crisis in the 20th Century (4.0 cr)
- HIST 3244 - History of Holocaust (4.0 cr)
- HIST 3257 - Modern France (4.0 cr)
- HIST 3264 - Imperial Russia (4.0 cr)
- HIST 3386 - The United States and the World since 1898 (4.0 cr)
- HIST 3615 - Modern Africa (4.0 cr)
- HIST 3616 - Society and Culture in 20th-Century Africa (4.0 cr)
- HIST 3726 - Modern Middle East: 18th Century-Present (4.0 cr)
- HIST 3825 - Islamic History from Muhammad to the Ottomans (4.0 cr)
- MGTS 4474 - International Management (3.0 cr)
- MGTS 4861 - International Human Resource Management (3.0 cr)
- MKTG 3781 - International Marketing (3.0 cr)
- POL 3451 - Theories of International Relations (4.0 cr)
- POL 3456 - International Security: War and More (4.0 cr)
- POL 3517 - Western European Political Systems (4.0 cr)
- POL 3570 - Politics of Developing Nations (3.0 cr)
- SOC 3945 - Social Stratification (3.0 cr)
- SPAN 3042 - Hispanic American Civilization and Culture [HUMANITIES, GLOBAL PER] (4.0 cr)
- SPAN 3044 - Civilization, Cultures and Communities of Spain [HUMANITIES, GLOBAL PER] (4.0 cr)
- SPAN 4011 - Hispanic American Prose [HUMANITIES] (4.0 cr)
- SPAN 4018 - Hispanic America From Within [HUMANITIES] (4.0 cr)
- SPAN 4027 - Contemporary Literature and Culture of Spain [HUMANITIES] (4.0 cr)
- WS 3000 - Transnational Perspectives on Feminism [SOC SCI, GLOBAL PER] (3.0 cr)
- WS 3001 - Gender Relations in the Global South [GLOBAL PER] (3.0 cr)
- WS 3002 - Latin American Women: Culture and Politics (3.0 cr)
- WS 3400 - Women and Film [GLOBAL PER] (3.0 cr)



## Duluth Campus

# Economics Minor

Economics

## Labovitz School of Business and Economics

- Program Type: Undergraduate minor related to major
- Requirements for this program are current for Fall 2016
- Required credits in this minor: 29 to 30

The economics minor provides a basic overview of economics for students interested in a complementary discipline.

## Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

## Minor Requirements

### Lower Division (17 - 18 cr)

[ECON 1022](#) - Principles of Economics: Macro [LE CAT6, SOC SCI] (3.0 cr)

[ECON 1023](#) - Principles of Economics: Micro [LE CAT6, SOC SCI] (3.0 cr)

[BLAW 2001](#) - The Legal Environment [LE CAT8, HUMANITIES] (3.0 cr)

### Math

[MATH 1160](#) - Finite Mathematics and Introduction to Calculus [LE CAT2, LOGIC & QR] (5.0 cr)

or [MATH 1296](#) - Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)

or [MATH 1596](#) - Honors: Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)

### Statistics

[ECON 2030](#) - Applied Statistics for Business and Economics [LOGIC & QR] (3.0 cr)

or [PSY 3020](#) - Statistical Methods (4.0 cr)

or [SOC 3155](#) - Quantitative Research Methods and Analysis (4.0 cr)

or [STAT 1411](#) - Introduction to Statistics [LE CAT2, LOGIC & QR] (3.0 cr)

or [STAT 3611](#) - Introduction to Probability and Statistics (4.0 cr)

### Upper Division (3 cr)

[ECON 3022](#) - Intermediate Macroeconomics (3.0 cr)

or [ECON 3023](#) - Intermediate Microeconomics (3.0 cr)

### Electives (9 cr)

No more than 3 credits of any combination of internship or independent study can be used for upper division electives.

Take 9 or more credit(s) from the following:

- ECON 3xxx
- ECON 4xxx

### **Duluth Campus**

## **Entrepreneurship B.B.A**

*Management Studies*

### **Labovitz School of Business and Economics**

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 120
- Required credits within the major: 98
- none
- Degree: Bachelor of Business Administration

Entrepreneurship focuses on the creation of social and economic value by developing core capabilities of idea generation, opportunity recognition, resource acquisition, and entrepreneurial management. These capabilities draw on multi-disciplinary experiences including forming teams, constructing business models, talking with partners and customers, and assessing feasibility while launching a new venture or initiative. The skills and competencies gained by studying entrepreneurship are vital for the success of any business or organization, including nascent startup, corporation, family, nonprofit, global, franchise, or any other setting.

Labovitz School of Business and Economic's (LSBE) Entrepreneurship Program integrates the knowledge and experiences gained in other disciplines, as well as from the field of entrepreneurship, into an understanding of the process of new venture creation, and the management of entrepreneurial businesses. The program provides students with both the breadth and depth of skills necessary to understand the strategic challenges facing a firm: to identify, analyze, and pursue new growth opportunities, and to communicate effectively with critical stakeholders in order to mobilize the support necessary for the creation of new products and services, or the creation of one's own company.

### **Program Delivery**

This program is available:

- via classroom (the majority of instruction is face-to-face)

### **Admission Requirements**

Students must complete 60 credits before admission to the program.

Freshman and transfer students are usually admitted to pre-major status before admission to this major

A GPA above 2.0 is preferred for the following:

- 2.60 already admitted to the degree-granting college
- 2.60 transferring from another University of Minnesota college
- 2.60 transferring from outside the University

Freshmen and transfer students are typically admitted as pre-business students for all B.B.A. majors. Admission to candidacy status, which allows access to upper division LSBE classes, typically occurs at the junior level when students have successfully completed all pre-major (pre-candidacy) course requirements, and met all of the GPA standards. Students with 2.60 overall GPA, and 2.0 internal and pre-major GPAs, are admitted upon completion of pre-major courses; students with 2.00-2.59 overall GPA, and 2.00 internal and pre-major GPAs, are pooled and reviewed for evidence of academic success in LSBE majors.

Students who do not qualify for admission to candidacy may not take upper division LSBE courses (excluding some economics courses) without permission of the director of Student Affairs.

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

#### **Required prerequisites**

##### **Introductory Course (1 cr)**

Not required for transfer students with 30 or more credits, or for students who change college to LSBE.

[UST 1000](#) - UMD Seminar (1.0 - 2.0 cr)

##### **Pre-major Requirements (37 cr)**

Additional non-LSBE courses to bring total to 60 pre-candidacy credits. Non-LSBE statistics courses cannot be used to fulfill elective requirements.

[ACCT 2001](#) - Principles of Financial Accounting (3.0 cr)

[ACCT 2002](#) - Principles of Managerial Accounting (3.0 cr)

[BLAW 2001](#) - The Legal Environment [LE CAT8, HUMANITIES] (3.0 cr)



[ECON 1022](#) - Principles of Economics: Macro [LE CAT6, SOC SCI] (3.0 cr)  
[ECON 1023](#) - Principles of Economics: Micro [LE CAT6, SOC SCI] (3.0 cr)  
[ECON 2030](#) - Applied Statistics for Business and Economics [LOGIC & QR] (3.0 cr)  
[FMIS 2201](#) - Information Technology in Business (3.0 cr)  
[LSBE 2000](#) - Interpersonal and Teamwork Skills (1.0 cr)  
[PSY 1003](#) - General Psychology [LE CAT6, SOC SCI] (4.0 cr)  
[WRIT 1120](#) - College Writing [LE CAT1, WRITING] (3.0 cr)

#### **Communications or Foreign Languages**

[COMM 1112](#) - Public Speaking [LE CAT3, COMM & LAN] (3.0 cr)  
or [COMM 1222](#) - Interpersonal Communication [LE CAT3, LECD CAT03, COMM & LAN] (3.0 cr)  
or LSBE students are encouraged to take at least one year of a college-level foreign language. (See LSBE Advising and Academic Services Office)  
[MATH 1160](#) - Finite Mathematics and Introduction to Calculus [LE CAT2, LOGIC & QR] (5.0 cr)  
or [MATH 1290](#) - Calculus for the Natural Sciences [LE CAT2, LOGIC & QR] (5.0 cr)  
or [MATH 1296](#) - Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)  
or [MATH 1596](#) - Honors: Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)

## General Requirements

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

## Program Requirements

1. LSBE students are encouraged to take at least one year of college-level foreign language.
2. 50% of all required business credits, including the upper-division economics elective, must be taken from LSBE faculty.
3. Students must complete a minimum of 30 credits while enrolled in LSBE.
4. No more than 9 credits (3 courses) pertaining to a specific major may be taken abroad, unless an exception is approved by petition.

#### **LSBE Core (18 cr)**

[FMIS 3601](#) - Corporate Finance (3.0 cr)  
[MGTS 3301](#) - Production and Operations Management (3.0 cr)  
[MGTS 3401](#) - Organizational Behavior and Management (3.0 cr)  
[MGTS 3801](#) - Human Resource Management (3.0 cr)  
[MGTS 4481](#) - Strategic Management (3.0 cr)  
[MKTG 3701](#) - Principles of Marketing (3.0 cr)

#### **Entrepreneurship Major (21 cr)**

##### **Group A**

[BLAW 3201](#) - Law for Entrepreneurs (3.0 cr)  
[MGTS 4472](#) - Entrepreneurship (3.0 cr)  
[MGTS 4921](#) - New Venture Financing (3.0 cr)  
[MKTG 4741](#) - Developing and Marketing New Products (3.0 cr)

MGTS 4961 - Entrepreneurial Capstone Experience (3.0 cr)  
or MGTS 4997 - Entrepreneurial Internship (1.0 - 6.0 cr)

#### Group B

Take 1 or more course(s) totaling 3 or more credit(s) from the following:

- MGTS 4473 - Management of Innovation and Technology (3.0 cr)
- MGTS 4931 - Family Business Management (3.0 cr)
- MGTS 4941 - Social Entrepreneurship (3.0 cr)
- MGTS 4951 - Environmental Entrepreneurship (3.0 cr)

#### Group C

Any additional course from Group B electives may also be taken.

Take 3 or more credit(s) from the following:

- ACCT 3201 - Cost Accounting (3.0 cr)
- ACCT 3701 - Small Business Initiative in Accounting (1.0 - 2.0 cr)
- ECON 3721 - Natural Resource and Energy Economics (3.0 cr)
- ECON 3777 - Environmental Economics (3.0 cr)
- ECON 4512 - Firm Decision and Strategy (3.0 cr)
- MGTS 4421 - Managing Change (3.0 cr)
- MGTS 4443 - Teams in Organizations (3.0 cr)
- MGTS 4461 - Business Ethics (3.0 cr)
- MGTS 4463 - Sustainability and Sustainable Management (3.0 cr)
- MGTS 4475 - Negotiations, Bargaining and Conflict Resolution (3.0 cr)
- MGTS 4483 - Cooperative Strategy and Strategic Alliances (3.0 cr)
- MKTG 3721 - Social Media Marketing (3.0 cr)
- MKTG 3741 - Fundamentals of Selling (3.0 cr)
- MKTG 4731 - Consumer Behavior (3.0 cr)
- MKTG 4751 - Retailing (3.0 cr)
- MKTG 4781 - Marketing Management and Strategy (3.0 cr)

#### Supporting Courses (17 cr)

In addition to economics and international requirements listed below, you may complete up to 3 credits of additional internship credits and upper division (3xxx or above) non-LSBE courses, for a total of 17 credits of supporting courses. NOTE: PSY 3020, STAT 3611 and SOC 3155 are equivalent to ECON 2030 and cannot be used to fulfill these requirements.

##### Economics Requirement

Take exactly 1 course(s) from the following:

- ECON 3xxx
- ECON 4xxx

##### International Requirement

Take exactly 1 course(s) from the following:

- ACCT 4505 - International Accounting (3.0 cr)
- AMIN 3410 - Fur Trade in Canada and the United States [CDIVERSITY] (3.0 cr)
- ANTH 3628 - Women in Cross-Cultural Perspective (3.0 cr)
- ANTH 3632 - Latin American Cultures (3.0 cr)
- ANTH 3638 - Peoples and Cultures of the Middle East (3.0 cr)
- ECON 3150 - Development Economics (3.0 cr)
- ECON 3402 - Global Economic Issues (3.0 cr)
- ECON 4410 - International Economics (3.0 cr)
- ENGL 3501 - British Literature I [HUMANITIES] (4.0 cr)
- ENGL 3502 - British Literature II [HUMANITIES] (4.0 cr)
- ENGL 5566 - Irish Literary Revival (4.0 cr)
- ENGL 5583 - British Novel (4.0 cr)
- FMIS 3649 - International Finance (3.0 cr)
- FR 4412 - Contemporary French Culture and Society [HUMANITIES, GLOBAL PER] (4.0 cr)
- FR 4422 - 20th-Century Novel [HUMANITIES] (4.0 cr)
- FST 4225 - INTB 4201, Chinese Business and Economics (3.0 cr)
- FST 4295 - INTB 4211 Innovation in Ireland (GLOBAL PER) [GLOBAL PER] (3.0 cr)
- GEOG 3461 - Geography of Global Resources [SUSTAIN] (3.0 cr)
- GER 4302 - German Women Writers and Filmmakers [HUMANITIES] (4.0 cr)
- GER 4305 - German Cinema [HUMANITIES] (4.0 cr)
- GER 4404 - Contemporary Germany [HUMANITIES, GLOBAL PER] (4.0 cr)
- HCM 4560 - International Comparisons of Health Care Systems (3.0 cr)
- HIST 3243 - Europe in Crisis in the 20th Century (4.0 cr)
- HIST 3244 - History of Holocaust (4.0 cr)
- HIST 3257 - Modern France (4.0 cr)
- HIST 3264 - Imperial Russia (4.0 cr)
- HIST 3386 - The United States and the World since 1898 (4.0 cr)



- [HIST 3615](#) - Modern Africa (4.0 cr)
- [HIST 3616](#) - Society and Culture in 20th-Century Africa (4.0 cr)
- [HIST 3726](#) - Modern Middle East: 18th Century-Present (4.0 cr)
- [HIST 3825](#) - Islamic History from Muhammad to the Ottomans (4.0 cr)
- [MGTS 4474](#) - International Management (3.0 cr)
- [MGTS 4483](#) - Cooperative Strategy and Strategic Alliances (3.0 cr)
- [MGTS 4861](#) - International Human Resource Management (3.0 cr)
- [MKTG 3781](#) - International Marketing (3.0 cr)
- [POL 3451](#) - Theories of International Relations (4.0 cr)
- [POL 3456](#) - International Security: War and More (4.0 cr)
- [POL 3517](#) - Western European Political Systems (4.0 cr)
- [POL 3570](#) - Politics of Developing Nations (3.0 cr)
- [SOC 3945](#) - Social Stratification (3.0 cr)
- [SPAN 3042](#) - Hispanic American Civilization and Culture [HUMANITIES, GLOBAL PER] (4.0 cr)
- [SPAN 3044](#) - Civilization, Cultures and Communities of Spain [HUMANITIES, GLOBAL PER] (4.0 cr)
- [SPAN 4011](#) - Hispanic American Prose [HUMANITIES] (4.0 cr)
- [SPAN 4018](#) - Hispanic America From Within [HUMANITIES] (4.0 cr)
- [SPAN 4027](#) - Contemporary Literature and Culture of Spain [HUMANITIES] (4.0 cr)
- [WS 3000](#) - Transnational Perspectives on Feminism [SOC SCI, GLOBAL PER] (3.0 cr)
- [WS 3001](#) - Gender Relations in the Global South [GLOBAL PER] (3.0 cr)
- [WS 3002](#) - Latin American Women: Culture and Politics (3.0 cr)
- [WS 3400](#) - Women and Film [GLOBAL PER] (3.0 cr)

**Advanced Writing and Professional Development Requirement (4 cr)**

- [FMIS 3141](#) - Business Communications (3.0 cr)  
or [WRIT 3121](#) - Advanced Writing: Business and Organizations (3.0 cr)
- [LSBE 3000](#) - Career Development for the Business Professional (1.0 cr)

## Duluth Campus

# Entrepreneurship Minor

Management Studies

## Labovitz School of Business and Economics

- Program Type: Undergraduate minor related to major
- Requirements for this program are current for Fall 2016
- Required credits in this minor: 12

Entrepreneurship focuses on the creation of social and economic value by developing core capabilities of idea generation, opportunity recognition, resource acquisition, and entrepreneurial management. The skills and competencies gained by studying entrepreneurship are vital for the success of any business or organization such as nascent startup, corporation, family, nonprofit, global, or franchise.

The Entrepreneurship Minor is an interdisciplinary business minor that augments any degree program in which students learn about product/idea generation, resource acquisition, and aspects of entrepreneurial and new venture management. The minor provides knowledge and skills to develop new products, services, and organizations providing social and economic value. The minor is designed to supplement any major such that students acquire capabilities needed to mobilize the support necessary for the creation of new products and services and/or the creation of one's own company.

## Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

## Admission Requirements

Students must complete 60 credits before admission to the program.

A GPA above 2.0 is preferred for the following:

- 2.60 already admitted to the degree-granting college
- 2.60 transferring from another University of Minnesota college
- 2.60 transferring from outside the University

LSBE majors must meet all pre-major BBA or BAC requirements before applying for candidacy, and the form to declare an Entrepreneurship Minor may be submitted with the application for candidacy or any time after formal admission to an LSBE degree program.

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

## Minor Requirements

### Requirements (12 cr)

- [BLAW 3201](#) - Law for Entrepreneurs (3.0 cr)
- [MGTS 4472](#) - Entrepreneurship (3.0 cr)
- [MGTS 4921](#) - New Venture Financing (3.0 cr)

### Elective

Take 1 or more course(s) totaling 3 or more credit(s) from the following:

- [MGTS 4443](#) - Teams in Organizations (3.0 cr)
- [MGTS 4473](#) - Management of Innovation and Technology (3.0 cr)
- [MGTS 4475](#) - Negotiations, Bargaining and Conflict Resolution (3.0 cr)
- [MGTS 4931](#) - Family Business Management (3.0 cr)
- [MGTS 4941](#) - Social Entrepreneurship (3.0 cr)
- [MGTS 4951](#) - Environmental Entrepreneurship (3.0 cr)
- [MKTG 3721](#) - Social Media Marketing (3.0 cr)
- [MKTG 4741](#) - Developing and Marketing New Products (3.0 cr)

## Duluth Campus

### Finance B.B.A.

Finance & Management Information Sciences

#### Labovitz School of Business and Economics

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 120
- Required credits within the major: 98
- Degree: Bachelor of Business Administration

This professionally-oriented program emphasizes the competencies required for management careers in business, government, public, or social service organizations. The program prepares students for entering careers with management responsibility by providing a breadth and depth of knowledge about organizations, management fundamentals, techniques, processes, and skills, combined with a foundation in the functional areas of accounting, business law, finance, information systems, marketing, operations, and human resource management.

The B.B.A. offers a broad educational experience while preparing students for a variety of technical and management careers. With about one-half of the required coursework from non-business disciplines, emphasis is on the development of a strong liberal arts education that provides a foundation for the required and elective professional courses. The program's core curriculum focuses on the fundamental administrative and functional skills demanded of leaders in today's public and private organizations. Students are permitted sufficient latitude in choosing electives appropriate to their particular professional objectives in finance, health care management, human resource management, organizational management, management information systems, or marketing.

In addition to classroom-based courses, students may participate in internship programs where classroom learning may be applied during professional experience as an employee of a public agency or private business. Students also may participate in the Student to Business Initiative (SBI) which offers the opportunity to use knowledge and skills to identify, analyze, and solve problems confronting small businesses. Both programs provide practical tests of vocational interests and valuable work experience.

The finance major is designed for students pursuing careers in corporate financial management, investment and portfolio management, and management of financial institutions.

Honors Program: Degree candidates must earn a 3.30 GPA in all LSBE upper division courses.

### Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

### Admission Requirements

Freshman and transfer students are usually admitted to pre-major status before admission to this major

A GPA above 2.0 is preferred for the following:

- 2.60 already admitted to the degree-granting college
- 2.60 transferring from another University of Minnesota college
- 2.60 transferring from outside the University

Freshmen and transfer students are typically admitted as pre-business students for all B.B.A. majors. Admission to candidacy status, which allows access to upper division LSBE classes, typically occurs at the junior level when students have successfully completed all pre-major (pre-candidacy) course requirements and met all of the GPA standards. Students with a 2.60 UM and overall and a 2.00 internal and pre-major are admitted upon completion of pre-major courses; students with a 2.00-2.59 UM and overall and a 2.00 internal and pre-major GPAs are pooled and reviewed for evidence of academic success in LSBE majors.

Students who do not qualify for admission to candidacy may not take upper division LSBE courses (excluding some economics courses) without permission of the director of student affairs.

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

#### Required prerequisites

##### Introductory course (1 cr)

Not required for transfer students with 30 or more credits, or for students who change college to LSBE.

[UST 1000](#) - UMD Seminar (1.0 - 2.0 cr)



### Pre-major requirements (37 cr)

Electives: additional courses to bring total to 60 pre-candidacy credits. Non-LSBE statistics courses cannot be used to fulfill elective requirements.

- ACCT 2001 - Principles of Financial Accounting (3.0 cr)
- ACCT 2002 - Principles of Managerial Accounting (3.0 cr)
- BLAW 2001 - The Legal Environment [LE CAT8, HUMANITIES] (3.0 cr)
- ECON 1022 - Principles of Economics: Macro [LE CAT6, SOC SCI] (3.0 cr)
- ECON 1023 - Principles of Economics: Micro [LE CAT6, SOC SCI] (3.0 cr)
- ECON 2030 - Applied Statistics for Business and Economics [LOGIC & QR] (3.0 cr)
- FMIS 2201 - Information Technology in Business (3.0 cr)
- PSY 1003 - General Psychology [LE CAT6, SOC SCI] (4.0 cr)
- WRIT 1120 - College Writing [LE CAT1, WRITING] (3.0 cr)
- LSBE 2000 - Interpersonal and Teamwork Skills (1.0 cr)
- MATH 1160 - Finite Mathematics and Introduction to Calculus [LE CAT2, LOGIC & QR] (5.0 cr)  
or MATH 1290 - Calculus for the Natural Sciences [LE CAT2, LOGIC & QR] (5.0 cr)  
or MATH 1296 - Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)  
or MATH 1596 - Honors: Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)

### Communications or Foreign Languages

- COMM 1112 - Public Speaking [LE CAT3, COMM & LAN] (3.0 cr)
- or COMM 1222 - Interpersonal Communication [LE CAT3, LECD CAT03, COMM & LAN] (3.0 cr)
- or LSBE students are encouraged to take at least one year of college-level foreign language. (See LSBE Advising and Academic Services Office).

## General Requirements

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

## Program Requirements

1. LSBE students are encouraged to take at least one year of college-level foreign language.
2. 50% of all required business credits, including the upper-division economics elective, must be taken from LSBE faculty.
3. Students must complete a minimum of 30 credits while enrolled in LSBE.
4. No more than 9 credits (3 courses) pertaining to a specific major may be taken abroad, unless an exception is approved by petition.

### LSBE Core (18 cr)

- MGTS 3301 - Production and Operations Management (3.0 cr)
- FMIS 3601 - Corporate Finance (3.0 cr)
- MGTS 3401 - Organizational Behavior and Management (3.0 cr)
- MKTG 3701 - Principles of Marketing (3.0 cr)
- MGTS 3801 - Human Resource Management (3.0 cr)

[MGTS 4481](#) - Strategic Management (3.0 cr)

**Finance Group A (9 cr)**

FMIS 3601 - Corporation Finance (3 cr) is a prerequisite for these courses

[FMIS 3612](#) - Managerial Finance (3.0 cr)

[FMIS 3644](#) - Investment Fundamentals (3.0 cr)

[FMIS 3647](#) - Financial Markets and Institutions (3.0 cr)

**Finance Group B (9 cr)**

Take 3 or more course(s) totaling 9 or more credit(s) from the following:

- [FMIS 3619](#) - Analysis of Financial Statements (3.0 cr)
- [FMIS 3649](#) - International Finance (3.0 cr)
- [FMIS 3655](#) - Risk Management and Insurance (3.0 cr)
- [FMIS 3695](#) - Special Topics: (Various Titles to be Assigned) (1.0 - 3.0 cr)
- [FMIS 4615](#) - Derivative Securities (3.0 cr)
- [FMIS 4617](#) - Management of Financial Institutions (3.0 cr)
- [FMIS 4644](#) - Portfolio Management (3.0 cr)

**Finance Group C: (3 cr)**

[FMIS 3697](#) - Finance Internship (1.0 - 6.0 cr)

or [FST 4225](#) - INTB 4201, Chinese Business and Economics (3.0 cr)

or [FST 4295](#) - INTB 4211 Innovation in Ireland (GLOBAL PER) [GLOBAL PER] (3.0 cr)

or any 3xxx or 4xxx course from LSBE

**Advanced Writing and Professional Development (4 cr)**

[FMIS 3141](#) - Business Communications (3.0 cr)

or [WRIT 3121](#) - Advanced Writing: Business and Organizations (3.0 cr)

or [LSBE 3000](#) - Career Development for the Business Professional (1.0 cr)

**Supporting Courses (17 cr)**

In addition to economics and international requirements listed below, you may complete up to 3 credits of additional internship credits and upper division (3xxx or above) non-LSBE courses, for a total of 17 credits of supporting courses. NOTE: PSY 3020, STAT 3611 and SOC 3155 are equivalent to ECON 2030, and cannot be used to fulfill these requirements.

**Economics Requirement**

Take exactly 1 course(s) from the following:

- ECON 3xxx
- ECON 4xxx

**International Requirement**

Take exactly 1 course(s) from the following:

- [ACCT 4505](#) - International Accounting (3.0 cr)
- [AMIN 3410](#) - Fur Trade in Canada and the United States [CDIVERSITY] (3.0 cr)
- [ANTH 3628](#) - Women in Cross-Cultural Perspective (3.0 cr)
- [ANTH 3632](#) - Latin American Cultures (3.0 cr)
- [ANTH 3638](#) - Peoples and Cultures of the Middle East (3.0 cr)
- [ECON 3150](#) - Development Economics (3.0 cr)
- [ECON 3402](#) - Global Economic Issues (3.0 cr)
- [ECON 4410](#) - International Economics (3.0 cr)
- [ENGL 3501](#) - British Literature I [HUMANITIES] (4.0 cr)
- [ENGL 3502](#) - British Literature II [HUMANITIES] (4.0 cr)
- [ENGL 5566](#) - Irish Literary Revival (4.0 cr)
- [ENGL 5583](#) - British Novel (4.0 cr)
- [FMIS 3649](#) - International Finance (3.0 cr)
- [FR 4412](#) - Contemporary French Culture and Society [HUMANITIES, GLOBAL PER] (4.0 cr)
- [FR 4422](#) - 20th-Century Novel [HUMANITIES] (4.0 cr)
- [FST 4225](#) - INTB 4201, Chinese Business and Economics (3.0 cr)
- [FST 4295](#) - INTB 4211 Innovation in Ireland (GLOBAL PER) [GLOBAL PER] (3.0 cr)
- [GEOG 3461](#) - Geography of Global Resources [SUSTAIN] (3.0 cr)
- [GER 4302](#) - German Women Writers and Filmmakers [HUMANITIES] (4.0 cr)
- [GER 4305](#) - German Cinema [HUMANITIES] (4.0 cr)
- [GER 4404](#) - Contemporary Germany [HUMANITIES, GLOBAL PER] (4.0 cr)
- [HCM 4560](#) - International Comparisons of Health Care Systems (3.0 cr)
- [HIST 3243](#) - Europe in Crisis in the 20th Century (4.0 cr)
- [HIST 3244](#) - History of Holocaust (4.0 cr)
- [HIST 3257](#) - Modern France (4.0 cr)
- [HIST 3264](#) - Imperial Russia (4.0 cr)



- HIST 3386 - The United States and the World since 1898 (4.0 cr)
- HIST 3615 - Modern Africa (4.0 cr)
- HIST 3616 - Society and Culture in 20th-Century Africa (4.0 cr)
- HIST 3726 - Modern Middle East: 18th Century-Present (4.0 cr)
- HIST 3825 - Islamic History from Muhammad to the Ottomans (4.0 cr)
- MGTS 4474 - International Management (3.0 cr)
- MGTS 4483 - Cooperative Strategy and Strategic Alliances (3.0 cr)
- MGTS 4861 - International Human Resource Management (3.0 cr)
- MKTG 3781 - International Marketing (3.0 cr)
- POL 3451 - Theories of International Relations (4.0 cr)
- POL 3456 - International Security: War and More (4.0 cr)
- POL 3517 - Western European Political Systems (4.0 cr)
- POL 3570 - Politics of Developing Nations (3.0 cr)
- SOC 3945 - Social Stratification (3.0 cr)
- SPAN 3042 - Hispanic American Civilization and Culture [HUMANITIES, GLOBAL PER] (4.0 cr)
- SPAN 3044 - Civilization, Cultures and Communities of Spain [HUMANITIES, GLOBAL PER] (4.0 cr)
- SPAN 4011 - Hispanic American Prose [HUMANITIES] (4.0 cr)
- SPAN 4018 - Hispanic America From Within [HUMANITIES] (4.0 cr)
- SPAN 4027 - Contemporary Literature and Culture of Spain [HUMANITIES] (4.0 cr)
- WS 3000 - Transnational Perspectives on Feminism [SOC SCI, GLOBAL PER] (3.0 cr)
- WS 3001 - Gender Relations in the Global South [GLOBAL PER] (3.0 cr)
- WS 3002 - Latin American Women: Culture and Politics (3.0 cr)
- WS 3400 - Women and Film [GLOBAL PER] (3.0 cr)



## Duluth Campus

### Finance Minor

*Finance & Management Information Sciences*

#### Labovitz School of Business and Economics

- Program Type: Undergraduate minor related to major
- Requirements for this program are current for Fall 2016
- Required credits in this minor: 12 to 30

The minor in finance can be used as a complement to a related discipline. It provides a comprehensive overview of the theories and common practices in corporate finance, investment and portfolio management, and the management of financial institutions.

The finance minor is available to LSBE and Non-LSBE students.

### Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

### Admission Requirements

A GPA above 2.0 is preferred for the following:

- 2.60 already admitted to the degree-granting college
- 2.60 transferring from another University of Minnesota college
- 2.60 transferring from outside the University

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

### Minor Requirements

### Program Sub-plans

Students are required to complete one of the following sub-plans.

#### Finance Minor for BBA/BAcc Students

##### Required Courses (12 cr)

- [FMIS 3601](#) - Corporate Finance (3.0 cr)
- [FMIS 3644](#) - Investment Fundamentals (3.0 cr)
- [FMIS 3647](#) - Financial Markets and Institutions (3.0 cr)

##### Electives

Take at most 3 credit(s) from the following:

- [FMIS 3612](#) - Managerial Finance (3.0 cr)
- [FMIS 3619](#) - Analysis of Financial Statements (3.0 cr)
- [FMIS 3649](#) - International Finance (3.0 cr)
- [FMIS 3655](#) - Risk Management and Insurance (3.0 cr)
- [FMIS 4615](#) - Derivative Securities (3.0 cr)
- [FMIS 4617](#) - Management of Financial Institutions (3.0 cr)
- [FMIS 4644](#) - Portfolio Management (3.0 cr)

#### Finance Minor for Non-LSBE Students

A minimum overall and UM GPA of 2.60 and 2.00 in LSBE courses and completion of the pre-minor core are required for automatic admission to this minor. Students with GPAs between 2.00 and 2.59 should consult with the LSBE Advising and Academic Services Office.

#### Non-LSBE Students Pre-Minor Core (15 - 18 cr)

Students are encouraged to complete ECON 1022 and 1023 as pre-minor core prerequisites.

- [ACCT 2001](#) - Principles of Financial Accounting (3.0 cr)



[ECON 2030](#) - Applied Statistics for Business and Economics [LOGIC & QR] (3.0 cr)

[FMIS 2201](#) - Information Technology in Business (3.0 cr)

[MGTS 1101](#) - Introduction to Business [LE CAT8] (3.0 cr)

[ECON 1003](#) - Economics and Society [LE CAT8, SOC SCI] (3.0 cr)

or [ECON 1022](#) - Principles of Economics: Macro [LE CAT6, SOC SCI] (3.0 cr)

[ECON 1023](#) - Principles of Economics: Micro [LE CAT6, SOC SCI] (3.0 cr)

**Required Courses (12 cr)**

[FMIS 3601](#) - Corporate Finance (3.0 cr)

[FMIS 3644](#) - Investment Fundamentals (3.0 cr)

**Electives**

Take at most 6 credit(s) from the following:

- [FMIS 3612](#) - Managerial Finance (3.0 cr)
- [FMIS 3619](#) - Analysis of Financial Statements (3.0 cr)
- [FMIS 3647](#) - Financial Markets and Institutions (3.0 cr)
- [FMIS 3649](#) - International Finance (3.0 cr)
- [FMIS 3655](#) - Risk Management and Insurance (3.0 cr)
- [FMIS 4615](#) - Derivative Securities (3.0 cr)
- [FMIS 4617](#) - Management of Financial Institutions (3.0 cr)
- [FMIS 4644](#) - Portfolio Management (3.0 cr)

### **Duluth Campus**

## **Financial Markets Finance B.B.A.**

*Finance & Management Information Sciences*

### **Labovitz School of Business and Economics**

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 120
- Required credits within the major: 98
- Degree: Bachelor of Business Administration

LSBE students may wish to apply for the financial markets finance major program, an intensive academic and experiential preparation for careers in the financial services industry. Classroom instruction is combined with independent laboratory activities, and the program is centered upon four foundational elements: academic studies, the January term practicum in Duluth and the Twin Cities, financial markets laboratory work, and management of the "Bulldog" Investment Fund. Students interested in the program are strongly encouraged to meet with the Financial Markets Program Director.

Juniors who have a strong interest in the financial industry, and who have completed or are currently registered for FMIS 3601 - Corporation Finance, are encouraged to speak with the program director prior to registration for spring semester. An initial informational meeting or review of program opportunities helps interested students determine whether or not to pursue formal application and the appropriate prerequisite courses.

During spring semester, the application and selection process involves a thorough review of each candidate's application and academic performance, as well as a formal interview. Applicants are reviewed and selected according to their skills, academic qualifications and "fit" with the program in terms of career goals and interests. Candidates are expected to maintain high ethical standards.

### **Program Delivery**

This program is available:

- via classroom (the majority of instruction is face-to-face)

### **Admission Requirements**

Students must complete 3 courses before admission to the program.

Freshman and transfer students are usually admitted to pre-major status before admission to this major

A GPA above 2.0 is preferred for the following:

- 2.60 already admitted to the degree-granting college
- 2.60 transferring from another University of Minnesota college
- 2.60 transferring from outside the University

Students must complete FMIS 3601, FMIS 3619, and FMIS 3644 before admission to the program.

Students must first meet admission to candidacy requirements and be admitted to the finance major, which is necessary to be eligible for the prerequisite courses. Students are then admitted into the financial markets finance major after successful completion of the prerequisites and selection from the individual interview process.

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

#### **Required prerequisites**

##### **Introductory Course (1 cr)**

This course is not required for students who change colleges into Labovitz School of Business and Economics.

[UST 1000](#) - UMD Seminar (1.0 - 2.0 cr)

##### **Pre-major Requirements (37 cr)**

Electives: additional courses to bring total to 60 pre-candidacy credits. Non-LSBE statistics courses cannot be used to fulfill elective requirements.

[ACCT 2001](#) - Principles of Financial Accounting (3.0 cr)

[ACCT 2002](#) - Principles of Managerial Accounting (3.0 cr)

[BLAW 2001](#) - The Legal Environment [LE CAT8, HUMANITIES] (3.0 cr)

[ECON 1022](#) - Principles of Economics: Macro [LE CAT6, SOC SCI] (3.0 cr)

[ECON 1023](#) - Principles of Economics: Micro [LE CAT6, SOC SCI] (3.0 cr)



[ECON 2030](#) - Applied Statistics for Business and Economics [LOGIC & QR] (3.0 cr)  
[FMIS 2201](#) - Information Technology in Business (3.0 cr)  
[LSBE 2000](#) - Interpersonal and Teamwork Skills (1.0 cr)  
[PSY 1003](#) - General Psychology [LE CAT6, SOC SCI] (4.0 cr)  
[WRIT 1120](#) - College Writing [LE CAT1, WRITING] (3.0 cr)  
[MATH 1160](#) - Finite Mathematics and Introduction to Calculus [LE CAT2, LOGIC & QR] (5.0 cr)  
or [MATH 1290](#) - Calculus for the Natural Sciences [LE CAT2, LOGIC & QR] (5.0 cr)  
or [MATH 1296](#) - Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)  
or [MATH 1596](#) - Honors: Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)

#### **Communications or Foreign Languages**

[COMM 1112](#) - Public Speaking [LE CAT3, COMM & LAN] (3.0 cr)  
or [COMM 1222](#) - Interpersonal Communication [LE CAT3, LECD CAT03, COMM & LAN] (3.0 cr)  
or LSBE students are encouraged to take at least one year of college-level foreign language. (See LSBE Advising and Academic Services Office.)

## General Requirements

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

## Program Requirements

1. LSBE students are encouraged to take at least one year of college-level foreign language.
2. 50% of all required business credits, including the upper-division economics elective, must be taken from LSBE faculty.
3. Students must complete a minimum of 30 credits while enrolled in LSBE.
4. No more than 9 credits (3 courses) pertaining to a specific major may be taken abroad, unless an exception is approved by petition.

#### **LSBE Core (18 cr)**

[MGTS 3301](#) - Production and Operations Management (3.0 cr)  
[FMIS 3601](#) - Corporate Finance (3.0 cr)  
[MGTS 3401](#) - Organizational Behavior and Management (3.0 cr)  
[MKTG 3701](#) - Principles of Marketing (3.0 cr)  
[MGTS 3801](#) - Human Resource Management (3.0 cr)  
[MGTS 4481](#) - Strategic Management (3.0 cr)

#### **Group A Requirements (12 cr)**

Take exactly 4 courses for exactly 12 credits.  
[FMIS 3612](#) - Managerial Finance (3.0 cr)  
[FMIS 3619](#) - Analysis of Financial Statements (3.0 cr)  
[FMIS 3644](#) - Investment Fundamentals (3.0 cr)  
[FMIS 3647](#) - Financial Markets and Institutions (3.0 cr)  
or [FMIS 3649](#) - International Finance (3.0 cr)  
or [FMIS 4615](#) - Derivative Securities (3.0 cr)

or [FMIS 4644](#) - Portfolio Management (3.0 cr)

**Group B Requirements (9 cr)**

Take exactly 3 courses for exactly 9 credits.

[FMIS 4616](#) - Security Analysis (3.0 cr)

[FMIS 4620](#) - Portfolio Theory and Analysis (3.0 cr)

[FMIS 4624](#) - Applied Portfolio Management (3.0 cr)

**Advanced Writing and Professional Development (4 cr)**

[FMIS 3141](#) - Business Communications (3.0 cr)

or [WRIT 3121](#) - Advanced Writing: Business and Organizations (3.0 cr)

or [LSBE 3000](#) - Career Development for the Business Professional (1.0 cr)

**Supporting Courses (17 cr)**

In addition to economics and international requirements listed below, you may complete up to 3 credits of additional internship credits and upper division (3xxx or above) non-LSBE courses for a total of 17 credits of supporting courses. NOTE: PSY 3020, STAT 3611 and SOC 3155 are equivalent to ECON 2030 and cannot be used to fulfill these requirements.

**Economics Requirement**

Take exactly 1 course(s) from the following:

•[ECON 3xxx](#)

•[ECON 4xxx](#)

**International Requirement**

Take exactly 1 course(s) from the following:

•[ACCT 4505](#) - International Accounting (3.0 cr)

•[AMIN 3410](#) - Fur Trade in Canada and the United States [CDIVERSITY] (3.0 cr)

•[ANTH 3628](#) - Women in Cross-Cultural Perspective (3.0 cr)

•[ANTH 3632](#) - Latin American Cultures (3.0 cr)

•[ANTH 3638](#) - Peoples and Cultures of the Middle East (3.0 cr)

•[ECON 3150](#) - Development Economics (3.0 cr)

•[ECON 3402](#) - Global Economic Issues (3.0 cr)

•[ECON 4410](#) - International Economics (3.0 cr)

•[ENGL 3501](#) - British Literature I [HUMANITIES] (4.0 cr)

•[ENGL 3502](#) - British Literature II [HUMANITIES] (4.0 cr)

•[ENGL 5566](#) - Irish Literary Revival (4.0 cr)

•[ENGL 5583](#) - British Novel (4.0 cr)

•[FMIS 3649](#) - International Finance (3.0 cr)

•[FR 4412](#) - Contemporary French Culture and Society [HUMANITIES, GLOBAL PER] (4.0 cr)

•[FR 4422](#) - 20th-Century Novel [HUMANITIES] (4.0 cr)

•[FST 4225](#) - INTB 4201, Chinese Business and Economics (3.0 cr)

•[FST 4295](#) - INTB 4211 Innovation in Ireland (GLOBAL PER) [GLOBAL PER] (3.0 cr)

•[GEOG 3461](#) - Geography of Global Resources [SUSTAIN] (3.0 cr)

•[GER 4302](#) - German Women Writers and Filmmakers [HUMANITIES] (4.0 cr)

•[GER 4305](#) - German Cinema [HUMANITIES] (4.0 cr)

•[GER 4404](#) - Contemporary Germany [HUMANITIES, GLOBAL PER] (4.0 cr)

•[HCM 4560](#) - International Comparisons of Health Care Systems (3.0 cr)

•[HIST 3243](#) - Europe in Crisis in the 20th Century (4.0 cr)

•[HIST 3244](#) - History of Holocaust (4.0 cr)

•[HIST 3257](#) - Modern France (4.0 cr)

•[HIST 3264](#) - Imperial Russia (4.0 cr)

•[HIST 3386](#) - The United States and the World since 1898 (4.0 cr)

•[HIST 3615](#) - Modern Africa (4.0 cr)

•[HIST 3616](#) - Society and Culture in 20th-Century Africa (4.0 cr)

•[HIST 3726](#) - Modern Middle East: 18th Century-Present (4.0 cr)

•[HIST 3825](#) - Islamic History from Muhammad to the Ottomans (4.0 cr)

•[MGTS 4474](#) - International Management (3.0 cr)

•[MGTS 4483](#) - Cooperative Strategy and Strategic Alliances (3.0 cr)

•[MGTS 4861](#) - International Human Resource Management (3.0 cr)

•[MKTG 3781](#) - International Marketing (3.0 cr)

•[POL 3451](#) - Theories of International Relations (4.0 cr)

•[POL 3456](#) - International Security: War and More (4.0 cr)

•[POL 3517](#) - Western European Political Systems (4.0 cr)

•[POL 3570](#) - Politics of Developing Nations (3.0 cr)

•[SOC 3945](#) - Social Stratification (3.0 cr)

•[SPAN 3042](#) - Hispanic American Civilization and Culture [HUMANITIES, GLOBAL PER] (4.0 cr)

•[SPAN 3044](#) - Civilization, Cultures and Communities of Spain [HUMANITIES, GLOBAL PER] (4.0 cr)



- SPAN 4011 - Hispanic American Prose [HUMANITIES] (4.0 cr)
- SPAN 4018 - Hispanic America From Within [HUMANITIES] (4.0 cr)
- SPAN 4027 - Contemporary Literature and Culture of Spain [HUMANITIES] (4.0 cr)
- WS 3000 - Transnational Perspectives on Feminism [SOC SCI, GLOBAL PER] (3.0 cr)
- WS 3001 - Gender Relations in the Global South [GLOBAL PER] (3.0 cr)
- WS 3002 - Latin American Women: Culture and Politics (3.0 cr)
- WS 3400 - Women and Film [GLOBAL PER] (3.0 cr)



### **Duluth Campus**

## **Financial Markets Minor**

*Finance & Management Information Sciences*

### **Labovitz School of Business and Economics**

- Program Type: Undergraduate minor related to major
- Requirements for this program are current for Fall 2016
- Required credits in this minor: 18

LSBE candidates or economics majors may wish to apply for the financial markets minor program, an intensive academic and experiential preparation for careers in the financial services industry. Students interested in this program are strongly encouraged to meet with the Financial Markets Program Director.

### **Program Delivery**

This program is available:

- via classroom (the majority of instruction is face-to-face)

### **Admission Requirements**

Students must complete 3 courses before admission to the program.

Freshman and transfer students are usually admitted to pre-major status before admission to this major

A GPA above 2.0 is preferred for the following:

- 2.50 already admitted to the degree-granting college
- 2.50 transferring from another University of Minnesota college
- 2.50 transferring from outside the University

Admission to the minor is based on the same GPA requirements as admission to candidacy for LSBE baccalaureate degrees.

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

### **Required prerequisites**

#### **Required pre-requisites (9 cr)**

Students are admitted into the minor program after successful completion of the prerequisite courses and selection from the individual interview process.

[FMIS 3601](#) - Corporate Finance (3.0 cr)

[FMIS 3619](#) - Analysis of Financial Statements (3.0 cr)

[FMIS 3644](#) - Investment Fundamentals (3.0 cr)

### **Minor Requirements**

#### **Required Courses (9 cr)**

Take 3 courses totaling exactly 9 credits.

[FMIS 4616](#) - Security Analysis (3.0 cr)

[FMIS 4620](#) - Portfolio Theory and Analysis (3.0 cr)

[FMIS 4624](#) - Applied Portfolio Management (3.0 cr)

### Duluth Campus

## Financial Planning B.B.A.

Finance & Management Information Sciences

### Labovitz School of Business and Economics

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 120
- Required credits within the major: 98
- Degree: Bachelor of Business Administration

The BBA in financial planning (FP) integrates the knowledge, skills, and experiences gained in the core business and economics disciplines such as accounting, economics, finance, management, and marketing, as well as from the field of financial planning, into an understanding of the financial planning domains and business processes. Students will learn how to utilize new technologies to study and analyze investments, risks, retirement, insurance, and estate planning. The program provides students with a foundation for immediate integration into the practices in the financial planning industry. Students pursuing Financial Planning as a major are well prepared for careers in financial planning in many different facets of the industry. Students can build a private practice, work with financial institutions, registered investment advisers, insurance companies, broker/dealers, or even non-profit entities. The program is registered with the Certified Financial Planner Board of Standards, Inc. (CFP Board) and is grounded with the core courses that will fulfill the educational requirements to take the CFP (Certified Financial Planner) exam.

### Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

### Admission Requirements

Students must complete 60 credits before admission to the program.

A GPA above 2.0 is preferred for the following:

- 2.60 already admitted to the degree-granting college
- 2.60 transferring from another University of Minnesota college
- 2.60 transferring from outside the University

Students will need to apply for admission into the major. Admissions will be based on interview and review of previous academic record.

A student cannot major in accounting, finance, and financial planning, because of overlap in major requirements.

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

#### Required prerequisites

##### Introductory Course (1 cr)

Not required for transfer students with 30 or more credits, or for students who change college into LSBE.

[UST 1000](#) - UMD Seminar (1.0 - 2.0 cr)

##### Pre-major Requirements (37 cr)

Electives: additional courses to bring total to 60 pre-candidacy credits. Non-LSBE statistics courses cannot be used to fulfill elective requirements.

[ACCT 2001](#) - Principles of Financial Accounting (3.0 cr)

[ACCT 2002](#) - Principles of Managerial Accounting (3.0 cr)

[BLAW 2001](#) - The Legal Environment [LE CAT8, HUMANITIES] (3.0 cr)

[ECON 1022](#) - Principles of Economics: Macro [LE CAT6, SOC SCI] (3.0 cr)

[ECON 1023](#) - Principles of Economics: Micro [LE CAT6, SOC SCI] (3.0 cr)

[ECON 2030](#) - Applied Statistics for Business and Economics [LOGIC & QR] (3.0 cr)

[FMIS 2201](#) - Information Technology in Business (3.0 cr)

[LSBE 2000](#) - Interpersonal and Teamwork Skills (1.0 cr)

[PSY 1003](#) - General Psychology [LE CAT6, SOC SCI] (4.0 cr)

[WRIT 1120](#) - College Writing [LE CAT1, WRITING] (3.0 cr)

[MATH 1160](#) - Finite Mathematics and Introduction to Calculus [LE CAT2, LOGIC & QR] (5.0 cr)

or [MATH 1290](#) - Calculus for the Natural Sciences [LE CAT2, LOGIC & QR] (5.0 cr)

or [MATH 1296](#) - Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)

or [MATH 1596](#) - Honors: Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)

**Communications or Foreign Languages**

[COMM 1112](#) - Public Speaking [LE CAT3, COMM & LAN] (3.0 cr)

or [COMM 1222](#) - Interpersonal Communication [LE CAT3, LECD CAT03, COMM & LAN] (3.0 cr)

or LSBE students are encouraged to take at least one year of college-level foreign language. (See LSBE Advising and Academic Services Office).

## General Requirements

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

## Program Requirements

**LSBE Core (18 cr)**

[FMIS 3601](#) - Corporate Finance (3.0 cr)

[MGTS 3301](#) - Production and Operations Management (3.0 cr)

[MGTS 3401](#) - Organizational Behavior and Management (3.0 cr)

[MGTS 3801](#) - Human Resource Management (3.0 cr)

[MGTS 4481](#) - Strategic Management (3.0 cr)

[MKTG 3701](#) - Principles of Marketing (3.0 cr)

**Advanced Writing and Professional Development Requirement (4 cr)**

[FMIS 3141](#) - Business Communications (3.0 cr)

or [WRIT 3121](#) - Advanced Writing: Business and Organizations (3.0 cr)

[LSBE 3000](#) - Career Development for the Business Professional (1.0 cr)

**Financial Planning Group A (18 cr)**

[ACCT 3401](#) - Individual Income Taxation (3.0 cr)

[ACCT 4600](#) - Employee Benefit and Retirement Planning (3.0 cr)

[BLAW 3301](#) - Estate Planning Concepts and Strategies (3.0 cr)

[FMIS 3644](#) - Investment Fundamentals (3.0 cr)

[FMIS 3655](#) - Risk Management and Insurance (3.0 cr)

[FMIS 4646](#) - Financial Plan Development (3.0 cr)

**Financial Planning Group B (3 cr)**

Take 3 or more credit(s) from the following:

• [ACCT 3402](#) - Advanced Business Taxation (3.0 cr)

• [MGTS 4461](#) - Business Ethics (3.0 cr)

• [MGTS 4472](#) - Entrepreneurship (3.0 cr)

• [MKTG 3721](#) - Social Media Marketing (3.0 cr)

• [MKTG 3741](#) - Fundamentals of Selling (3.0 cr)

• [MKTG 4731](#) - Consumer Behavior (3.0 cr)

**Supporting Courses (17 cr)**

In addition to economics and international requirements listed below, you may complete up to 3 credits of additional internship credits

and upper division (3xxx or above) non-LSBE courses for a total of 17 credits of supporting courses. NOTE: PSY 3020, STAT 3611 and SOC 3155 are equivalent to ECON 2030 and cannot be used to fulfill these requirements.

#### Economics Requirement

Take exactly 1 course(s) from the following:

- ECON 3xxx
- ECON 4xxx

#### International Requirement

Take exactly 1 course(s) from the following:

- ACCT 4505 - International Accounting (3.0 cr)
- AMIN 3410 - Fur Trade in Canada and the United States [CDIVERSITY] (3.0 cr)
- ANTH 3628 - Women in Cross-Cultural Perspective (3.0 cr)
- ANTH 3632 - Latin American Cultures (3.0 cr)
- ANTH 3638 - Peoples and Cultures of the Middle East (3.0 cr)
- ECON 3150 - Development Economics (3.0 cr)
- ECON 3402 - Global Economic Issues (3.0 cr)
- ECON 4410 - International Economics (3.0 cr)
- ENGL 3501 - British Literature I [HUMANITIES] (4.0 cr)
- ENGL 3502 - British Literature II [HUMANITIES] (4.0 cr)
- ENGL 5566 - Irish Literary Revival (4.0 cr)
- ENGL 5583 - British Novel (4.0 cr)
- FMIS 3649 - International Finance (3.0 cr)
- FR 4412 - Contemporary French Culture and Society [HUMANITIES, GLOBAL PER] (4.0 cr)
- FR 4422 - 20th-Century Novel [HUMANITIES] (4.0 cr)
- FST 4225 - INTB 4201, Chinese Business and Economics (3.0 cr)
- FST 4295 - INTB 4211 Innovation in Ireland (GLOBAL PER) [GLOBAL PER] (3.0 cr)
- GEOG 3461 - Geography of Global Resources [SUSTAIN] (3.0 cr)
- GER 4302 - German Women Writers and Filmmakers [HUMANITIES] (4.0 cr)
- GER 4305 - German Cinema [HUMANITIES] (4.0 cr)
- GER 4404 - Contemporary Germany [HUMANITIES, GLOBAL PER] (4.0 cr)
- HCM 4560 - International Comparisons of Health Care Systems (3.0 cr)
- HIST 3243 - Europe in Crisis in the 20th Century (4.0 cr)
- HIST 3244 - History of Holocaust (4.0 cr)
- HIST 3257 - Modern France (4.0 cr)
- HIST 3264 - Imperial Russia (4.0 cr)
- HIST 3386 - The United States and the World since 1898 (4.0 cr)
- HIST 3615 - Modern Africa (4.0 cr)
- HIST 3616 - Society and Culture in 20th-Century Africa (4.0 cr)
- HIST 3726 - Modern Middle East: 18th Century-Present (4.0 cr)
- HIST 3825 - Islamic History from Muhammad to the Ottomans (4.0 cr)
- MGTS 4474 - International Management (3.0 cr)
- MGTS 4483 - Cooperative Strategy and Strategic Alliances (3.0 cr)
- MGTS 4861 - International Human Resource Management (3.0 cr)
- MKTG 3781 - International Marketing (3.0 cr)
- POL 3451 - Theories of International Relations (4.0 cr)
- POL 3456 - International Security: War and More (4.0 cr)
- POL 3517 - Western European Political Systems (4.0 cr)
- POL 3570 - Politics of Developing Nations (3.0 cr)
- SOC 3945 - Social Stratification (3.0 cr)
- SPAN 3042 - Hispanic American Civilization and Culture [HUMANITIES, GLOBAL PER] (4.0 cr)
- SPAN 3044 - Civilization, Cultures and Communities of Spain [HUMANITIES, GLOBAL PER] (4.0 cr)
- SPAN 4011 - Hispanic American Prose [HUMANITIES] (4.0 cr)
- SPAN 4018 - Hispanic America From Within [HUMANITIES] (4.0 cr)
- SPAN 4027 - Contemporary Literature and Culture of Spain [HUMANITIES] (4.0 cr)
- WS 3000 - Transnational Perspectives on Feminism [SOC SCI, GLOBAL PER] (3.0 cr)
- WS 3001 - Gender Relations in the Global South [GLOBAL PER] (3.0 cr)
- WS 3002 - Latin American Women: Culture and Politics (3.0 cr)
- WS 3400 - Women and Film [GLOBAL PER] (3.0 cr)



### Duluth Campus

## Financial Planning Minor

Finance & Management Information Sciences

### Labovitz School of Business and Economics

- Program Type: Undergraduate free-standing minor
- Requirements for this program are current for Fall 2016
- Required credits in this minor: 24 to 36

The financial planning minor is designed to be a Certified Financial Planner (CFP) board-registered program so it can be used to fulfill the education requirements for the CFP certification. Upon completion of this program, students are eligible to sit for the CFP Board of Standard certification examination, leading to the professional CFP designation.

### Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

### Admission Requirements

A GPA above 2.0 is preferred for the following:

- 2.60 already admitted to the degree-granting college
- 2.60 transferring from another University of Minnesota college
- 2.60 transferring from outside the University

Admission to the minor is competitive and a planned admission process will be established to manage the cohort through the two-year time frame.

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

### Minor Requirements

The Financial Planning minor is available to both LSBE students and non-LSBE students. Requirements are described below.

### Program Sub-plans

Students are required to complete one of the following sub-plans.

#### Labovitz School of Business and Economics

##### Financial Planning (24 cr)

- ACCT 2001 - Principles of Financial Accounting (3.0 cr)
- ACCT 3401 - Individual Income Taxation (3.0 cr)
- ACCT 4600 - Employee Benefit and Retirement Planning (3.0 cr)
- BLAW 3301 - Estate Planning Concepts and Strategies (3.0 cr)
- FMIS 3601 - Corporate Finance (3.0 cr)
- FMIS 3644 - Investment Fundamentals (3.0 cr)
- FMIS 3655 - Risk Management and Insurance (3.0 cr)
- FMIS 4646 - Financial Plan Development (3.0 cr)

#### Non Labovitz School of Business and Economics

##### Pre-minor Requirements (15 cr)

- ACCT 2001 - Principles of Financial Accounting (3.0 cr)
- BLAW 2001 - The Legal Environment [LE CAT8, HUMANITIES] (3.0 cr)
- ECON 1022 - Principles of Economics: Macro [LE CAT6, SOC SCI] (3.0 cr)
- ECON 1023 - Principles of Economics: Micro [LE CAT6, SOC SCI] (3.0 cr)
- ECON 2030 - Applied Statistics for Business and Economics [LOGIC & QR] (3.0 cr)

An equivalent statistics course may be allowed in place of ECON 2030; students must consult with an adviser for prior approval.

##### Upper Division Prerequisite Requirement (3 cr)

- FMIS 3601 - Corporate Finance (3.0 cr)

##### Financial Planning Required Courses (18 cr)



- [ACCT 3401](#) - Individual Income Taxation (3.0 cr)
- [ACCT 4600](#) - Employee Benefit and Retirement Planning (3.0 cr)
- [BLAW 3301](#) - Estate Planning Concepts and Strategies (3.0 cr)
- [FMIS 3644](#) - Investment Fundamentals (3.0 cr)
- [FMIS 3655](#) - Risk Management and Insurance (3.0 cr)
- [FMIS 4646](#) - Financial Plan Development (3.0 cr)



### **Duluth Campus**

## **Health Care Management B.B.A.**

*Economics*

### **Labovitz School of Business and Economics**

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 120
- Required credits within the major: 98
- Degree: Bachelor of Business Administration

The health care management major focuses on the administration, financing, and economics of the health services sector. The program prepares students for careers in health care administration and policy in hospitals, clinics, government agencies, insurance and managed care organizations, pharmaceutical and biotechnology firms, medical device companies, and consulting agencies.

Students gain an understanding of the many critical issues in health care delivery, such as health care quality assessment and improvement, health information technology applications, health care ethics, compliance with health care regulations, physician contracting and reimbursement, and billing and claims processing. Students learn about health policy and health care reform, such as proposals for universal health insurance coverage and the structure of health care systems outside of the United States.

This professionally-oriented program also emphasizes the competencies required for management careers in business, government, public, or social service organizations. The program prepares students for entering careers with management responsibility by providing breadth and depth of knowledge about organizations, management fundamentals, techniques, processes, and skills, combined with a foundation in the functional areas of accounting, business law, finance, health care management, information systems, marketing, operations, and human resource management.

The B.B.A. offers a broad educational experience while preparing students for a variety of technical and management careers. With about one-half of the required coursework from non-business disciplines, emphasis is on the development of a strong liberal arts education that provides a foundation for the required and elective professional courses. The program's core curriculum focuses on the fundamental administrative and functional skills demanded of leaders in today's public and private organizations. Students are permitted sufficient latitude in choosing electives appropriate for their particular professional objectives in finance, health care management, human resource management, organizational management, management information systems, or marketing.

In addition to classroom-based courses, students may participate in internship programs where classroom learning may be applied during professional experience as an employee of a public agency or private business.

### **Program Delivery**

This program is available:

- via classroom (the majority of instruction is face-to-face)

### **Admission Requirements**

Freshman and transfer students are usually admitted to pre-major status before admission to this major

A GPA above 2.0 is preferred for the following:

- 2.60 already admitted to the degree-granting college
- 2.60 transferring from another University of Minnesota college
- 2.60 transferring from outside the University

Freshmen and transfer students are typically admitted as pre-business students for all B.B.A. majors. Admission to candidacy status, which allows access to upper division LSBE classes, typically occurs at the junior level when students have successfully completed all pre-major (pre-candidacy) course requirements and met all of the GPA standards. Students with a 2.60 UM and overall, 2.00 internal and pre-major, are admitted upon completion of pre-major courses; students with a 2.00-2.59 UM and overall, 2.00 internal and pre-major GPAs, are pooled and reviewed for evidence of academic success in LSBE majors.

Students who do not qualify for admission to candidacy may not take upper division LSBE courses (excluding some economics courses) without permission of the director of Student Affairs.

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

### **Required prerequisites**

#### **Introductory course (1 cr)**

Not required for transfer students with 30 or more credits, or for students who change college to LSBE.  
[UST 1000](#) - UMD Seminar (1.0 - 2.0 cr)

#### Pre-major requirements (37 cr)

[ACCT 2001](#) - Principles of Financial Accounting (3.0 cr)  
[ACCT 2002](#) - Principles of Managerial Accounting (3.0 cr)  
[BLAW 2001](#) - The Legal Environment [LE CAT8, HUMANITIES] (3.0 cr)  
[ECON 1022](#) - Principles of Economics: Macro [LE CAT6, SOC SCI] (3.0 cr)  
[ECON 1023](#) - Principles of Economics: Micro [LE CAT6, SOC SCI] (3.0 cr)  
[ECON 2030](#) - Applied Statistics for Business and Economics [LOGIC & QR] (3.0 cr)  
[FMIS 2201](#) - Information Technology in Business (3.0 cr)  
[PSY 1003](#) - General Psychology [LE CAT6, SOC SCI] (4.0 cr)  
[WRIT 1120](#) - College Writing [LE CAT1, WRITING] (3.0 cr)  
[LSBE 2000](#) - Interpersonal and Teamwork Skills (1.0 cr)  
[MATH 1160](#) - Finite Mathematics and Introduction to Calculus [LE CAT2, LOGIC & QR] (5.0 cr)  
or [MATH 1290](#) - Calculus for the Natural Sciences [LE CAT2, LOGIC & QR] (5.0 cr)  
or [MATH 1296](#) - Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)  
or [MATH 1596](#) - Honors: Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)

#### Communications or Foreign Languages

[COMM 1112](#) - Public Speaking [LE CAT3, COMM & LAN] (3.0 cr)  
or [COMM 1222](#) - Interpersonal Communication [LE CAT3, LECD CAT03, COMM & LAN] (3.0 cr)  
or LSBE students are encouraged to take at least one year of college-level foreign language. (See LSBE Advising and Academic Services Office)

## General Requirements

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

## Program Requirements

1. LSBE students are encouraged to take at least one year of college-level foreign language.
2. 50% of all required business credits, including the upper-division economics elective, must be taken from LSBE faculty.
3. Students must complete a minimum of 30 credits while enrolled in LSBE.
4. No more than 9 credits (3 courses) pertaining to a specific major may be taken abroad, unless an exception is approved by petition.

#### LSBE Core (18 cr)

[MGTS 3301](#) - Production and Operations Management (3.0 cr)  
[FMIS 3601](#) - Corporate Finance (3.0 cr)  
[MGTS 3401](#) - Organizational Behavior and Management (3.0 cr)  
[MGTS 3801](#) - Human Resource Management (3.0 cr)  
[MGTS 4481](#) - Strategic Management (3.0 cr)

MKTG 3701 - Principles of Marketing (3.0 cr)

**Health Care Management Group A (12 cr)**

- HCM 4520 - Health Care Organization and Management (3.0 cr)
- HCM 4530 - Legal Aspects of and Ethics in Health Care (3.0 cr)
- HCM 4570 - Health Care Quality Management (3.0 cr)
- HCM 4597 - Internship (1.0 - 6.0 cr)

**Health Care Management Group B (9 cr)**

An LSBE or non-LSBE 3xxx-4xxx course may be taken with prior approval. Students may take either FST 4225 OR FST 4295, but not both, for credit within this requirement. Only one INTB course may be used.

Take 9 or more credit(s) from the following:

- FMIS 4220 - Medical Informatics (3.0 cr)
- FST 4225 - INTB 4201, Chinese Business and Economics (3.0 cr)
- FST 4295 - INTB 4211 Innovation in Ireland (GLOBAL PER) [GLOBAL PER] (3.0 cr)
- HCM 4510 - Medical Sociology (3.0 cr)
- HCM 4550 - Health Care Finance (3.0 cr)
- HCM 4560 - International Comparisons of Health Care Systems (3.0 cr)
- HCM 4580 - Health Services Research Methods (3.0 cr)
- HCM 4591 - Independent Study (1.0 - 3.0 cr)
- HCM 4595 - Special Topics: (Various Titles to be Assigned) (1.0 - 3.0 cr)
- INTB 4221 - Health Care and Families in Thailand (3.0 cr)

**Supporting Courses (17 cr)**

In addition to economics and international requirements listed below, you may complete up to 3 credits of additional internship credits and upper division (3xxx or above) non-LSBE courses, for a total of 17 credits of supporting courses. NOTE: PSY 3020, STAT 3611 and SOC 3155 are equivalent to ECON 2030 and cannot be used to fulfill these requirements.

**Economics Requirement**

Take exactly 1 course(s) from the following:

- ECON 3xxx
- ECON 4xxx

**International Requirement**

Take exactly 1 course(s) from the following:

- ACCT 4505 - International Accounting (3.0 cr)
- AMIN 3410 - Fur Trade in Canada and the United States [CDIVERSITY] (3.0 cr)
- ANTH 3628 - Women in Cross-Cultural Perspective (3.0 cr)
- ANTH 3632 - Latin American Cultures (3.0 cr)
- ANTH 3638 - Peoples and Cultures of the Middle East (3.0 cr)
- ECON 3150 - Development Economics (3.0 cr)
- ECON 3402 - Global Economic Issues (3.0 cr)
- ECON 4410 - International Economics (3.0 cr)
- ENGL 3501 - British Literature I [HUMANITIES] (4.0 cr)
- ENGL 3502 - British Literature II [HUMANITIES] (4.0 cr)
- ENGL 5566 - Irish Literary Revival (4.0 cr)
- ENGL 5583 - British Novel (4.0 cr)
- FMIS 3649 - International Finance (3.0 cr)
- FR 4412 - Contemporary French Culture and Society [HUMANITIES, GLOBAL PER] (4.0 cr)
- FR 4422 - 20th-Century Novel [HUMANITIES] (4.0 cr)
- FST 4225 - INTB 4201, Chinese Business and Economics (3.0 cr)
- FST 4295 - INTB 4211 Innovation in Ireland (GLOBAL PER) [GLOBAL PER] (3.0 cr)
- GEOG 3461 - Geography of Global Resources [SUSTAIN] (3.0 cr)
- GER 4302 - German Women Writers and Filmmakers [HUMANITIES] (4.0 cr)
- GER 4305 - German Cinema [HUMANITIES] (4.0 cr)
- GER 4404 - Contemporary Germany [HUMANITIES, GLOBAL PER] (4.0 cr)
- HCM 4560 - International Comparisons of Health Care Systems (3.0 cr)
- HIST 3243 - Europe in Crisis in the 20th Century (4.0 cr)
- HIST 3244 - History of Holocaust (4.0 cr)
- HIST 3257 - Modern France (4.0 cr)
- HIST 3264 - Imperial Russia (4.0 cr)
- HIST 3386 - The United States and the World since 1898 (4.0 cr)
- HIST 3615 - Modern Africa (4.0 cr)
- HIST 3616 - Society and Culture in 20th-Century Africa (4.0 cr)
- HIST 3726 - Modern Middle East: 18th Century-Present (4.0 cr)
- HIST 3825 - Islamic History from Muhammad to the Ottomans (4.0 cr)
- MGTS 4474 - International Management (3.0 cr)



- MGTS 4483 - Cooperative Strategy and Strategic Alliances (3.0 cr)
- MGTS 4861 - International Human Resource Management (3.0 cr)
- MKTG 3781 - International Marketing (3.0 cr)
- POL 3451 - Theories of International Relations (4.0 cr)
- POL 3456 - International Security: War and More (4.0 cr)
- POL 3517 - Western European Political Systems (4.0 cr)
- POL 3570 - Politics of Developing Nations (3.0 cr)
- SOC 3945 - Social Stratification (3.0 cr)
- SPAN 3042 - Hispanic American Civilization and Culture [HUMANITIES, GLOBAL PER] (4.0 cr)
- SPAN 3044 - Civilization, Cultures and Communities of Spain [HUMANITIES, GLOBAL PER] (4.0 cr)
- SPAN 4011 - Hispanic American Prose [HUMANITIES] (4.0 cr)
- SPAN 4018 - Hispanic America From Within [HUMANITIES] (4.0 cr)
- SPAN 4027 - Contemporary Literature and Culture of Spain [HUMANITIES] (4.0 cr)
- WS 3000 - Transnational Perspectives on Feminism [SOC SCI, GLOBAL PER] (3.0 cr)
- WS 3001 - Gender Relations in the Global South [GLOBAL PER] (3.0 cr)
- WS 3002 - Latin American Women: Culture and Politics (3.0 cr)
- WS 3400 - Women and Film [GLOBAL PER] (3.0 cr)

**Advanced Writing and Professional Development Requirement (4 cr)**

- FMIS 3141 - Business Communications (3.0 cr)  
or WRIT 3121 - Advanced Writing: Business and Organizations (3.0 cr)
- LSBE 3000 - Career Development for the Business Professional (1.0 cr)



### Duluth Campus

## Health Care Management Minor

Labovitz School of Business & Economics - Adm

### Labovitz School of Business and Economics

- Program Type: Undergraduate minor related to major
- Requirements for this program are current for Fall 2016
- Required credits in this minor: 15 to 30

The health care management minor teaches students about the health care system and how to apply management, economic, and legal methods to solve health care service problems. A minor in health care management complements the existing business majors, particularly for students who would like to apply their skills and knowledge in the health care sector.

### Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

### Admission Requirements

A GPA above 2.0 is preferred for the following:

- 2.60 already admitted to the degree-granting college
- 2.60 transferring from another University of Minnesota college
- 2.60 transferring from outside the University

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

### Minor Requirements

This minor is available to Labovitz School of Business and Economics and non-LSBE students. Requirements for admission to the minor are the same for admission to candidacy.

### Program Sub-plans

Students are required to complete one of the following sub-plans.

#### Health Care Management Minor for BBA/BAcc Students

##### Requirements (15 cr)

- [ECON 3910](#) - Economics of Health Care (3.0 cr)
- [HCM 4520](#) - Health Care Organization and Management (3.0 cr)
- [HCM 4530](#) - Legal Aspects of and Ethics in Health Care (3.0 cr)
- [HCM 4570](#) - Health Care Quality Management (3.0 cr)

Take 3 or more credit(s) from the following:

- [FMIS 4220](#) - Medical Informatics (3.0 cr)
- [HCM 4510](#) - Medical Sociology (3.0 cr)
- [HCM 4550](#) - Health Care Finance (3.0 cr)
- [HCM 4560](#) - International Comparisons of Health Care Systems (3.0 cr)
- [HCM 4595](#) - Special Topics: (Various Titles to be Assigned) (1.0 - 3.0 cr)
- [HCM 4597](#) - Internship (1.0 - 6.0 cr)
- [INTB 4221](#) - Health Care and Families in Thailand (3.0 cr)

#### Health Care Management Minor for Non-LSBE Students

##### Non-LSBE Students Pre-Minor Core (15 - 18 cr)

Students are encouraged to complete ECON 1022 and 1023 as pre-minor core prerequisites.

- [ACCT 2001](#) - Principles of Financial Accounting (3.0 cr)
- [ECON 2030](#) - Applied Statistics for Business and Economics [LOGIC & QR] (3.0 cr)
- [FMIS 2201](#) - Information Technology in Business (3.0 cr)
- [MGTS 1101](#) - Introduction to Business [LE CAT8] (3.0 cr)
- [ECON 1003](#) - Economics and Society [LE CAT8, SOC SCI] (3.0 cr)
- or [ECON 1022](#) - Principles of Economics: Macro [LE CAT6, SOC SCI] (3.0 cr)



[ECON 1023](#) - Principles of Economics: Micro [LE CAT6, SOC SCI] (3.0 cr)

**Requirements (12 cr)**

[ECON 3910](#) - Economics of Health Care (3.0 cr)

[HCM 4520](#) - Health Care Organization and Management (3.0 cr)

[HCM 4530](#) - Legal Aspects of and Ethics in Health Care (3.0 cr)

[HCM 4570](#) - Health Care Quality Management (3.0 cr)



## Duluth Campus

# International Business Minor

Management Studies

## Labovitz School of Business and Economics

- Program Type: Undergraduate free-standing minor
- Requirements for this program are current for Fall 2016
- Required credits in this minor: 12

The international business minor is an interdisciplinary business minor that enhances students knowledge of global issues within organizations and the business environment. The minor will provide students with an increased awareness of challenges and opportunities associated with the globalization of the marketplace and the workplace.

## Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

## Admission Requirements

Students must complete 45 credits before admission to the program.

A GPA above 2.0 is preferred for the following:

- 2.60 already admitted to the degree-granting college
- 2.60 transferring from another University of Minnesota college
- 2.60 transferring from outside the University

This minor is for only for LSBE majors who must meet all pre-major BBA or BAac requirements before applying for candidacy for these degree programs, and the form to declare an international business minor may be submitted with the application for candidacy or any time after formal admission to an LSBE degree program

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

## Minor Requirements

### Group A (9 cr)

Take 3 or more course(s) totaling 9 or more credit(s) from the following:

- **ACCT 4505** - International Accounting (3.0 cr)
- **FMIS 3649** - International Finance (3.0 cr)
- **MGTS 4474** - International Management (3.0 cr)
- **MGTS 4861** - International Human Resource Management (3.0 cr)
- **MKTG 3781** - International Marketing (3.0 cr)

### Group B (3 cr)

Take 1 or more course(s) totaling 3 or more credit(s) from the following:

- **ECON 3150** - Development Economics (3.0 cr)
- **ECON 3402** - Global Economic Issues (3.0 cr)
- **ECON 4410** - International Economics (3.0 cr)
- **HCM 4560** - International Comparisons of Health Care Systems (3.0 cr)
- INTB 3xxx
- INTB 4xxx

### **Duluth Campus**

## **Management B.B.A.**

*Management Studies*

### **Labovitz School of Business and Economics**

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 120
- Required credits within the major: 98
- Degree: Bachelor of Business Administration

This professionally-oriented program emphasizes the competencies required for management careers in business, government, public, or social service organizations. The program prepares students for entering careers with management responsibility by providing a breadth and depth of knowledge about organizations, management fundamentals, techniques, processes, and skills, combined with a foundation in the functional areas of accounting, business law, finance, information systems, marketing, operations, and human resource management.

The B.B.A. offers a broad educational experience while preparing students for a variety of technical and management careers. With about one-half of the required coursework from nonbusiness disciplines, emphasis is on the development of a strong liberal arts education that provides a foundation for the required and elective professional courses. The program's core curriculum focuses on the fundamental administrative and functional skills demanded of leaders in today's public and private organizations. Students are permitted sufficient latitude in choosing electives appropriate to their particular professional objectives in finance, human resource management, organizational management, management information systems, or marketing.

In addition to classroom-based courses, students may participate in internship programs where classroom learning may be applied during professional experience as an employee of a public agency or private business. The internship program provides practical tests of vocational interests and valuable work experience.

Honors Program: Degree candidates must earn a 3.30 GPA in all LSBE upper division courses.

### **Program Delivery**

This program is available:

- via classroom (the majority of instruction is face-to-face)

### **Admission Requirements**

Freshman and transfer students are usually admitted to pre-major status before admission to this major

A GPA above 2.0 is preferred for the following:

- 2.60 already admitted to the degree-granting college
- 2.60 transferring from another University of Minnesota college
- 2.60 transferring from outside the University

Freshmen and transfer students are typically admitted as pre-business students for all B.B.A. majors. Admission to candidacy status, which allows access to upper division LSBE classes, typically occurs at the junior level when students have successfully completed all pre-major (pre-candidacy) course requirements, and met all of the GPA standards. Students with a 2.60 UM and overall, 2.00 internal and pre-major, are admitted upon completion of pre-major courses; students with a 2.00-2.59 UM and overall, 2.00 internal and pre-major GPAs, are pooled and reviewed for evidence of academic success in LSBE majors.

Students who do not qualify for admission to candidacy may not take upper division LSBE courses (excluding some economics courses) without permission of the director of Student Affairs.

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

#### **Required prerequisites**

##### **Introductory course (1 cr)**

Not required for transfer students with 30 or more credits, or for students who change college to LSBE.

[UST 1000](#) - UMD Seminar (1.0 - 2.0 cr)

##### **Pre-major requirements (37 cr)**

Additional non-LSBE courses to bring total to 60 pre-candidacy credits.

Non-LSBE statistics courses cannot be used to fulfill elective requirements.



- ACCT 2001 - Principles of Financial Accounting (3.0 cr)
- ACCT 2002 - Principles of Managerial Accounting (3.0 cr)
- BLAW 2001 - The Legal Environment [LE CAT8, HUMANITIES] (3.0 cr)
- ECON 1022 - Principles of Economics: Macro [LE CAT6, SOC SCI] (3.0 cr)
- ECON 1023 - Principles of Economics: Micro [LE CAT6, SOC SCI] (3.0 cr)
- ECON 2030 - Applied Statistics for Business and Economics [LOGIC & QR] (3.0 cr)
- FMIS 2201 - Information Technology in Business (3.0 cr)
- LSBE 2000 - Interpersonal and Teamwork Skills (1.0 cr)
- PSY 1003 - General Psychology [LE CAT6, SOC SCI] (4.0 cr)
- WRIT 1120 - College Writing [LE CAT1, WRITING] (3.0 cr)
- MATH 1160 - Finite Mathematics and Introduction to Calculus [LE CAT2, LOGIC & QR] (5.0 cr)  
or MATH 1290 - Calculus for the Natural Sciences [LE CAT2, LOGIC & QR] (5.0 cr)  
or MATH 1296 - Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)  
or MATH 1596 - Honors: Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)
- Communications or Foreign Languages**
  - COMM 1112 - Public Speaking [LE CAT3, COMM & LAN] (3.0 cr)
  - or COMM 1222 - Interpersonal Communication [LE CAT3, LECD CAT03, COMM & LAN] (3.0 cr)
  - or Foreign Language Courses-LSBE students are encouraged to take at least one year of college-level foreign language. (See LSBE Advising and Academic Services Office)

## General Requirements

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

## Program Requirements

1. LSBE students are encouraged to take at least one year of college-level foreign language.
2. 50% of all required business credits, including the upper-division economics elective, must be taken from LSBE faculty.
3. Students must complete a minimum of 30 credits while enrolled in LSBE.
4. No more than 9 credits (3 courses) pertaining to a specific major may be taken abroad, unless an exception is approved by petition.

### LSBE Core (18 cr)

- MGTS 3301 - Production and Operations Management (3.0 cr)
- FMIS 3601 - Corporate Finance (3.0 cr)
- MGTS 3401 - Organizational Behavior and Management (3.0 cr)
- MKTG 3701 - Principles of Marketing (3.0 cr)
- MGTS 3801 - Human Resource Management (3.0 cr)
- MGTS 4481 - Strategic Management (3.0 cr)

### Supporting Courses (17 cr)

In addition to economics and international requirements listed below, you may complete up to 3 credits of additional internship credits and upper division (3xxx or above) non-LSBE courses, for a total of 17 credits of supporting courses. NOTE: PSY 3020, STAT 3611

and SOC 3155 are equivalent to ECON 2030, and cannot be used to fulfill these requirements.

**Economics Requirement**

Take exactly 1 course(s) from the following:

- ECON 3xxx
- ECON 4xxx

**International Requirement**

Take exactly 1 course(s) from the following:

- ACCT 4505 - International Accounting (3.0 cr)
- AMIN 3410 - Fur Trade in Canada and the United States [CDIVERSITY] (3.0 cr)
- ANTH 3628 - Women in Cross-Cultural Perspective (3.0 cr)
- ANTH 3632 - Latin American Cultures (3.0 cr)
- ANTH 3638 - Peoples and Cultures of the Middle East (3.0 cr)
- ECON 3150 - Development Economics (3.0 cr)
- ECON 3402 - Global Economic Issues (3.0 cr)
- ECON 4410 - International Economics (3.0 cr)
- ENGL 3501 - British Literature I [HUMANITIES] (4.0 cr)
- ENGL 3502 - British Literature II [HUMANITIES] (4.0 cr)
- ENGL 5566 - Irish Literary Revival (4.0 cr)
- ENGL 5583 - British Novel (4.0 cr)
- FMIS 3649 - International Finance (3.0 cr)
- FR 4412 - Contemporary French Culture and Society [HUMANITIES, GLOBAL PER] (4.0 cr)
- FR 4422 - 20th-Century Novel [HUMANITIES] (4.0 cr)
- FST 4225 - INTB 4201, Chinese Business and Economics (3.0 cr)
- FST 4295 - INTB 4211 Innovation in Ireland (GLOBAL PER) [GLOBAL PER] (3.0 cr)
- GEOG 3461 - Geography of Global Resources [SUSTAIN] (3.0 cr)
- GER 4302 - German Women Writers and Filmmakers [HUMANITIES] (4.0 cr)
- GER 4305 - German Cinema [HUMANITIES] (4.0 cr)
- GER 4404 - Contemporary Germany [HUMANITIES, GLOBAL PER] (4.0 cr)
- HCM 4560 - International Comparisons of Health Care Systems (3.0 cr)
- HIST 3243 - Europe in Crisis in the 20th Century (4.0 cr)
- HIST 3244 - History of Holocaust (4.0 cr)
- HIST 3257 - Modern France (4.0 cr)
- HIST 3264 - Imperial Russia (4.0 cr)
- HIST 3386 - The United States and the World since 1898 (4.0 cr)
- HIST 3615 - Modern Africa (4.0 cr)
- HIST 3616 - Society and Culture in 20th-Century Africa (4.0 cr)
- HIST 3726 - Modern Middle East: 18th Century-Present (4.0 cr)
- HIST 3825 - Islamic History from Muhammad to the Ottomans (4.0 cr)
- MGTS 4474 - International Management (3.0 cr)
- MGTS 4483 - Cooperative Strategy and Strategic Alliances (3.0 cr)
- MGTS 4861 - International Human Resource Management (3.0 cr)
- MKTG 3781 - International Marketing (3.0 cr)
- POL 3451 - Theories of International Relations (4.0 cr)
- POL 3456 - International Security: War and More (4.0 cr)
- POL 3517 - Western European Political Systems (4.0 cr)
- POL 3570 - Politics of Developing Nations (3.0 cr)
- SOC 3945 - Social Stratification (3.0 cr)
- SPAN 3042 - Hispanic American Civilization and Culture [HUMANITIES, GLOBAL PER] (4.0 cr)
- SPAN 3044 - Civilization, Cultures and Communities of Spain [HUMANITIES, GLOBAL PER] (4.0 cr)
- SPAN 4011 - Hispanic American Prose [HUMANITIES] (4.0 cr)
- SPAN 4018 - Hispanic America From Within [HUMANITIES] (4.0 cr)
- SPAN 4027 - Contemporary Literature and Culture of Spain [HUMANITIES] (4.0 cr)
- WS 3000 - Transnational Perspectives on Feminism [SOC SCI, GLOBAL PER] (3.0 cr)
- WS 3001 - Gender Relations in the Global South [GLOBAL PER] (3.0 cr)
- WS 3002 - Latin American Women: Culture and Politics (3.0 cr)
- WS 3400 - Women and Film [GLOBAL PER] (3.0 cr)

**Advanced Writing and Professional Development Requirement (4 cr)**

- FMIS 3141 - Business Communications (3.0 cr)
- or WRIT 3121 - Advanced Writing: Business and Organizations (3.0 cr)
- LSBE 3000 - Career Development for the Business Professional (1.0 cr)

## Program Sub-plans

Students are required to complete one of the following sub-plans.

### Human Resource Management

The work of the human resource management (HRM) professional encompasses a broad range of activities affecting the relationship between an organization and its employees--its human resources. HRM involves strategic functions, such as organizational planning and human resource policy making, and diverse activities that involve designing and implementing policies, and selecting, developing, evaluating, and rewarding a workforce. Typical HRM activities include equal employment opportunity, the study and design of jobs, employee benefit programs, union-management relations, counseling, and the development of work systems that are consistent with the prevailing organizational philosophy.

### Group A Electives (15 cr)

Take 5 or more course(s) totaling 15 or more credit(s) from the following:

- MGTS 4475 - Negotiations, Bargaining and Conflict Resolution (3.0 cr)
- MGTS 4821 - Staffing Work Organizations (3.0 cr)
- MGTS 4831 - Compensation Systems (3.0 cr)
- MGTS 4841 - Training and Development (3.0 cr)
- MGTS 4851 - Labor Relations (3.0 cr)
- MGTS 4861 - International Human Resource Management (3.0 cr)
- MGTS 4871 - Strategic Human Resource Management (3.0 cr)
- MGTS 4881 - Human Resource Issues and Trends (3.0 cr)
- MGTS 4895 - Special Topics: (Various Titles to be Assigned) (1.0 - 3.0 cr)

### Group B Electives (total of 2 courses required from 2 different categories) (6 cr)

1. Additional course from Group A.
2. ECON 3821 or selected human resource-oriented course from other discipline (department head consent required).
3. Upper division organizational management or entrepreneurship course (MGTS 44xx or MGTS 49xx) or HCM 4520 - Health Care Organization and Management; FST 4225 or 4295 may also be used.
4. Internship/Field Studies

MGTS 3897 - Human Resources Internship (1.0 - 6.0 cr)

or MGTS 3997 - Management of Community Projects (1.0 - 3.0 cr)

### Organizational Management

Managers facilitate the work of others to accomplish goals that might not be achieved by a single individual and need to know about the environment surrounding the organization, the roles that managers can take, and the techniques that effectively guide employees. The curriculum allows students to become familiar with different types of organizations and their members. Among the many topics covered are organizational environments, groups and teams at work, leadership, and employee empowerment. Students are given the opportunities to learn more about organizations' complex systems.

MGTS 3401 - Organizational Behavior and Management, a part of the LSBE core, is a prerequisite for all of the courses that appear in the track. Organizational management track students are encouraged to take MGTS 3401 as soon as they are eligible for the course.

### Organizational Management Group A (18 cr)

Students must take at least one macro, one micro, and at least two management and management process courses.

MGTS 4495 - Special Topics in Management, may fulfill one of the following areas: macro-organization, or management and management process (by petition only).

Take 6 or more course(s) totaling 18 or more credit(s) from the following:

#### Macro-Organization Behavior Courses

Focus on the organization (context, structure, processes, and behavior) and organizing.

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

- MGTS 4411 - Organizational Studies (3.0 cr)
- MGTS 4483 - Cooperative Strategy and Strategic Alliances (3.0 cr)
- MGTS 4421 - Managing Change (3.0 cr)

#### Micro-Organization Behavior Courses

Study of individuals and groups within an organizational context, internal processes, practices.

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

- MGTS 4431 - Leadership Studies (3.0 cr)
- MGTS 4441 - Developing Managerial Skills (3.0 cr)
- MGTS 4443 - Teams in Organizations (3.0 cr)
- MGTS 4451 - Management Inquiry (3.0 cr)

#### Management and Management Process

The practice of management within the work, organization, and larger organizational context.

Take 2 or more course(s) from the following:

- MGTS 4461 - Business Ethics (3.0 cr)
- MGTS 4463 - Sustainability and Sustainable Management (3.0 cr)



- MGTS 4472 - Entrepreneurship (3.0 cr)
- MGTS 4473 - Management of Innovation and Technology (3.0 cr)
- MGTS 4474 - International Management (3.0 cr)
- MGTS 4475 - Negotiations, Bargaining and Conflict Resolution (3.0 cr)

**Organizational Management Group B (3 cr)**

Select one course from the following options for a total of 3 credits:

1. Select any other Group A course.
2. Any upper division LSBE elective in accounting, business law, finance, human resources, marketing, management information sciences, or health care management; FST 4225 or 4295 may also be used. Internships from these disciplines (ACCT 3196, FMIS 3397, MGTS 3897 and HCM 4597) cannot be used to fulfill this requirement.
3. Management Internship (MGTS 3497)

## Duluth Campus

# Management Information Systems B.B.A.

Finance & Management Information Sciences

## Labovitz School of Business and Economics

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 120
- Required credits within the major: 98
- Degree: Bachelor of Business Administration

The Management Information Systems (MIS) program prepares students for entry into careers in business computing. The major gives students both in-depth technical skills needed to design, implement, support, and manage information systems, as well as the breadth of knowledge in all business-functional areas needed to produce and manage integrative, technology-based solutions to business and organizational problems.

This professionally-oriented program emphasizes the competencies required for management careers in business, government, public, or social service organizations. The program prepares students for entering careers with management responsibility by providing a breadth and depth of knowledge about organizations, management fundamentals, techniques, processes, and skills, combined with a foundation in the functional areas of accounting, business law, finance, information systems, marketing, operations, and human resource management.

The B.B.A. offers a broad educational experience, while preparing students for a variety of technical and management careers. With about one-half of the required coursework from non-business disciplines, emphasis is on the development of a strong liberal arts education that provides a foundation for the required and elective professional courses. The program's core curriculum focuses on the fundamental administrative and functional skills demanded of leaders in today's public and private organizations. Students are permitted sufficient latitude in choosing electives appropriate to their particular professional objectives in finance, human resource management, organizational management, management information systems, or marketing.

In addition to classroom-based courses, students may participate in internship programs where classroom learning may be applied during professional experience as an employee of a public agency or private business. Students also may participate in the Student to Business Initiative (SBI), which offers the opportunity to use knowledge and skills to identify, analyze, and solve problems confronting small businesses. Both programs provide practical tests of vocational interests and valuable work experience.

## Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

## Admission Requirements

Freshman and transfer students are usually admitted to pre-major status before admission to this major

A GPA above 2.0 is preferred for the following:

- 2.60 already admitted to the degree-granting college
- 2.60 transferring from another University of Minnesota college
- 2.60 transferring from outside the University

Freshmen and transfer students are typically admitted as pre-business students for all B.B.A. majors. Admission to candidacy status typically occurs at the junior level when students have successfully completed all pre-major course requirements and met GPA standards. Students with 2.60 UM and overall, and 2.00 internal and pre-major GPAs, are admitted upon completion of pre-major courses; students with 2.00-2.59 UM and overall, and 2.00 internal and pre-major GPAs, are pooled and reviewed for evidence of academic success in LSBE majors.

Students who do not qualify for admission to candidacy may not take upper division LSBE courses (excluding some economics courses) without permission of the director of Student Affairs.

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

### Required prerequisites

#### Introductory course (1 cr)

Not required for transfer students with 30 or more credits, or for students who change college into LSBE.

[UST 1000](#) - UMD Seminar (1.0 - 2.0 cr)

### Pre-major requirements (37 cr)

- ACCT 2001 - Principles of Financial Accounting (3.0 cr)
- ACCT 2002 - Principles of Managerial Accounting (3.0 cr)
- BLAW 2001 - The Legal Environment [LE CAT8, HUMANITIES] (3.0 cr)
- ECON 1022 - Principles of Economics: Macro [LE CAT6, SOC SCI] (3.0 cr)
- ECON 1023 - Principles of Economics: Micro [LE CAT6, SOC SCI] (3.0 cr)
- ECON 2030 - Applied Statistics for Business and Economics [LOGIC & QR] (3.0 cr)
- FMIS 2201 - Information Technology in Business (3.0 cr)
- LSBE 2000 - Interpersonal and Teamwork Skills (1.0 cr)
- PSY 1003 - General Psychology [LE CAT6, SOC SCI] (4.0 cr)
- WRIT 1120 - College Writing [LE CAT1, WRITING] (3.0 cr)
- MATH 1160 - Finite Mathematics and Introduction to Calculus [LE CAT2, LOGIC & QR] (5.0 cr)  
or MATH 1290 - Calculus for the Natural Sciences [LE CAT2, LOGIC & QR] (5.0 cr)  
or MATH 1296 - Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)  
or MATH 1596 - Honors: Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)

### Communications or Foreign Languages

Students should see Student Affairs staff for approved foreign languages courses.

- COMM 1112 - Public Speaking [LE CAT3, COMM & LAN] (3.0 cr)
- or COMM 1222 - Interpersonal Communication [LE CAT3, LECD CAT03, COMM & LAN] (3.0 cr)
- or LSBE students are encouraged to take at least one year of a college-level foreign language. (See LSBE Advising and Academic Services Office.)

## General Requirements

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

## Program Requirements

1. LSBE students are encouraged to take at least one year of college-level foreign language.
2. Strict limitations on use of correspondence courses. See LSBE Student Affairs.
3. At least 50 percent of the required accounting, business, and upper division economics credits must be taken at UMD.

### LSBE Core (18 cr)

- MGTS 3301 - Production and Operations Management (3.0 cr)
- FMIS 3601 - Corporate Finance (3.0 cr)
- MGTS 3401 - Organizational Behavior and Management (3.0 cr)
- MKTG 3701 - Principles of Marketing (3.0 cr)
- MGTS 3801 - Human Resource Management (3.0 cr)
- MGTS 4481 - Strategic Management (3.0 cr)



### Management Info Systems Group A (12 cr)

- FMIS 3220 - Database Management and Design (3.0 cr)
- FMIS 3222 - Systems Analysis and Design (3.0 cr)
- FMIS 3232 - Computer Programming for Business (3.0 cr)
- FMIS 4225 - Advanced Applications Development (3.0 cr)

### Management Info Systems Group B (6 cr)

Take exactly 6 credit(s) from the following:

- FMIS 3224 - Data Communications and Computer Networks (3.0 cr)
- FMIS 3295 - Special Topics: (Various Titles to be Assigned) (1.0 - 4.0 cr)
- FMIS 3697 - Finance Internship (1.0 - 6.0 cr)
- FMIS 4220 - Medical Informatics (3.0 cr)
- FMIS 4221 - XML and Information Management (3.0 cr)

### Management Information Systems Group C (3 cr)

- ACCT 3301 - Accounting Information Systems (3.0 cr)
  - or COMM 3211 - Communication and Technology in the Information Age (3.0 cr)
  - or COMM 3560 - Video Game Entertainment (3.0 cr)
  - or CS 3011 - Information Technology Hardware and Software (4.0 cr)
  - or FST 4225 - INTB 4201, Chinese Business and Economics (3.0 cr)
  - or FST 4295 - INTB 4211 Innovation in Ireland (GLOBAL PER) [GLOBAL PER] (3.0 cr)
  - or JOUR 3700 - Media Law and Ethics (3.0 cr)
  - or MGTS 4472 - Entrepreneurship (3.0 cr)
  - or MGTS 4473 - Management of Innovation and Technology (3.0 cr)
  - or WRIT 4220 - Document Design and Graphics (3.0 cr)
  - or WRIT 4230 - Web Design and Digital Culture (3.0 cr)
  - or WRIT 4250 - New Media Writing (3.0 cr)
  - or WRIT 4260 - Visual Rhetoric and Culture (3.0 cr)
- or Additional course from Group B
- or Selected upper division technology orientated course from other disciplines with MIS faculty consent.

### Supporting Courses (17 cr)

In addition to economics and international requirements listed below, you may complete up to 3 credits of additional internship credits and upper division (3xxx or above) non-LSBE courses, for a total of 17 credits of supporting courses. NOTE: PSY 3020, STAT 3611 and SOC 3155 are equivalent to ECON 2030, and cannot be used to fulfill these requirements.

#### Economics Requirement

Take exactly 1 course(s) from the following:

- ECON 3xxx
- ECON 4xxx

#### International Requirement

Take exactly 1 course(s) from the following:

- ACCT 4505 - International Accounting (3.0 cr)
- AMIN 3410 - Fur Trade in Canada and the United States [CDIVERSITY] (3.0 cr)
- ANTH 3628 - Women in Cross-Cultural Perspective (3.0 cr)
- ANTH 3632 - Latin American Cultures (3.0 cr)
- ANTH 3638 - Peoples and Cultures of the Middle East (3.0 cr)
- ECON 3150 - Development Economics (3.0 cr)
- ECON 3402 - Global Economic Issues (3.0 cr)
- ECON 4410 - International Economics (3.0 cr)
- ENGL 3501 - British Literature I [HUMANITIES] (4.0 cr)
- ENGL 3502 - British Literature II [HUMANITIES] (4.0 cr)
- ENGL 5566 - Irish Literary Revival (4.0 cr)
- ENGL 5583 - British Novel (4.0 cr)
- FMIS 3649 - International Finance (3.0 cr)
- FR 4412 - Contemporary French Culture and Society [HUMANITIES, GLOBAL PER] (4.0 cr)
- FR 4422 - 20th-Century Novel [HUMANITIES] (4.0 cr)
- FST 4225 - INTB 4201, Chinese Business and Economics (3.0 cr)
- FST 4295 - INTB 4211 Innovation in Ireland (GLOBAL PER) [GLOBAL PER] (3.0 cr)
- GEOG 3461 - Geography of Global Resources [SUSTAIN] (3.0 cr)
- GER 4302 - German Women Writers and Filmmakers [HUMANITIES] (4.0 cr)
- GER 4305 - German Cinema [HUMANITIES] (4.0 cr)
- GER 4404 - Contemporary Germany [HUMANITIES, GLOBAL PER] (4.0 cr)
- HCM 4560 - International Comparisons of Health Care Systems (3.0 cr)
- HIST 3243 - Europe in Crisis in the 20th Century (4.0 cr)
- HIST 3244 - History of Holocaust (4.0 cr)



- [HIST 3257](#) - Modern France (4.0 cr)
- [HIST 3264](#) - Imperial Russia (4.0 cr)
- [HIST 3386](#) - The United States and the World since 1898 (4.0 cr)
- [HIST 3615](#) - Modern Africa (4.0 cr)
- [HIST 3616](#) - Society and Culture in 20th-Century Africa (4.0 cr)
- [HIST 3726](#) - Modern Middle East: 18th Century-Present (4.0 cr)
- [HIST 3825](#) - Islamic History from Muhammad to the Ottomans (4.0 cr)
- [MGTS 4474](#) - International Management (3.0 cr)
- [MGTS 4483](#) - Cooperative Strategy and Strategic Alliances (3.0 cr)
- [MGTS 4861](#) - International Human Resource Management (3.0 cr)
- [MKTG 3781](#) - International Marketing (3.0 cr)
- [POL 3451](#) - Theories of International Relations (4.0 cr)
- [POL 3456](#) - International Security: War and More (4.0 cr)
- [POL 3517](#) - Western European Political Systems (4.0 cr)
- [POL 3570](#) - Politics of Developing Nations (3.0 cr)
- [SOC 3945](#) - Social Stratification (3.0 cr)
- [SPAN 3042](#) - Hispanic American Civilization and Culture [HUMANITIES, GLOBAL PER] (4.0 cr)
- [SPAN 3044](#) - Civilization, Cultures and Communities of Spain [HUMANITIES, GLOBAL PER] (4.0 cr)
- [SPAN 4011](#) - Hispanic American Prose [HUMANITIES] (4.0 cr)
- [SPAN 4018](#) - Hispanic America From Within [HUMANITIES] (4.0 cr)
- [SPAN 4027](#) - Contemporary Literature and Culture of Spain [HUMANITIES] (4.0 cr)
- [WS 3000](#) - Transnational Perspectives on Feminism [SOC SCI, GLOBAL PER] (3.0 cr)
- [WS 3001](#) - Gender Relations in the Global South [GLOBAL PER] (3.0 cr)
- [WS 3002](#) - Latin American Women: Culture and Politics (3.0 cr)
- [WS 3400](#) - Women and Film [GLOBAL PER] (3.0 cr)

**Advanced Writing Requirement and Professional Development (4 cr)**

- [FMIS 3141](#) - Business Communications (3.0 cr)
- or [WRIT 3121](#) - Advanced Writing: Business and Organizations (3.0 cr)
- [LSBE 3000](#) - Career Development for the Business Professional (1.0 cr)

### Duluth Campus

## Management Information Systems Minor

Finance & Management Information Sciences

### Labovitz School of Business and Economics

- Program Type: Undergraduate minor related to major
- Requirements for this program are current for Fall 2016
- Required credits in this minor: 12 to 30

The MIS minor provides a general overview of the design, implementation and management of information systems in business.

### Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

### Admission Requirements

A GPA above 2.0 is preferred for the following:

- 2.60 already admitted to the degree-granting college
- 2.60 transferring from another University of Minnesota college
- 2.60 transferring from outside the University

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

### Minor Requirements

The management information systems minor is available to LSBE and non-LSBE students.

### Program Sub-plans

Students are required to complete one of the following sub-plans.

#### MIS Minor for BBA/BAcc Students

##### Group A Requirement (6 cr)

[FMIS 3220](#) - Database Management and Design (3.0 cr)

[FMIS 3222](#) - Systems Analysis and Design (3.0 cr)

##### Group B Requirement (6 cr): Electives

Take exactly 6 credit(s) from the following:

- [FMIS 3224](#) - Data Communications and Computer Networks (3.0 cr)
- [FMIS 3232](#) - Computer Programming for Business (3.0 cr)
- [FMIS 4220](#) - Medical Informatics (3.0 cr)
- [FMIS 4221](#) - XML and Information Management (3.0 cr)

#### MIS Minor for Non-LSBE Students

An overall and UM GOA of 2.60 and 2.0 in LSBE courses and completion of the pre-minor core are required for automatic admission to this minor. Students with GPAs between 2.00 and 2.59 should consult with the LSBE Advising and Academic Services Office.

#### Non-LSBE Students Pre-Minor Core (15 - 18 cr)

Students are encouraged to complete ECON 1022 and 1023 as pre-minor core prerequisites.

[ACCT 2001](#) - Principles of Financial Accounting (3.0 cr)

[ECON 2030](#) - Applied Statistics for Business and Economics [LOGIC & QR] (3.0 cr)

[FMIS 2201](#) - Information Technology in Business (3.0 cr)

[MGTS 1101](#) - Introduction to Business [LE CAT8] (3.0 cr)

[ECON 1003](#) - Economics and Society [LE CAT8, SOC SCI] (3.0 cr)

or [ECON 1022](#) - Principles of Economics: Macro [LE CAT6, SOC SCI] (3.0 cr)

[ECON 1023](#) - Principles of Economics: Micro [LE CAT6, SOC SCI] (3.0 cr)

##### Group A Requirement (6 cr)

[FMIS 3220](#) - Database Management and Design (3.0 cr)

[FMIS 3222](#) - Systems Analysis and Design (3.0 cr)



**Group B Requirement (6 cr): Electives**

Take exactly 6 credit(s) from the following:

- [FMIS 3224](#) - Data Communications and Computer Networks (3.0 cr)
- [FMIS 3232](#) - Computer Programming for Business (3.0 cr)
- [FMIS 4220](#) - Medical Informatics (3.0 cr)
- [FMIS 4221](#) - XML and Information Management (3.0 cr)



## Duluth Campus

# Management Minor

Management Studies

## Labovitz School of Business and Economics

- Program Type: Undergraduate minor related to major
- Requirements for this program are current for Fall 2016
- Required credits in this minor: 12 to 30

The management minor provides a general overview of theories and practices which adds value to the business education of students.

## Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

## Admission Requirements

A GPA above 2.0 is preferred for the following:

- 2.60 already admitted to the degree-granting college
- 2.60 transferring from another University of Minnesota college
- 2.60 transferring from outside the University

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

## Minor Requirements

The management minor is available to LSBE and Non-LSBE students.

## Program Sub-plans

Students are required to complete one of the following sub-plans.

### Organizational Management for BBA/BAcc Students

B.Acc./B.B.A. candidates may wish to supplement their major coursework by completing a program-specific minor. (The general business administration minor, composed of the LSBE core, is not available to LSBE students.) Forms for declaring the minor are available in 111A Labovitz School of Business and Economics Building and may be submitted with the application for candidacy or any time after formal admission to a degree program.

### Required Courses (12 cr)

**MGTS 3401** - Organizational Behavior and Management (3.0 cr)

#### Electives

MGTS 4495 may be substituted (by petition only) for one of the following areas - macro-organizational or management and management process.

Take 3 or more course(s) totaling 9 or more credit(s) from the following:

#### Macro Organizational Behavior

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

- **MGTS 4411** - Organizational Studies (3.0 cr)
- **MGTS 4421** - Managing Change (3.0 cr)
- **MGTS 4483** - Cooperative Strategy and Strategic Alliances (3.0 cr)

#### Micro Organizational Behavior

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

- **MGTS 4431** - Leadership Studies (3.0 cr)
- **MGTS 4441** - Developing Managerial Skills (3.0 cr)
- **MGTS 4443** - Teams in Organizations (3.0 cr)
- **MGTS 4451** - Management Inquiry (3.0 cr)

#### Management and Management Process

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

- **MGTS 4461** - Business Ethics (3.0 cr)
- **MGTS 4463** - Sustainability and Sustainable Management (3.0 cr)
- **MGTS 4472** - Entrepreneurship (3.0 cr)



- MGTS 4473 - Management of Innovation and Technology (3.0 cr)
- MGTS 4474 - International Management (3.0 cr)
- MGTS 4475 - Negotiations, Bargaining and Conflict Resolution (3.0 cr)

#### Organizational Management for Non-LSBE Students

##### Non-LSBE Students Pre-Minor Core (15 - 18 cr)

Students are encouraged to complete ECON 1022 and 1023 as pre-minor core prerequisites.

- ACCT 2001 - Principles of Financial Accounting (3.0 cr)
- ECON 2030 - Applied Statistics for Business and Economics [LOGIC & QR] (3.0 cr)
- FMIS 2201 - Information Technology in Business (3.0 cr)
- MGTS 1101 - Introduction to Business [LE CAT8] (3.0 cr)
- ECON 1003 - Economics and Society [LE CAT8, SOC SCI] (3.0 cr)  
or ECON 1022 - Principles of Economics: Macro [LE CAT6, SOC SCI] (3.0 cr)  
ECON 1023 - Principles of Economics: Micro [LE CAT6, SOC SCI] (3.0 cr)

##### Required Courses (12 cr)

- MGTS 3401 - Organizational Behavior and Management (3.0 cr)

##### Electives

MGTS 4495 may be substituted (by petition only) for one of the following areas: macro-organizational or management and management process.

Take 3 or more course(s) totaling 9 or more credit(s) from the following:

##### Macro Organizational Behavior

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

- MGTS 4411 - Organizational Studies (3.0 cr)
- MGTS 4421 - Managing Change (3.0 cr)
- MGTS 4483 - Cooperative Strategy and Strategic Alliances (3.0 cr)

##### •Micro Organizational Behavior

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

- MGTS 4431 - Leadership Studies (3.0 cr)
- MGTS 4441 - Developing Managerial Skills (3.0 cr)
- MGTS 4443 - Teams in Organizations (3.0 cr)
- MGTS 4451 - Management Inquiry (3.0 cr)

##### •Management and Management Process

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

- MGTS 4461 - Business Ethics (3.0 cr)
- MGTS 4463 - Sustainability and Sustainable Management (3.0 cr)
- MGTS 4472 - Entrepreneurship (3.0 cr)
- MGTS 4473 - Management of Innovation and Technology (3.0 cr)
- MGTS 4474 - International Management (3.0 cr)
- MGTS 4475 - Negotiations, Bargaining and Conflict Resolution (3.0 cr)

#### Human Resource Management for BAA/BACC Students

B.Acc./B.B.A. candidates may wish to supplement their major coursework by completing a program-specific minor. (The general business administration minor, composed of the LSBE core, is not available to LSBE students.) Forms for declaring the minor are available in 111A Labovitz School of Business and Economics Building and may be submitted with the application for candidacy or any time after formal admission to a degree program.

##### Requirements (12 cr)

- MGTS 3801 - Human Resource Management (3.0 cr)

Take 3 or more course(s) totaling 9 or more credit(s) from the following:

- MGTS 4821 - Staffing Work Organizations (3.0 cr)
- MGTS 4831 - Compensation Systems (3.0 cr)
- MGTS 4841 - Training and Development (3.0 cr)
- MGTS 4851 - Labor Relations (3.0 cr)
- MGTS 4861 - International Human Resource Management (3.0 cr)
- MGTS 4871 - Strategic Human Resource Management (3.0 cr)
- MGTS 4881 - Human Resource Issues and Trends (3.0 cr)
- MGTS 4895 - Special Topics: (Various Titles to be Assigned) (1.0 - 3.0 cr)

#### Human Resources Management for Non-LSBE Students

##### Non-LSBE Students Pre-Minor Core (15 - 18 cr)

Students are encouraged to complete ECON 1022 and 1023 as pre-minor core prerequisites.

- ACCT 2001 - Principles of Financial Accounting (3.0 cr)
- ECON 2030 - Applied Statistics for Business and Economics [LOGIC & QR] (3.0 cr)
- FMIS 2201 - Information Technology in Business (3.0 cr)
- MGTS 1101 - Introduction to Business [LE CAT8] (3.0 cr)



ECON 1003 - Economics and Society [LE CAT8, SOC SCI] (3.0 cr)  
or ECON 1022 - Principles of Economics: Macro [LE CAT6, SOC SCI] (3.0 cr)  
ECON 1023 - Principles of Economics: Micro [LE CAT6, SOC SCI] (3.0 cr)

**Requirements (12 cr)**

MGTS 3801 - Human Resource Management (3.0 cr)

Take at most 9 credit(s) from the following:

- MGTS 4821 - Staffing Work Organizations (3.0 cr)
- MGTS 4831 - Compensation Systems (3.0 cr)
- MGTS 4841 - Training and Development (3.0 cr)
- MGTS 4851 - Labor Relations (3.0 cr)
- MGTS 4861 - International Human Resource Management (3.0 cr)
- MGTS 4871 - Strategic Human Resource Management (3.0 cr)
- MGTS 4881 - Human Resource Issues and Trends (3.0 cr)
- MGTS 4895 - Special Topics: (Various Titles to be Assigned) (1.0 - 3.0 cr)

## Duluth Campus

# Marketing Analytics B.B.A.

Marketing

## Labovitz School of Business and Economics

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 120
- Required credits within the major: 98
- This program requires summer terms.
- Degree: Bachelor of Business Administration

Marketing analytics is the study of people's shopping and consumption behavior to uncover their tastes and preferences, and to identify any behavioral patterns. Students learn about the application of statistical techniques to large databases to convert data into information and actionable knowledge. Analytics can also be used to study organizational purchase and sales data, and can provide critical and timely input to managerial decision making.

## Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

## Admission Requirements

Students must complete 60 credits before admission to the program.

A GPA above 2.0 is preferred for the following:

- 2.60 already admitted to the degree-granting college
- 2.60 transferring from another University of Minnesota college
- 2.60 transferring from outside the University

Students will need to apply for admission into the major. Admissions will be based on an interview and review of previous academic record.

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

### Required prerequisites

#### Introductory course (1 cr)

Not required for transfer students with 30 or more credits, or for students who change college to LSBE  
[UST 1000](#) - UMD Seminar (1.0 - 2.0 cr)

#### Pre-major requirements (37 cr)

[ACCT 2001](#) - Principles of Financial Accounting (3.0 cr)  
[ACCT 2002](#) - Principles of Managerial Accounting (3.0 cr)  
[BLAW 2001](#) - The Legal Environment [LE CAT8, HUMANITIES] (3.0 cr)  
[ECON 1022](#) - Principles of Economics: Macro [LE CAT6, SOC SCI] (3.0 cr)  
[ECON 1023](#) - Principles of Economics: Micro [LE CAT6, SOC SCI] (3.0 cr)  
[ECON 2030](#) - Applied Statistics for Business and Economics [LOGIC & QR] (3.0 cr)  
[FMIS 2201](#) - Information Technology in Business (3.0 cr)  
[LSBE 2000](#) - Interpersonal and Teamwork Skills (1.0 cr)  
[PSY 1003](#) - General Psychology [LE CAT6, SOC SCI] (4.0 cr)  
[WRIT 1120](#) - College Writing [LE CAT1, WRITING] (3.0 cr)  
[MATH 1160](#) - Finite Mathematics and Introduction to Calculus [LE CAT2, LOGIC & QR] (5.0 cr)  
or [MATH 1290](#) - Calculus for the Natural Sciences [LE CAT2, LOGIC & QR] (5.0 cr)  
or [MATH 1296](#) - Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)  
or [MATH 1596](#) - Honors: Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)  
[COMM 1112](#) - Public Speaking [LE CAT3, COMM & LAN] (3.0 cr)  
or [COMM 1222](#) - Interpersonal Communication [LE CAT3, LECD CAT03, COMM & LAN] (3.0 cr)  
or LSBE students are encouraged to take at least one year of a college-level foreign language (See LSBE Advising and Academic Services Office.)

## General Requirements

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

## Program Requirements

1. LSBE students are encouraged to take at least one year of college-level foreign language.
2. 50% of all required business credits, including the upper-division economics elective, must be taken from LSBE faculty.
3. Students must complete a minimum of 30 credits while enrolled in LSBE.
4. No more than 9 credits (3 courses) pertaining to a specific major may be taken abroad, unless an exception is approved by petition.

### LSBE Core Courses (18 cr)

- MGTS 3301 - Production and Operations Management (3.0 cr)
- FMIS 3601 - Corporate Finance (3.0 cr)
- MGTS 3401 - Organizational Behavior and Management (3.0 cr)
- MGTS 3801 - Human Resource Management (3.0 cr)
- MGTS 4481 - Strategic Management (3.0 cr)
- MKTG 3701 - Principles of Marketing (3.0 cr)

### Marketing Analytics (21 cr)

- ECON 4040 - Econometrics II (3.0 cr)
- FMIS 3220 - Database Management and Design (3.0 cr)
- MKTG 3711 - Marketing Research (3.0 cr)
- MKTG 3761 - Marketing Analytic I: Introduction to Marketing Metrics and Fundamental Analytic Techniques (3.0 cr)
- MKTG 3767 - Marketing Analytics Summer Internship (1.0 - 6.0 cr)
- MKTG 4731 - Consumer Behavior (3.0 cr)
- MKTG 4762 - Marketing Analytics II: Advanced Metrics and Analytic Techniques (3.0 cr)
- MKTG 4763 - Marketing Analytics Practicum (2.0 cr)

### Supporting Courses (17 cr)

In addition to the economics and international requirements listed below, complete upper division (3xxx or above) non-LSBE courses, for a total of 17 credits of supporting courses. NOTE: PSY 3020, SOC 3155, STAT 3411, or STAT 3611 cannot be used to fulfill this requirement.

#### Economics Requirement

- Take exactly 1 course(s) from the following:
- ECON 3xxx
  - ECON 4xxx

#### International Requirement

- Take exactly 1 course(s) from the following:
- ACCT 4505 - International Accounting (3.0 cr)
  - AMIN 3410 - Fur Trade in Canada and the United States [CDIVERSITY] (3.0 cr)
  - ANTH 3628 - Women in Cross-Cultural Perspective (3.0 cr)
  - ANTH 3632 - Latin American Cultures (3.0 cr)
  - ANTH 3638 - Peoples and Cultures of the Middle East (3.0 cr)



- ECON 3150 - Development Economics (3.0 cr)
- ECON 3402 - Global Economic Issues (3.0 cr)
- ECON 4410 - International Economics (3.0 cr)
- ENGL 3501 - British Literature I [HUMANITIES] (4.0 cr)
- ENGL 3502 - British Literature II [HUMANITIES] (4.0 cr)
- ENGL 5566 - Irish Literary Revival (4.0 cr)
- ENGL 5583 - British Novel (4.0 cr)
- FMIS 3649 - International Finance (3.0 cr)
- FR 4412 - Contemporary French Culture and Society [HUMANITIES, GLOBAL PER] (4.0 cr)
- FR 4422 - 20th-Century Novel [HUMANITIES] (4.0 cr)
- FST 4225 - INTB 4201, Chinese Business and Economics (3.0 cr)
- FST 4295 - INTB 4211 Innovation in Ireland (GLOBAL PER) [GLOBAL PER] (3.0 cr)
- GEOG 3461 - Geography of Global Resources [SUSTAIN] (3.0 cr)
- GER 4302 - German Women Writers and Filmmakers [HUMANITIES] (4.0 cr)
- GER 4305 - German Cinema [HUMANITIES] (4.0 cr)
- GER 4404 - Contemporary Germany [HUMANITIES, GLOBAL PER] (4.0 cr)
- HCM 4560 - International Comparisons of Health Care Systems (3.0 cr)
- HIST 3243 - Europe in Crisis in the 20th Century (4.0 cr)
- HIST 3244 - History of Holocaust (4.0 cr)
- HIST 3257 - Modern France (4.0 cr)
- HIST 3264 - Imperial Russia (4.0 cr)
- HIST 3386 - The United States and the World since 1898 (4.0 cr)
- HIST 3615 - Modern Africa (4.0 cr)
- HIST 3616 - Society and Culture in 20th-Century Africa (4.0 cr)
- HIST 3726 - Modern Middle East: 18th Century-Present (4.0 cr)
- HIST 3825 - Islamic History from Muhammad to the Ottomans (4.0 cr)
- MGTS 4474 - International Management (3.0 cr)
- MGTS 4483 - Cooperative Strategy and Strategic Alliances (3.0 cr)
- MGTS 4861 - International Human Resource Management (3.0 cr)
- MKTG 3781 - International Marketing (3.0 cr)
- POL 3451 - Theories of International Relations (4.0 cr)
- POL 3456 - International Security: War and More (4.0 cr)
- POL 3517 - Western European Political Systems (4.0 cr)
- POL 3570 - Politics of Developing Nations (3.0 cr)
- SOC 3945 - Social Stratification (3.0 cr)
- SPAN 3042 - Hispanic American Civilization and Culture [HUMANITIES, GLOBAL PER] (4.0 cr)
- SPAN 3044 - Civilization, Cultures and Communities of Spain [HUMANITIES, GLOBAL PER] (4.0 cr)
- SPAN 4011 - Hispanic American Prose [HUMANITIES] (4.0 cr)
- SPAN 4017 - Hispanic American Cinema and Culture [FINE ARTS] (4.0 cr)
- SPAN 4018 - Hispanic America From Within [HUMANITIES] (4.0 cr)
- SPAN 4027 - Contemporary Literature and Culture of Spain [HUMANITIES] (4.0 cr)
- WS 3000 - Transnational Perspectives on Feminism [SOC SCI, GLOBAL PER] (3.0 cr)
- WS 3001 - Gender Relations in the Global South [GLOBAL PER] (3.0 cr)
- WS 3002 - Latin American Women: Culture and Politics (3.0 cr)
- WS 3400 - Women and Film [GLOBAL PER] (3.0 cr)

**Advanced Writing and Professional Development Requirement (4 cr)**

WRIT 3121 - Advanced Writing: Business and Organizations (3.0 cr)

or FMIS 3141 - Business Communications (3.0 cr)

LSBE 3000 - Career Development for the Business Professional (1.0 cr)



## Duluth Campus

# Marketing Analytics Minor

Marketing

## Labovitz School of Business and Economics

- Program Type: Undergraduate minor related to major
- Requirements for this program are current for Fall 2016
- Required credits in this minor: 41 to 45
- This program requires summer terms.

Marketing analytics is the systematic study of customer data to optimize customer utility, while simultaneously improving the return on marketing and business investments. The term analytics refers to the application of statistical techniques to large databases to convert data into information and actionable recommendations. Analytics can also be used to study an organization's purchase and sale data to understand the value of different customer segments and create more accurate customer response and demand forecasting models. Analytics can provide critical and timely input to managerial decision making to make it more data drive and, ultimately, more effective. LSBE's minor in marketing analytics for non-LSBE students is designed for students with strong mathematics and statistics backgrounds. The marketing analytics minor builds upon these quantitative skills and develops data analysis skills and business knowledge.

## Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

## Admission Requirements

A GPA above 2.0 is preferred for the following:

- 2.60 already admitted to the degree-granting college
- 2.60 transferring from another University of Minnesota college
- 2.60 transferring from outside the University

Students will need to apply for admission into the Retail Marketing Analytics Program to pursue this minor. Admission will be based on interviews and review of previous academic record, particularly students' quantitative courses.

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

## Required prerequisites

### Pre-Minor Core (17-21 cr)

#### Math

**MATH 1160** - Finite Mathematics and Introduction to Calculus [LE CAT2, LOGIC & QR] (5.0 cr)  
or **MATH 1296** - Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)

#### Computer Science/IT

**CS 1511** - Computer Science I [LE CAT3, LOGIC & QR] (5.0 cr)  
or **FMIS 2201** - Information Technology in Business (3.0 cr)

#### Accounting

**ACCT 2001** - Principles of Financial Accounting (3.0 cr)

#### Economics/Statistics

**ECON 2030** - Applied Statistics for Business and Economics [LOGIC & QR] (3.0 cr)  
or **PSY 3020** - Statistical Methods (4.0 cr)  
or **SOC 3155** - Quantitative Research Methods and Analysis (4.0 cr)  
or **STAT 1411** - Introduction to Statistics [LE CAT2, LOGIC & QR] (3.0 cr)  
or **STAT 2411** - Statistical Methods [LE CAT2, LOGIC & QR] (3.0 cr)  
or **STAT 3411** - Engineering Statistics (3.0 cr)  
or **STAT 3611** - Introduction to Probability and Statistics (4.0 cr)

#### Economics

**ECON 1003** - Economics and Society [LE CAT8, SOC SCI] (3.0 cr)  
or **ECON 1022** - Principles of Economics: Macro [LE CAT6, SOC SCI] (3.0 cr)  
**ECON 1023** - Principles of Economics: Micro [LE CAT6, SOC SCI] (3.0 cr)

## Minor Requirements

### LSBE Upper Division (3 cr)

**MKTG 3701** - Principles of Marketing (3.0 cr)



**Marketing Analytics (21 cr)**

**Group A (6 cr)**

[MKTG 3711](#) - Marketing Research (3.0 cr)

[MKTG 4731](#) - Consumer Behavior (3.0 cr)

**Group B (9 cr)**

[MKTG 3761](#) - Marketing Analytic I: Introduction to Marketing Metrics and Fundamental Analytic Techniques (3.0 cr)

[MKTG 3767](#) - Marketing Analytics Summer Internship (1.0 - 6.0 cr)

[MKTG 4762](#) - Marketing Analytics II: Advanced Metrics and Analytic Techniques (3.0 cr)

[MKTG 4763](#) - Marketing Analytics Practicum (2.0 cr)

**Group C (6 cr)**

[FMIS 3220](#) - Database Management and Design (3.0 cr)

[ECON 4040](#) - Econometrics II (3.0 cr)

or [STAT 5411](#) - Analysis of Variance (3.0 cr)

or [STAT 5511](#) - Regression Analysis (3.0 cr)

## Duluth Campus

# Marketing and Graphic Design B.B.A.

Marketing

## Labovitz School of Business and Economics

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 120
- Required credits within the major: 107
- Degree: Bachelor of Business Administration

Marketing & Graphic Design (MGD) combines knowledge and skills from two complementary domains: marketing and graphic design. Students enrolled in this major will get a broad exposure to the fundamentals of business and economics. In addition, they will receive specialized training in marketing and creative design. The degree enables graduates to work effectively in industry-standard creative teams, moving from empirically identifying and measuring consumer needs and desires to the design of effective promotional graphic systems and materials. Students enrolled in BBA-MGD will not be eligible to major or minor in marketing because of the curriculum overlap.

## Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

## Admission Requirements

Students must complete 11 courses before admission to the program.

Freshman and transfer students are usually admitted to pre-major status before admission to this major

A GPA above 2.0 is preferred for the following:

- 2.60 already admitted to the degree-granting college
- 2.60 transferring from another University of Minnesota college
- 2.60 transferring from outside the University

Students will need to apply for admission into the major. Admissions will be based on interviews and review of previous academic record. Once admitted, students should meet the Apple MacBook Pro requirement for taking graphic design courses.

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

### Required prerequisites

#### Introductory Course (1 cr)

Not required for transfer students with 30 or more credits, or for students who change college into LSBE.

[UST 1000](#) - UMD Seminar (1.0 - 2.0 cr)

#### Pre-major Requirements (33 cr)

[ACCT 2001](#) - Principles of Financial Accounting (3.0 cr)

[BLAW 2001](#) - The Legal Environment [LE CAT8, HUMANITIES] (3.0 cr)

[ECON 1022](#) - Principles of Economics: Macro [LE CAT6, SOC SCI] (3.0 cr)

[ECON 1023](#) - Principles of Economics: Micro [LE CAT6, SOC SCI] (3.0 cr)

[ECON 2030](#) - Applied Statistics for Business and Economics [LOGIC & QR] (3.0 cr)

[FMIS 2201](#) - Information Technology in Business (3.0 cr)

[PSY 1003](#) - General Psychology [LE CAT6, SOC SCI] (4.0 cr)

[WRIT 1120](#) - College Writing [LE CAT1, WRITING] (3.0 cr)

#### Communications or Foreign Language

LSBE students are encouraged to take at least one year of a college-level foreign language. (See Students Affairs)

[COMM 1112](#) - Public Speaking [LE CAT3, COMM & LAN] (3.0 cr)

or [COMM 1222](#) - Interpersonal Communication [LE CAT3, LECD CAT03, COMM & LAN] (3.0 cr)

#### Math

[MATH 1160](#) - Finite Mathematics and Introduction to Calculus [LE CAT2, LOGIC & QR] (5.0 cr)

or [MATH 1296](#) - Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)

## General Requirements

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

## Program Requirements

1. LSBE students are encouraged to take at least one year of college-level foreign language.
2. 50% of all required business credits, including the upper-division economics elective, must be taken from LSBE faculty.
3. Students must complete a minimum of 30 credits while enrolled in LSBE.
4. No more than 9 credits (3 courses) pertaining to a specific major may be taken abroad, unless an exception is approved by petition.

### Arts/Design Lower Division (15 cr)

- [ART 1011](#) - 2-D Design (3.0 cr)
- [ART 1013](#) - 2-D Digital Design (3.0 cr)
- [ART 1900](#) - Visual Literacy [LE CAT9, FINE ARTS] (3.0 cr)
- [ART 2905](#) - Design Technology I (3.0 cr)
- [ART 2907](#) - Typography I (3.0 cr)

### LSBE Core (18 cr)

- [MGTS 3301](#) - Production and Operations Management (3.0 cr)
- [FMIS 3601](#) - Corporate Finance (3.0 cr)
- [MGTS 3401](#) - Organizational Behavior and Management (3.0 cr)
- [MGTS 3801](#) - Human Resource Management (3.0 cr)
- [MGTS 4481](#) - Strategic Management (3.0 cr)
- [MKTG 3701](#) - Principles of Marketing (3.0 cr)

### Marketing Group A (9 cr)

- [MKTG 3711](#) - Marketing Research (3.0 cr)
- [MKTG 4721](#) - Advertising and Marketing Communications (3.0 cr)
- [MKTG 4731](#) - Consumer Behavior (3.0 cr)

### Marketing Electives Group B (9 cr)

MKTG 3711, 3761, 3767, 4721, 4731, 4762, 4763 may not be used to fulfill this requirement.

Take 9 or more credits from the following:

- MKTG 37xx
- or MKTG 47xx

### Arts/Design Electives Group C (12 cr)

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

- [ART 2911](#) - Graphic Design I (3.0 cr)
- [ART 3937](#) - Typography II (3.0 cr)
- [ART 3922](#) - Graphic Design II (3.0 cr)
- [ART 3933](#) - Graphic Design III (3.0 cr)

- ART 2906 - Design Technology II (3.0 cr)
- ART 4908 - Interactive Design I (3.0 cr)

**Supporting Courses (7 cr)**

**Economics or Non-LSBE Requirement**

Take one Economics 3xxx or 4xxx course or any other non-LSBE course.

**International Requirement**

Take exactly 1 course(s) from the following:

- ACCT 4505 - International Accounting (3.0 cr)
- AMIN 3410 - Fur Trade in Canada and the United States [CDIVERSITY] (3.0 cr)
- ANTH 3628 - Women in Cross-Cultural Perspective (3.0 cr)
- ANTH 3632 - Latin American Cultures (3.0 cr)
- ANTH 3638 - Peoples and Cultures of the Middle East (3.0 cr)
- ECON 3150 - Development Economics (3.0 cr)
- ECON 3402 - Global Economic Issues (3.0 cr)
- ECON 4410 - International Economics (3.0 cr)
- ENGL 3501 - British Literature I [HUMANITIES] (4.0 cr)
- ENGL 3502 - British Literature II [HUMANITIES] (4.0 cr)
- ENGL 5566 - Irish Literary Revival (4.0 cr)
- ENGL 5583 - British Novel (4.0 cr)
- FMIS 3649 - International Finance (3.0 cr)
- FR 4412 - Contemporary French Culture and Society [HUMANITIES, GLOBAL PER] (4.0 cr)
- FR 4422 - 20th-Century Novel [HUMANITIES] (4.0 cr)
- FST 4225 - INTB 4201, Chinese Business and Economics (3.0 cr)
- FST 4295 - INTB 4211 Innovation in Ireland (GLOBAL PER) [GLOBAL PER] (3.0 cr)
- GEOG 3461 - Geography of Global Resources [SUSTAIN] (3.0 cr)
- GER 4302 - German Women Writers and Filmmakers [HUMANITIES] (4.0 cr)
- GER 4305 - German Cinema [HUMANITIES] (4.0 cr)
- GER 4404 - Contemporary Germany [HUMANITIES, GLOBAL PER] (4.0 cr)
- HCM 4560 - International Comparisons of Health Care Systems (3.0 cr)
- HIST 3243 - Europe in Crisis in the 20th Century (4.0 cr)
- HIST 3244 - History of Holocaust (4.0 cr)
- HIST 3257 - Modern France (4.0 cr)
- HIST 3264 - Imperial Russia (4.0 cr)
- HIST 3386 - The United States and the World since 1898 (4.0 cr)
- HIST 3615 - Modern Africa (4.0 cr)
- HIST 3616 - Society and Culture in 20th-Century Africa (4.0 cr)
- HIST 3726 - Modern Middle East: 18th Century-Present (4.0 cr)
- HIST 3825 - Islamic History from Muhammad to the Ottomans (4.0 cr)
- MGTS 4474 - International Management (3.0 cr)
- MGTS 4483 - Cooperative Strategy and Strategic Alliances (3.0 cr)
- MGTS 4861 - International Human Resource Management (3.0 cr)
- MKTG 3781 - International Marketing (3.0 cr)
- POL 3451 - Theories of International Relations (4.0 cr)
- POL 3456 - International Security: War and More (4.0 cr)
- POL 3517 - Western European Political Systems (4.0 cr)
- POL 3570 - Politics of Developing Nations (3.0 cr)
- SOC 3945 - Social Stratification (3.0 cr)
- SPAN 3042 - Hispanic American Civilization and Culture [HUMANITIES, GLOBAL PER] (4.0 cr)
- SPAN 3044 - Civilization, Cultures and Communities of Spain [HUMANITIES, GLOBAL PER] (4.0 cr)
- SPAN 4011 - Hispanic American Prose [HUMANITIES] (4.0 cr)
- SPAN 4017 - Hispanic American Cinema and Culture [FINE ARTS] (4.0 cr)
- SPAN 4018 - Hispanic America From Within [HUMANITIES] (4.0 cr)
- SPAN 4027 - Contemporary Literature and Culture of Spain [HUMANITIES] (4.0 cr)
- WS 3000 - Transnational Perspectives on Feminism [SOC SCI, GLOBAL PER] (3.0 cr)
- WS 3001 - Gender Relations in the Global South [GLOBAL PER] (3.0 cr)
- WS 3002 - Latin American Women: Culture and Politics (3.0 cr)
- WS 3400 - Women and Film [GLOBAL PER] (3.0 cr)

**Advanced Writing Requirement (3 cr)**

FMIS 3141 - Business Communications (3.0 cr)

or WRIT 3121 - Advanced Writing: Business and Organizations (3.0 cr)

## Duluth Campus

# Marketing B.B.A.

Marketing

## Labovitz School of Business and Economics

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 120
- Required credits within the major: 98
- Degree: Bachelor of Business Administration

This professionally-oriented program emphasizes the competencies required for management careers in business, government, public, or social service organizations. The program prepares students for entering careers with management responsibility by providing breadth and depth of knowledge about organizations, management fundamentals, techniques, processes, and skills, combined with a foundation in the functional areas of accounting, business law, finance, information systems, operations, and human resource management.

The B.B.A. offers a broad educational experience, while preparing students for a variety of technical and management careers. With about one-half of the required coursework from non-business disciplines, emphasis is on the development of a strong liberal arts education that provides a foundation for the required and elective professional courses. The program's core curriculum focuses on the fundamental administrative and functional skills demanded of leaders in today's public and private organizations. Students are permitted sufficient latitude in choosing electives appropriate for their particular professional objectives in finance, human resource management, organizational management, management information systems, or marketing.

Marketing is about facilitating exchanges. For an organization to be successful, it must understand the customer and the customer's needs. An organization seeks to meet these needs in a competitive environment by developing a marketing mix of product and service, price, promotion, and distribution that will satisfy the customer's and organization's objectives. Marketing occurs between organizations (business-to-business marketing), between organizations and consumers (consumer marketing), globally (international marketing), between profit and not-for-profit organizations, and even between individuals. Many careers are available in marketing, including those in marketing research, selling and sales management, advertising, promotion and public relations, and international marketing.

In addition to classroom-based courses, students may participate in Student to Business Initiative (SBI) projects, or internship programs where classroom learning may be applied during professional experience as an employee of a public agency or private business.

## Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

## Admission Requirements

Freshman and transfer students are usually admitted to pre-major status before admission to this major

A GPA above 2.0 is preferred for the following:

- 2.60 already admitted to the degree-granting college
- 2.60 transferring from another University of Minnesota college
- 2.60 transferring from outside the University

Freshmen and transfer students are typically admitted as pre-business students for all B.B.A. majors. Admission to candidacy status, which allows access to upper division LSBE classes, typically occurs at the junior level when students have successfully completed all pre-major (pre-candidacy) course requirements, and met all of the GPA standards. Students with 2.60 UM and overall, and 2.00 internal and pre-major GPAs, are admitted upon completion of pre-major courses; students with 2.00-2.59 UM and overall, and 2.00 internal and pre-major GPAs, are pooled and reviewed for evidence of academic success in LSBE majors.

Students who do not qualify for admission to candidacy may not take upper division LSBE courses (excluding some economics courses) without permission of the director of student affairs.

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

### Required prerequisites

#### Introductory course (1 cr)

Not required for transfer students with 30 or more credits, or for students who change college to LSBE.

[UST 1000](#) - UMD Seminar (1.0 - 2.0 cr)



### Pre-major requirements (37 cr)

- ACCT 2001 - Principles of Financial Accounting (3.0 cr)
- ACCT 2002 - Principles of Managerial Accounting (3.0 cr)
- BLAW 2001 - The Legal Environment [LE CAT8, HUMANITIES] (3.0 cr)
- ECON 1022 - Principles of Economics: Macro [LE CAT6, SOC SCI] (3.0 cr)
- ECON 1023 - Principles of Economics: Micro [LE CAT6, SOC SCI] (3.0 cr)
- ECON 2030 - Applied Statistics for Business and Economics [LOGIC & QR] (3.0 cr)
- FMIS 2201 - Information Technology in Business (3.0 cr)
- LSBE 2000 - Interpersonal and Teamwork Skills (1.0 cr)
- PSY 1003 - General Psychology [LE CAT6, SOC SCI] (4.0 cr)
- WRIT 1120 - College Writing [LE CAT1, WRITING] (3.0 cr)
- MATH 1160 - Finite Mathematics and Introduction to Calculus [LE CAT2, LOGIC & QR] (5.0 cr)  
or MATH 1290 - Calculus for the Natural Sciences [LE CAT2, LOGIC & QR] (5.0 cr)  
or MATH 1296 - Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)  
or MATH 1596 - Honors: Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)

### Communications or Foreign Languages

- COMM 1112 - Public Speaking [LE CAT3, COMM & LAN] (3.0 cr)
- or COMM 1222 - Interpersonal Communication [LE CAT3, LECD CAT03, COMM & LAN] (3.0 cr)
- or LSBE students are encouraged to take at least one year of a college-level foreign language. (See LSBE Advising and Academic Services Office)

## General Requirements

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

## Program Requirements

1. LSBE students are encouraged to take at least one year of college-level foreign language.
2. 50% of all required business credits, including the upper-division economics elective, must be taken from LSBE faculty.
3. Students must complete a minimum of 30 credits while enrolled in LSBE.
4. No more than 9 credits (3 courses) pertaining to a specific major may be taken abroad, unless an exception is approved by petition.

### LSBE Core (18 cr)

- FMIS 3601 - Corporate Finance (3.0 cr)
- MGTS 3301 - Production and Operations Management (3.0 cr)
- MGTS 3401 - Organizational Behavior and Management (3.0 cr)
- MGTS 3801 - Human Resource Management (3.0 cr)
- MGTS 4481 - Strategic Management (3.0 cr)
- MKTG 3701 - Principles of Marketing (3.0 cr)

### Marketing Group A (9 cr)

MKTG 3711 - Marketing Research (3.0 cr)  
 MKTG 4731 - Consumer Behavior (3.0 cr)  
 MKTG 4781 - Marketing Management and Strategy (3.0 cr)

#### Marketing Group B (12 cr)

Students may take either FST 4225 OR FST 4295, but not both, for credit within this requirement. MKTG 3701, 3711, 4731 and 4781 may not be used to fulfill this requirement. A maximum of 3 credits of MKTG 3797 may be applied to Group B; additional internship credits may be applied to supporting courses.

Take 4 or more course(s) totaling 12 or more credit(s) from the following:

- FST 4225 - INTB 4201, Chinese Business and Economics (3.0 cr)
- FST 4295 - INTB 4211 Innovation in Ireland (GLOBAL PER) [GLOBAL PER] (3.0 cr)
- MKTG 37xx
- MKTG 47xx

#### Supporting Courses (17 cr)

In addition to economics and international requirements listed below, you may complete up to 3 credits of additional internship credits and upper division (3xxx or above) non-LSBE courses, for a total of 17 credits of supporting courses. NOTE: PSY 3020, STAT 3611 and SOC 3155 are equivalent to ECON 2030, and cannot be used to fulfill these requirements.

##### Economics Requirement

Take exactly 1 course(s) from the following:

- ECON 3xxx
- ECON 4xxx

##### International Requirement

Take exactly 1 course(s) from the following:

- ACCT 4505 - International Accounting (3.0 cr)
- AMIN 3410 - Fur Trade in Canada and the United States [CDIVERSITY] (3.0 cr)
- ANTH 3628 - Women in Cross-Cultural Perspective (3.0 cr)
- ANTH 3632 - Latin American Cultures (3.0 cr)
- ANTH 3638 - Peoples and Cultures of the Middle East (3.0 cr)
- ECON 3150 - Development Economics (3.0 cr)
- ECON 3402 - Global Economic Issues (3.0 cr)
- ECON 4410 - International Economics (3.0 cr)
- ENGL 3501 - British Literature I [HUMANITIES] (4.0 cr)
- ENGL 3502 - British Literature II [HUMANITIES] (4.0 cr)
- ENGL 5566 - Irish Literary Revival (4.0 cr)
- ENGL 5583 - British Novel (4.0 cr)
- FMIS 3649 - International Finance (3.0 cr)
- FR 4412 - Contemporary French Culture and Society [HUMANITIES, GLOBAL PER] (4.0 cr)
- FR 4422 - 20th-Century Novel [HUMANITIES] (4.0 cr)
- FST 4225 - INTB 4201, Chinese Business and Economics (3.0 cr)
- FST 4295 - INTB 4211 Innovation in Ireland (GLOBAL PER) [GLOBAL PER] (3.0 cr)
- GEOG 3461 - Geography of Global Resources [SUSTAIN] (3.0 cr)
- GER 4302 - German Women Writers and Filmmakers [HUMANITIES] (4.0 cr)
- GER 4305 - German Cinema [HUMANITIES] (4.0 cr)
- GER 4404 - Contemporary Germany [HUMANITIES, GLOBAL PER] (4.0 cr)
- HCM 4560 - International Comparisons of Health Care Systems (3.0 cr)
- HIST 3243 - Europe in Crisis in the 20th Century (4.0 cr)
- HIST 3244 - History of Holocaust (4.0 cr)
- HIST 3257 - Modern France (4.0 cr)
- HIST 3264 - Imperial Russia (4.0 cr)
- HIST 3386 - The United States and the World since 1898 (4.0 cr)
- HIST 3615 - Modern Africa (4.0 cr)
- HIST 3616 - Society and Culture in 20th-Century Africa (4.0 cr)
- HIST 3726 - Modern Middle East: 18th Century-Present (4.0 cr)
- HIST 3825 - Islamic History from Muhammad to the Ottomans (4.0 cr)
- MGTS 4474 - International Management (3.0 cr)
- MGTS 4483 - Cooperative Strategy and Strategic Alliances (3.0 cr)
- MGTS 4861 - International Human Resource Management (3.0 cr)
- MKTG 3781 - International Marketing (3.0 cr)
- POL 3451 - Theories of International Relations (4.0 cr)
- POL 3456 - International Security: War and More (4.0 cr)
- POL 3517 - Western European Political Systems (4.0 cr)
- POL 3570 - Politics of Developing Nations (3.0 cr)
- SOC 3945 - Social Stratification (3.0 cr)
- SPAN 3042 - Hispanic American Civilization and Culture [HUMANITIES, GLOBAL PER] (4.0 cr)



- [SPAN 3044](#) - Civilization, Cultures and Communities of Spain [HUMANITIES, GLOBAL PER] (4.0 cr)
- [SPAN 4011](#) - Hispanic American Prose [HUMANITIES] (4.0 cr)
- [SPAN 4018](#) - Hispanic America From Within [HUMANITIES] (4.0 cr)
- [SPAN 4027](#) - Contemporary Literature and Culture of Spain [HUMANITIES] (4.0 cr)
- [WS 3000](#) - Transnational Perspectives on Feminism [SOC SCI, GLOBAL PER] (3.0 cr)
- [WS 3001](#) - Gender Relations in the Global South [GLOBAL PER] (3.0 cr)
- [WS 3002](#) - Latin American Women: Culture and Politics (3.0 cr)
- [WS 3400](#) - Women and Film [GLOBAL PER] (3.0 cr)

**Advanced Writing and Professional Development Requirement (4 cr)**

[FMIS 3141](#) - Business Communications (3.0 cr)

or [WRIT 3121](#) - Advanced Writing: Business and Organizations (3.0 cr)

[LSBE 3000](#) - Career Development for the Business Professional (1.0 cr)

## Duluth Campus

# Marketing Minor

Marketing

## Labovitz School of Business and Economics

- Program Type: Undergraduate minor related to major
- Requirements for this program are current for Fall 2016
- Required credits in this minor: 12 to 30

The minor in marketing is about facilitating exchanges.

## Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

## Admission Requirements

A GPA above 2.0 is preferred for the following:

- 2.60 already admitted to the degree-granting college
- 2.60 transferring from another University of Minnesota college
- 2.60 transferring from outside the University

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

## Minor Requirements

The marketing minor is available to LSBE and non-LSBE students.

## Program Sub-plans

Students are required to complete one of the following sub-plans.

### Marketing Minor for BBA/BAcc Students

#### Prerequisite (3 cr)

[MKTG 3701](#) - Principles of Marketing (3.0 cr)

#### Electives (9 cr)

MKTG 3701, 3761, 3767, 4762 and 4763 may not be used to fulfill this requirement.

Take exactly 9 credit(s) from the following:

- MKTG 37xx
- MKTG 47xx

### Marketing Minor for non-LSBE Students

An overall and UM GPA of 2.60 and 2.00 in LSBE courses and completion of the pre-minor core are required for automatic admission to this minor. Students with GPAs between 2.00 and 2.59 should consult with the LSBE Advising and Academic Services Office.

#### Non-LSBE Students Pre-Minor Core (15 - 18 cr)

Students are encouraged to complete ECON 1022 and 1023 as pre-minor core prerequisites.

[ACCT 2001](#) - Principles of Financial Accounting (3.0 cr)

[ECON 2030](#) - Applied Statistics for Business and Economics [LOGIC & QR] (3.0 cr)

[FMIS 2201](#) - Information Technology in Business (3.0 cr)

[MGTS 1101](#) - Introduction to Business [LE CAT8] (3.0 cr)

#### Economics

[ECON 1003](#) - Economics and Society [LE CAT8, SOC SCI] (3.0 cr)

or [ECON 1022](#) - Principles of Economics: Macro [LE CAT6, SOC SCI] (3.0 cr)

[ECON 1023](#) - Principles of Economics: Micro [LE CAT6, SOC SCI] (3.0 cr)

#### Prerequisite (3 cr)

[MKTG 3701](#) - Principles of Marketing (3.0 cr)

#### Electives (9 cr)

MKTG 3701, 3761, 3767, 4762 and 4763 may not be used to fulfill this requirement.



Take exactly 9 credit(s) from the following:

- MKTG 37xx
- MKTG 47xx

## Duluth Campus

# Aerospace Studies Minor

*Aerospace Studies*

## Swenson College of Science and Engineering

- Program Type: Undergraduate free-standing minor
- Requirements for this program are current for Fall 2016
- Required credits in this minor: 40 to 41

The Air Force Reserve Officer Training Corps (AFROTC) is a college-level educational program that gives students the opportunity to become Air Force officers while completing their degrees. Any student may enroll in aerospace studies courses. AFROTC offers post-collegiate opportunities in more than 100 career specialties. Air Force officers are challenged with organizational responsibilities and experiences not often available to new college graduates. This program is for students who want to challenge themselves as Air Force leaders and managers while serving their country in a professional, high-tech environment.

Active-duty Air Force officers provide a curriculum that gives students insight into the mission, organization, and operation of the U.S. Air Force. Students study Air Force history, leadership, management, professionalism, and U.S. foreign policy and its relationship to defense policy. Scholarships are available on a competitive basis. High school seniors and college students can compete for four-, three-, two-year scholarships that cover tuition, fees, and book expenses. Participants may qualify to receive a tax-free allowance for each month in school.

The aerospace studies minor provides preparation in areas studied by most officers early in their service careers. The minor increases future officers' performance potential in two areas in which all officers must eventually develop competence: communication skills and international affairs.

## Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

## Minor Requirements

### Lower Division (14 cr)

- AIR 1000 must be taken 4 times, 1 credit each time.
- [AIR 1000](#) - AFROTC GMC Lead Lab (1.0 cr)
- [AIR 1101](#) - Foundations of the U.S. Air Force (1.0 cr)
- [AIR 1102](#) - Foundations of the U.S. Air Force (1.0 cr)
- [AIR 2101](#) - The Evolution of the U.S. Air Force Air and Space Power (1.0 cr)
- [AIR 2102](#) - The Evolution of the U.S. Air Force Air and Space Power (1.0 cr)

### Communication

- [COMM 1112](#) - Public Speaking [LE CAT3, COMM & LAN] (3.0 cr)
- or [COMM 1222](#) - Interpersonal Communication [LE CAT3, LECD CAT03, COMM & LAN] (3.0 cr)

### Math

- Take 3 or more credit(s) from the following:
  - MATH 1xxx
  - MATH 2xxx

### Upper Division (23 cr)

- AIR 3001 must be taken 4 times, 2 credits each time.
- [AIR 3001](#) - AFROTC POC Lead Lab (2.0 cr)
- [AIR 3101](#) - Air Force Leadership Studies (3.0 cr)
- [AIR 3102](#) - Air Force Leadership Studies (3.0 cr)
- [AIR 4101](#) - National Security Affairs, Preparation for Active Duty (3.0 cr)
- [AIR 4102](#) - National Security Affairs, Preparation for Active Duty (3.0 cr)

### Advanced Writing

- [WRIT 31xx](#) (3.0 cr)

### Electives (3 - 4 cr)

The history and political science courses must be approved by department head.

- Take 1 or more course(s) totaling 3 - 4 credit(s) from the following:
  - [GEOG 4393](#) - Political Geography (3.0 cr)



- POL 3xxx
- HIST 2xxx
- or HIST 3xxx

### Duluth Campus

## Applied Physics B.S.

UMD-Physics & Astronomy

### Swenson College of Science and Engineering

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 120
- Required credits within the major: 78 to 79
- Degree: Bachelor of Science

The B.S. in applied physics is primarily for students planning to work in industry and offers flexibility in selection of technical electives. The physics courses emphasize conceptual foundations, problem-solving skills, and experimental and computational techniques.

Students are encouraged to participate in research, with emphasis in experimental high-energy physics and particle astrophysics, limnological research, including observational studies and modeling of lakes, and computational physics. Additional faculty interests include optics and condensed matter physics. The department also offers courses required for other science and engineering programs.

Honors Requirements: To graduate with honors, students must participate in the department honors program, complete and present a research project, and maintain a GPA above 3.00 overall and in the major. They are also expected to attend department colloquia. Interested students should contact the physics honors program coordinator.

### Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

### Admission Requirements

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

### General Requirements

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

### Program Requirements

1. A minor or a second major in a different program.
2. The first math course is determined by the Math ACT score. The sample plan presupposes placement into MATH 1296.
3. Courses numbered above 3xxx are offered in alternate years only. Some courses suggested in the sample plan for the junior and

senior years may need to be switched to match the course offerings.

### Core Courses (31 cr)

#### Physics I

- PHYS 2013 - General Physics I [LE CAT5, NAT SCI] (4.0 cr)  
or PHYS 2017 - Honors: General Physics I [NAT SCI] (4.0 cr)
- PHYS 2014 - General Physics Lab I [NAT SCI] (1.0 cr)

#### Physics II

- PHYS 2015 - General Physics II (4.0 cr)  
or PHYS 2018 - Honors General Physics II (4.0 cr)
- PHYS 2016 - General Physics Lab II (1.0 cr)

#### Additional Core Physics Requirements

- PHYS 1021 - Exploring Current Topics in Physics (1.0 cr)
- PHYS 2021 - Relativity and Quantum Physics (4.0 cr)
- PHYS 2022 - Classical Physics (4.0 cr)
- PHYS 2033 - Classical and Quantum Physics Lab (2.0 cr)
- PHYS 3061 - Instrumentation (3.0 cr)
- PHYS 5061 - Experimental Methods (3.0 cr)
- PHYS 5090 - Physics Seminar (1.0 cr)
- PHYS 5052 - Computational Methods in Physics (3.0 cr)  
or PHYS 5053 - Data Analysis Methods in Physics (3.0 cr)

### Electives (8 cr)

Take 8 or more credit(s) from the following:

- PHYS 4001 - Classical Mechanics (4.0 cr)
- PHYS 4011 - Electromagnetic Theory (4.0 cr)
- PHYS 4021 - Quantum Physics II (4.0 cr)
- PHYS 4031 - Thermal and Statistical Physics (4.0 cr)

### Technical Electives (9 cr)

The computational course not selected in Core Courses may be used as a technical elective. Engineering courses approved by the department may also be used.

Take 9 or more credit(s) from the following:

- AST 4110 - Observational Astronomy (3.0 cr)
- LIM 5101 - Physical Limnology (3.0 cr)
- PHYS 3033 - Analytical Methods in Physics (3.0 cr)
- PHYS 5041 - Optics (3.0 cr)
- PHYS 5531 - Introduction to Solid State Physics (3.0 cr)
- PHYS 5541 - Fluid Dynamics (3.0 cr)
- PHYS 5052 - Computational Methods in Physics (3.0 cr)  
or PHYS 5053 - Data Analysis Methods in Physics (3.0 cr)
- PHYS 3561 - Astrophysics (3.0 cr)  
or PHYS 5561 - Astrophysics (3.0 cr)

### Courses From Other Programs (30 - 31 cr)

Two semesters of chemistry are recommended.

#### Chemistry

- CHEM 1153 - General Chemistry I [LE CAT5, NAT SCI] (4.0 cr)
- CHEM 1154 - General Chemistry Lab I [LE CAT4, NAT SCI] (1.0 cr)

#### Computer Science

- CS 1411 - Introduction to Programming in Matlab (4.0 cr)
- or CS 1511 - Computer Science I [LE CAT3, LOGIC & QR] (5.0 cr)

#### Math

- MATH 1296 - Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)  
or MATH 1596 - Honors: Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)
- MATH 1297 - Calculus II [LOGIC & QR] (5.0 cr)  
or MATH 1597 - Honors: Calculus II [LOGIC & QR] (5.0 cr)
- MATH 3280 - Differential Equations with Linear Algebra (4.0 cr)
- MATH 3298 - Calculus III (4.0 cr)

#### Advanced Writing

- WRIT 3130 - Advanced Writing: Engineering (3.0 cr)
- or WRIT 3150 - Advanced Writing: Science (3.0 cr)

### Duluth Campus

## Astronomy Minor

*D Earth & Environmental Sci, UMD-Physics & Astronomy*

### Swenson College of Science and Engineering

- Program Type: Undergraduate free-standing minor
- Requirements for this program are current for Fall 2016
- Required credits in this minor: 36
- None

The astronomy minor enhances students' understanding of the formation, structure, and evolution of the universe while providing a sound foundation for professional programs in the sciences. The minor program covers a wide range of topics in general astronomy, comparative planetology, stellar dynamics, astrophysics, cosmology, and techniques of astronomical observation and analysis.

## Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

## Minor Requirements

### Astronomy Required Courses (26 cr)

#### Astronomy

[AST 1040](#) - Introductory Astronomy [LE CAT5, NAT SCI] (3.0 cr)

[AST 4110](#) - Observational Astronomy (3.0 cr)

#### Astronomy/Geology

[AST 2040](#) - The Solar System (3.0 cr)

or [GEOL 2120](#) - The Earth's Dynamic Interior (3.0 cr)

#### Physics I

[PHYS 2013](#) - General Physics I [LE CAT5, NAT SCI] (4.0 cr)

or [PHYS 2017](#) - Honors: General Physics I [NAT SCI] (4.0 cr)

[PHYS 2014](#) - General Physics Lab I [NAT SCI] (1.0 cr)

#### Physics II

[PHYS 2015](#) - General Physics II (4.0 cr)

[PHYS 2016](#) - General Physics Lab II (1.0 cr)

#### Physics

[PHYS 2021](#) - Relativity and Quantum Physics (4.0 cr)

[PHYS 3561](#) - Astrophysics (3.0 cr)

### Math Requirement (10 cr)

#### Calculus I

[MATH 1296](#) - Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)

or [MATH 1596](#) - Honors: Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)

#### Calculus II

[MATH 1297](#) - Calculus II [LOGIC & QR] (5.0 cr)

or [MATH 1597](#) - Honors: Calculus II [LOGIC & QR] (5.0 cr)

### Duluth Campus

## Biochemical Engineering Minor

Chemical Engineering

### Swenson College of Science and Engineering

- Program Type: Undergraduate free-standing minor
- Requirements for this program are current for Fall 2016
- Required credits in this minor: 46 to 47

Significant advances in the biological sciences and engineering have had a dramatic effect on the environmental, chemical, and health care industries. Chemical engineering programs have become more diversified to include curriculum in biochemical engineering. The biochemical engineering minor provides students with additional training in this growing field beyond their traditional coursework. Students will gain the basic knowledge of the biological sciences and design as applied to bioreactor engineering and downstream processing.

The influence of the biological sciences in all academic disciplines within the sciences and engineering continues to expand. Any student may pursue a minor in biochemical engineering.

### Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

### Minor Requirements

#### Biochemical Engineering Courses

##### Biology I

[BIOL 1011](#) - General Biology I [LE CAT4, NAT SCI] (5.0 cr)

##### Chemistry I with lab

[CHEM 1153](#) - General Chemistry I [LE CAT5, NAT SCI] (4.0 cr)

[CHEM 1154](#) - General Chemistry Lab I [LE CAT4, NAT SCI] (1.0 cr)

##### Chemistry II with lab

[CHEM 1155](#) - General Chemistry II (4.0 cr)

[CHEM 1156](#) - General Chemistry Lab II (1.0 cr)

##### Organic Chemistry I with lab

[CHEM 2541](#) - Organic Chemistry I (3.0 cr)

[CHEM 2543](#) - Organic Chemistry I Laboratory (1.0 cr)

##### Organic Chemistry II with lab

[CHEM 2542](#) - Organic Chemistry II (3.0 cr)

[CHEM 2544](#) - Organic Chemistry II Laboratory (1.0 cr)

##### Biochemistry

[CHEM 3322](#) - Biochemistry (3.0 cr)

[CHEM 3324](#) - Biochemistry Laboratory (1.0 cr)

or [CHEM 4351](#) - Biochemistry I (3.0 cr)

[CHEM 4363](#) - Biochemistry Laboratory (2.0 cr)

##### Math

[MATH 1296](#) - Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)

or [MATH 1596](#) - Honors: Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)

[MATH 1297](#) - Calculus II [LOGIC & QR] (5.0 cr)

or [MATH 1597](#) - Honors: Calculus II [LOGIC & QR] (5.0 cr)

##### Engineering

[CHE 2111](#) - Material and Energy Balances (3.0 cr)

##### Biochemical Engineering I & II

[CHE 4601](#) - Biochemical Engineering I (3.0 cr)

[CHE 4701](#) - Biochemical Engineering II (3.0 cr)

or [CHE 5701](#) - Biochemical Engineering II (3.0 cr)

### Duluth Campus

## Biochemistry B.A.

*Chemistry and Biochemistry*

### Swenson College of Science and Engineering

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 120
- Required credits within the major: 68 to 70
- Degree: Bachelor of Arts

Biochemistry is the study of chemical reactions and processes at the molecular level that sustain life. This field is both a life science and a chemical science, exploring the chemistry of living organisms and the molecular basis for the processes that occur in living cells. The Department of Chemistry and Biochemistry provides classroom and laboratory learning opportunities and research experiences across the discipline to meet the needs of students in pre-professional programs, as well as those of student who wish to pursue careers or graduate studies in biochemistry and related disciplines.

Students who complete the BA in biochemistry do so because it is a field that complements areas such as law, library science, journalism, public relations, sale, or education. The major also provides a strong foundation for students planning on attending professional schools, such as medical, dental or pharmacy school, while providing curricular flexibility to complete professional school prerequisites requirements. BA students are encouraged to participate in undergraduate research.

### Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

### Admission Requirements

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

#### Required prerequisites

##### Introductory Requirement (1 cr)

Transfer students with 24 or more credits and current students who change from a BS degree or change colleges may request to be waived from this requirement. New first-year students with 24 or more PSEO credits may request to be waived from this requirement. [UST 1000](#) - UMD Seminar (1.0 - 2.0 cr)

### General Requirements

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

### Program Requirements

A minor or second major in a different subject is required. A minor in chemistry cannot be declared with the BA in biochemistry.

**Advanced Writing (3 cr)**

WRIT 31xx Adv Writing (3 cr)

**Biology (16 cr)**

BIOL 1011 - General Biology I [LE CAT4, NAT SCI] (5.0 cr)

BIOL 1012 - General Biology II [SUSTAIN] (5.0 cr)

BIOL 3100 - Cell Biology (3.0 cr)

BIOL 2201 - Genetics (3.0 cr)

**Chemistry (30 cr)**

**Chemistry I**

CHEM 1173 - General Chemistry I for Majors [NAT SCI] (4.0 cr)

CHEM 1174 - General Chemistry I Lab for Majors [NAT SCI] (1.0 cr)

**Chemistry II**

CHEM 1175 - General Chemistry II for Majors (4.0 cr)

CHEM 1176 - General Chemistry II Lab for Majors (1.0 cr)

**Organic Chemistry**

CHEM 2541 - Organic Chemistry I (3.0 cr)

CHEM 2543 - Organic Chemistry I Laboratory (1.0 cr)

CHEM 2542 - Organic Chemistry II (3.0 cr)

CHEM 2544 - Organic Chemistry II Laboratory (1.0 cr)

**Biochemistry**

CHEM 4351 - Biochemistry I (3.0 cr)

CHEM 4363 - Biochemistry Laboratory (2.0 cr)

CHEM 4352 - Biochemistry II (3.0 cr)

**Analytical Chemistry**

Students may also take CHEM 2242 Analytical Chemistry in Poland

CHEM 2212 - Environmental Chemistry [NAT SCI, SUSTAIN] (4.0 cr)

or CHEM 2222 - Quantitative Analysis (3.0 cr)

CHEM 2223 - Quantitative Analysis Laboratory (1.0 cr)

**Mathematics (8 - 10 cr)**

MATH 1290 - Calculus for the Natural Sciences [LE CAT2, LOGIC & QR] (5.0 cr)

or MATH 1296 - Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)

or MATH 1596 - Honors: Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)

MATH 1297 - Calculus II [LOGIC & QR] (5.0 cr)

or MATH 1597 - Honors: Calculus II [LOGIC & QR] (5.0 cr)

or STAT 2411 - Statistical Methods [LE CAT2, LOGIC & QR] (3.0 cr)

or STAT 3611 - Introduction to Probability and Statistics (4.0 cr)

**Physics (10 cr)**

**Physics I**

**Physics I Course**

PHYS 1001 - Introduction to Physics I [LE CAT4, NAT SCI] (5.0 cr)

or PHYS 2013 - General Physics I [LE CAT5, NAT SCI] (4.0 cr)

or PHYS 2017 - Honors: General Physics I [NAT SCI] (4.0 cr)

**Physics I Lab**

Students who take PHYS 2013 or 2017 MUST take PHYS 2014 to complete the Physics I requirement.

Students who take PHYS 1001 DO NOT have to take PHYS 2014.

PHYS 2014 - General Physics Lab I [NAT SCI] (1.0 cr)

**Physics II**

PHYS 1002 - Introduction to Physics II (5.0 cr)

PHYS 2015 - General Physics II (4.0 cr)

or PHYS 2018 - Honors General Physics II (4.0 cr)

PHYS 2016 - General Physics Lab II (1.0 cr)

### Duluth Campus

## Biochemistry B.S.

*Chemistry and Biochemistry*

### Swenson College of Science and Engineering

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 120
- Required credits within the major: 86 to 91
- Degree: Bachelor of Science

Biochemistry is the study of life at the molecular level. This field is both a life science and a chemical science, exploring the chemistry of living organisms and the molecular basis for the processes that occur in living cells. The Department of Chemistry and Biochemistry provides classroom and laboratory learning opportunities and research experiences across the discipline to meet the needs of students in engineering, liberal arts, and pre-professional programs, as well as those of students who wish to pursue careers or graduate studies in chemistry or related disciplines.

Honors requirements: The Department of Chemistry and Biochemistry honors program helps outstanding biochemistry and molecular biology majors become competent, independent research workers, encourages student interest in the discipline, and aids in the transition from student to working scientist. Qualified majors may apply after the first semester of their sophomore year. Participants choose a research adviser and complete two semesters on a jointly developed project. Written reports and an oral presentation of the research are also required.

### Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

### Admission Requirements

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

### General Requirements

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

### Program Requirements

1. A minor or second major in a different subject is required.

A minor in chemistry or BA biochemistry major cannot be declared with the BS biochemistry/molecular biology (BMB).

The BA chemistry may be declared as an additional degree with the biochemistry BS. However, this combination does not satisfy the requirement for a minor or a second major in a different subject.

The biochemistry BS and BS chemistry may be declared. This combination satisfies the requirement of a minor or second major in a

different subject.

2. Students earning a BS degree who wish to have their degree certified by the American Chemical Society must complete at least 130 hours of additional laboratory work through participation in undergraduate research with a comprehensive written report and/or through additional chemistry laboratory courses.

### Year One (30 cr)

High school algebra and high school chemistry are required for CHEM 1173/1174.

This schedule presupposes placement into MATH 1296.

[BIOL 1011](#) - General Biology I [LE CAT4, NAT SCI] (5.0 cr)

[BIOL 1012](#) - General Biology II [SUSTAIN] (5.0 cr)

#### Chemistry I

[CHEM 1173](#) - General Chemistry I for Majors [NAT SCI] (4.0 cr)

[CHEM 1174](#) - General Chemistry I Lab for Majors [NAT SCI] (1.0 cr)

#### Chemistry II

[CHEM 1175](#) - General Chemistry II for Majors (4.0 cr)

[CHEM 1176](#) - General Chemistry II Lab for Majors (1.0 cr)

#### Math

[MATH 1296](#) - Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)

or [MATH 1596](#) - Honors: Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)

[MATH 1297](#) - Calculus II [LOGIC & QR] (5.0 cr)

or [MATH 1597](#) - Honors: Calculus II [LOGIC & QR] (5.0 cr)

### Year Two (25-26 cr)

[BIOL 3100](#) - Cell Biology (3.0 cr)

[CHEM 2541](#) - Organic Chemistry I (3.0 cr)

[CHEM 2542](#) - Organic Chemistry II (3.0 cr)

[CHEM 2543](#) - Organic Chemistry I Laboratory (1.0 cr)

[CHEM 2544](#) - Organic Chemistry II Laboratory (1.0 cr)

or [CHEM 2545](#) - Organic Chemistry II Laboratory for B.S. Chemistry Majors (2.0 cr)

#### Analytical Chemistry

[CHEM 2222](#) - Quantitative Analysis (3.0 cr)

[CHEM 2223](#) - Quantitative Analysis Laboratory (1.0 cr)

or [CHEM 2242](#) - Analytical Chemistry and the Environment in Poland (4.0 cr)

#### Physics

[PHYS 2013](#) - General Physics I [LE CAT5, NAT SCI] (4.0 cr)

or [PHYS 2017](#) - Honors: General Physics I [NAT SCI] (4.0 cr)

[PHYS 2014](#) - General Physics Lab I [NAT SCI] (1.0 cr)

[PHYS 2015](#) - General Physics II (4.0 cr)

or [PHYS 2018](#) - Honors General Physics II (4.0 cr)

[PHYS 2016](#) - General Physics Lab II (1.0 cr)

### Year Three (20 - 24 cr)

[BIOL 2201](#) - Genetics (3.0 cr)

[BIOL 4231](#) - Molecular Biology (3.0 cr)

[BIOL 5232](#) - Molecular Biology Laboratory (2.0 cr)

[CHEM 4351](#) - Biochemistry I (3.0 cr)

[CHEM 4352](#) - Biochemistry II (3.0 cr)

[CHEM 4363](#) - Biochemistry Laboratory (2.0 cr)

#### Physical Chemistry

It is recommended students take CHEM 4634 and 4633

[CHEM 4634](#) - Physical Chemistry (3.0 cr)

[CHEM 4633](#) - Physical Chemistry Laboratory (1.0 cr)

or [CHEM 4641](#) - Physical Chemistry I (3.0 cr)

[CHEM 4643](#) - Physical Chemistry Laboratory I (1.0 cr)

[CHEM 4642](#) - Physical Chemistry II (3.0 cr)

[CHEM 4644](#) - Physical Chemistry Laboratory II (1.0 cr)

### Year Four (5 cr)

[CHEM 3432](#) - Descriptive Inorganic Chemistry (3.0 cr)

[CHEM 4184](#) - Undergraduate Seminar I (1.0 cr)

[CHEM 4185](#) - Undergraduate Seminar II (1.0 cr)

### Required Elective (3 cr)

Take 3 or more credit(s) from the following:

- CHEM 4242 - Instrumental Analysis (3.0 cr)
- CHEM 4373 - Physical Biochemistry (3.0 cr)
- CHEM 4436 - Inorganic Chemistry (3.0 cr)

**Advanced Writing (3 cr)**

WRIT 31xx Advanced Writing

## Duluth Campus

# Biology B.A.

Biology

## Swenson College of Science and Engineering

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 120
- Required credits within the major: 70 to 82
- Degree: Bachelor of Arts

Biology has long been recognized as basic to environment, agriculture, and medicine. Because the topics studied by biologists range from sub-cellular particles to global environmental concerns, and because of the variety of living organisms and the various ways of studying them, many specialties have developed. The B.A. program provides majors with the necessary background to pursue careers in the diverse areas of life science, including health care professions, and the many careers that provide the interface between science and society.

## Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

## Admission Requirements

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

### Required prerequisites

#### Introductory Requirement (1 cr)

Transfer students with 24 or more credits and current students who change from a BS degree or change colleges may request to be waived from this requirement. New first-year students with 24 or more PSEO credits may request to be waived from this requirement. [UST 1000](#) - UMD Seminar (1.0 - 2.0 cr)

## General Requirements

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

## Program Requirements

1. The human biology sub-plan requires a minor or second major from another area of study outside the Department of Biology with the exception of the natural history minor. The life science sub-plan requires a minor or second major from a non-SCSE program.

**Biology BA Core Courses (18 - 21 cr)****General Biology I**

[BIOL 1013](#) - General Biology I for Science and Engineering majors [NAT SCI] (5.0 cr)

**General Biology II**

[BIOL 1012](#) - General Biology II [SUSTAIN] (5.0 cr)

**Additional Biology**

[BIOL 2201](#) - Genetics (3.0 cr)

[BIOL 3987](#) - Communication in Biology (2.0 cr)

**Ecology**

[BIOL 2410](#) - Ecology and Evolution (3.0 cr)

or [BIOL 2801](#) - General Ecology (3.0 cr)

[BIOL 3401](#) - Evolution [SUSTAIN] (3.0 cr)

**Chemistry (10 cr)**

[CHEM 1113](#) - Introduction to General, Organic, and Biological Chemistry I [LE CAT4, NAT SCI] (5.0 cr)

[CHEM 1114](#) - Introduction to General, Organic, and Biological Chemistry II (5.0 cr)

or [CHEM 1153](#) - General Chemistry I [LE CAT5, NAT SCI] (4.0 cr)

[CHEM 1154](#) - General Chemistry Lab I [LE CAT4, NAT SCI] (1.0 cr)

[CHEM 1155](#) - General Chemistry II (4.0 cr)

[CHEM 1156](#) - General Chemistry Lab II (1.0 cr)

**Math and Statistics (7 - 9 cr)****Math**

[MATH 1160](#) - Finite Mathematics and Introduction to Calculus [LE CAT2, LOGIC & QR] (5.0 cr)

or [MATH 1250](#) - Precalculus Analysis [LE CAT2, LOGIC & QR] (4.0 cr)

or [MATH 1290](#) - Calculus for the Natural Sciences [LE CAT2, LOGIC & QR] (5.0 cr)

or [MATH 1296](#) - Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)

or [MATH 1596](#) - Honors: Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)

**Statistics**

[ECON 2030](#) - Applied Statistics for Business and Economics [LOGIC & QR] (3.0 cr)

or [PSY 3020](#) - Statistical Methods (4.0 cr)

or [STAT 1411](#) - Introduction to Statistics [LE CAT2, LOGIC & QR] (3.0 cr)

or STAT 24xx or above (3 - 4 cr)

**Advanced Writing Requirement (3 cr)**

[WRIT 3150](#) - Advanced Writing: Science (3.0 cr)

## Program Sub-plans

Students are required to complete one of the following sub-plans.

### Human Biology

The biology bachelor of arts in human biology is designed to provide the breadth and depth of knowledge required for students entering human health care professions including nursing, dentistry, pharmacy, physician assistant and the diverse array of health care technician programs. The core courses in biology, chemistry, physics, and mathematics provide a strong foundation for more specialized upper division coursework. Students will complete their degree with upper division electives from the life, physical, and social sciences and humanities to focus their degree towards their professional goals. Please visit the Biology Department webpage <http://www.d.umn.edu/biology/> for example plans.

**Human Biology Core (13 cr)**

[BIOL 3100](#) - Cell Biology (3.0 cr)

[BIOL 3771](#) - Human Anatomy (4.0 cr)

[BIOL 3772](#) - Human Physiology (4.0 cr)

[BIOL 2102](#) - Cell Biology Laboratory (2.0 cr)

or [BIOL 2202](#) - Genetics Laboratory (2.0 cr)

**Biology BA Electives (15 cr)**

Between the biology electives and additional electives, at least one biology lab course must be included.

**Cell Biology (CELL)**

[BIOL 4361](#), and [5232](#) carry a lab component

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

• [BIOL 3512](#) - Biology of HIV and AIDS (3.0 cr)

• [BIOL 3101](#) - Molecular Biology of Cancer (3.0 cr)

• [BIOL 3102](#) - Cell Biology of Human Disease (3.0 cr)

• [BIOL 3301](#) - Patterning the Embryo (3.0 cr)



- BIOL 4199 - Frontiers in Cell Biology (2.0 cr)
- BIOL 4231 - Molecular Biology (3.0 cr)
- BIOL 4361 - Developmental Biology (3.0 cr)
- BIOL 4511 - Medical Microbiology (3.0 cr)
- BIOL 4631 - Plant Cell and Molecular Biology (3.0 cr)
- BIOL 5232 - Molecular Biology Laboratory (2.0 cr)
- BIOL 5511 - Virology (3.0 cr)
- BMS 5545 - Immunology (3.0 cr)

**Social Science, Business and Humanities (SBH)**

Must be from at least 2 different designators. There are no courses in this group that carry a lab component.

Take 3 or more course(s) totaling 9 or more credit(s) from the following:

- ANTH 1602 - Biological Anthropology and Archaeology [LE CAT7, LEIP CAT07, SOC SCI] (4.0 cr)
- ECON 1003 - Economics and Society [LE CAT8, SOC SCI] (3.0 cr)
- HIST 2350 - Nutrition and American History [HUMANITIES, SUSTAIN] (4.0 cr)
- MGTS 1101 - Introduction to Business [LE CAT8] (3.0 cr)
- PHIL 1003 - Ethics and Society [LE CAT8, LEIP CAT08, HUMANITIES, CDIVERSITY] (3.0 cr)
- PSY 1003 - General Psychology [LE CAT6, SOC SCI] (4.0 cr)
- PSY 2021 - Developmental Psychology [LE CAT6, LECD CAT06, SOC SCI, CDIVERSITY] (4.0 cr)
- PSY 3121 - Abnormal Psychology (4.0 cr)
- SOC 1101 - Introduction to Sociology [LE CAT6, LECD CAT06, SOC SCI, CDIVERSITY] (4.0 cr)

**Additional Electives (10 cr)**

Between the Biology BA Electives and Additional Electives, at least one Biology Lab course must be included. Courses cannot be used to fulfill more than 1 requirement within the major.

Take 10 or more credit(s) from the following:

**Electives**

BIOL 2571 carries a lab component.

Take 0 or more course(s) from the following:

- ANTH 2xxx
- ANTH 3xxx
- ANTH 4xxx
- BIOL 2571 - Microbiology for Human Health (4.0 cr)
- BMS 5501 - Neurobiochemistry (2.0 cr)
- BMS 5555 - Molecular Pathogenesis: Current Concepts (3.0 cr)
- BMS 5601 - Physiology of Organ Systems I (4.0 cr)
- BMS 5602 - Physiology of Organ Systems II (2.0 cr)
- CHEM 2541 - Organic Chemistry I (3.0 cr)
- CHEM 2542 - Organic Chemistry II (3.0 cr)
- CHEM 2543 - Organic Chemistry I Laboratory (1.0 cr)
- CHEM 2544 - Organic Chemistry II Laboratory (1.0 cr)
- CHEM 3322 - Biochemistry (3.0 cr)
- CHEM 3324 - Biochemistry Laboratory (1.0 cr)
- PSY 3xxx
- PSY 4xxx
- PSY 5xxx
- SOC 2xxx
- SOC 3xxx
- SOC 4xxx

**Physics I Electives**

Take 0 or more course(s) from the following:

- PHYS 1001 - Introduction to Physics I [LE CAT4, NAT SCI] (5.0 cr)
- or PHYS 2013 - General Physics I [LE CAT5, NAT SCI] (4.0 cr)  
with PHYS 2014 - General Physics Lab I [NAT SCI] (1.0 cr)
- or PHYS 2017 - Honors: General Physics I [NAT SCI] (4.0 cr)  
with PHYS 2014 - General Physics Lab I [NAT SCI] (1.0 cr)

**Physics II Electives**

Take 0 or more course(s) from the following:

- PHYS 1002 - Introduction to Physics II (5.0 cr)
- or PHYS 2015 - General Physics II (4.0 cr)  
with PHYS 2016 - General Physics Lab II (1.0 cr)
- or PHYS 2018 - Honors General Physics II (4.0 cr)  
with PHYS 2014 - General Physics Lab I [NAT SCI] (1.0 cr)

**Anatomy, Morphology, Physiology Electives (AMP)**

BIOL 3703 and 4604 carry a lab component

Take 0 or more course(s) from the following:

- BIOL 3703 - Animal Physiology (3.0 cr)



- BIOL 4604 - Plant Physiology (4.0 cr)
- BIOL 5772 - Neural Systems and Behavior (3.0 cr)

**•Cell Biology Electives (CELL)**

BIOL 4361 and 5232 carry a lab component

Take 0 or more course(s) from the following:

- BIOL 3512 - Biology of HIV and AIDS (3.0 cr)
- BIOL 3101 - Molecular Biology of Cancer (3.0 cr)
- BIOL 3102 - Cell Biology of Human Disease (3.0 cr)
- BIOL 3301 - Patterning the Embryo (3.0 cr)
- BIOL 4199 - Frontiers in Cell Biology (2.0 cr)
- BIOL 4361 - Developmental Biology (3.0 cr)
- BIOL 4511 - Medical Microbiology (3.0 cr)
- BIOL 4631 - Plant Cell and Molecular Biology (3.0 cr)
- BIOL 5511 - Virology (3.0 cr)
- BMS 5545 - Immunology (3.0 cr)

**•Diversity and Taxonomy Electives (DT)**

All courses in this category carry a lab component

Take 0 or more course(s) from the following:

- BIOL 3502 - General Microbiology (4.0 cr)
- BIOL 3601 - Plant Diversity (3.0 cr)
- BIOL 3603 - Plant Taxonomy (3.0 cr)
- BIOL 3701 - Animal Diversity (4.0 cr)
- BIOL 4731 - Entomology (3.0 cr)
- BIOL 4761 - Ichthyology (3.0 cr)
- BIOL 4763 - Ornithology (3.0 cr)
- BIOL 4764 - Mammalogy (3.0 cr)
- BIOL 5515 - Microbial Diversity and Phylogeny (3.0 cr)

**•Ecology, Evolution & Behavior Electives (EEB)**

BIOL 3761, 3811 and 4839 carry a lab component.

Take 0 or more course(s) from the following:

- BIOL 3401 - Evolution [SUSTAIN] (3.0 cr)
- BIOL 3760 - Marine Biology (3.0 cr)
- BIOL 3761 - Field Studies in Marine Biology (4.0 cr)
- BIOL 3811 - Plant Ecology (4.0 cr)
- BIOL 3830 - Aquatic Food Webs (3.0 cr)
- BIOL 3835 - Freshwater Ecology (3.0 cr)
- BIOL 4233 - Genomics (3.0 cr)
- BIOL 4818 - Biotic Response to Climate Change (2.0 cr)
- BIOL 4839 - Coral Reef Field Studies (3.0 cr)
- BIOL 4850 - Evolution in Agriculture: Crops, Animals, Weeds, and Insects (3.0 cr)
- BIOL 4891 - Animal Behavior (2.0 cr)
- BIOL 4992 - Senior Seminar: Classic Readings in Natural History (1.0 cr)
- BIOL 5240 - Ecological Genetics (3.0 cr)
- BIOL 5777 - Plankton Biology (2.0 cr)
- BIOL 5801 - Microbial Ecology (2.0 cr)
- BIOL 5805 - Fisheries Ecology (3.0 cr)
- BIOL 5808 - Landscape Ecology: Theory and Application (3.0 cr)
- BIOL 5833 - Stream Ecology (3.0 cr)
- BIOL 5861 - Lake Ecology (3.0 cr)
- BIOL 5865 - Conservation Biology (2.0 cr)
- BIOL 5870 - Wetland Ecology (3.0 cr)

**•Supplemental Biology Electives (SBE)**

These courses can be used as additional electives only if they have not been used in the core. 2 cr of SSP 3002 TA Practicum (in Biology) may be substituted for BIOL 3993 as an upper division elective with departmental approval. A maximum of 2 cr BIOL 3993, a maximum of 4 cr BIOL 3994 and a maximum of 1 cr BIOL 3996 may be applied to the degree. BIOL 2102, 2202 and 2802 carry a lab component.

Take 0 or more course(s) from the following:

- BIOL 2102 - Cell Biology Laboratory (2.0 cr)
- BIOL 2202 - Genetics Laboratory (2.0 cr)
- BIOL 2802 - Ecology Laboratory (2.0 cr)
- BIOL 3001 - Outreach to the K-12 Science Classroom (3.0 cr)
- BIOL 3993 - Laboratory Teaching Experience (1.0 - 2.0 cr)
- BIOL 3994 - Undergraduate Research (1.0 - 3.0 cr)
- BIOL 3996 - Internship in Biology (1.0 - 2.0 cr)
- BIOL 5001 - Teaching and Learning in the Life Sciences (1.0 cr)



**•Social Science, Business & Humanities Electives (SBH)**

Take 0 or more course(s) from the following:

- ANTH 1602** - Biological Anthropology and Archaeology [LE CAT7, LEIP CAT07, SOC SCI] (4.0 cr)
- ECON 1003** - Economics and Society [LE CAT8, SOC SCI] (3.0 cr)
- HIST 2350** - Nutrition and American History [HUMANITIES, SUSTAIN] (4.0 cr)
- MGTS 1101** - Introduction to Business [LE CAT8] (3.0 cr)
- PHIL 1003** - Ethics and Society [LE CAT8, LEIP CAT08, HUMANITIES, CDIVERSITY] (3.0 cr)
- PSY 1003** - General Psychology [LE CAT6, SOC SCI] (4.0 cr)
- PSY 2021** - Developmental Psychology [LE CAT6, LECD CAT06, SOC SCI, CDIVERSITY] (4.0 cr)
- PSY 3121** - Abnormal Psychology (4.0 cr)
- SOC 1101** - Introduction to Sociology [LE CAT6, LECD CAT06, SOC SCI, CDIVERSITY] (4.0 cr)

**Life Sciences**

The life sciences sub-plan is for students whose educational and career objectives can best be met by integrating a strong biology background with courses from multiple departments in order to complete a second major or minor outside the Swenson College of Science and Engineering. Please visit the Biology Department webpage <http://www.d.umn.edu/biology/> for example plans.

**Life Science Core Courses (5 cr)**

- BIOL 2110** - Cell and Molecular Biology (3.0 cr)  
or **BIOL 3100** - Cell Biology (3.0 cr)
- BIOL 2102** - Cell Biology Laboratory (2.0 cr)  
or **BIOL 2202** - Genetics Laboratory (2.0 cr)  
or **BIOL 2802** - Ecology Laboratory (2.0 cr)

**Biology BA Elective Categories (26 cr)**

Courses cannot be used to fulfill more than 1 requirement in the major. Must include a minimum of 17 credits BIOL 3xxx or above and 3 biology lab courses.

Take 26 or more credit(s) from the following:

**Anatomy, Morphology, Physiology (AMP)**

BIOL 3703, 3771, 3772 and 4604 carry a lab component.

Take 0 or more course(s) from the following:

- BIOL 3703** - Animal Physiology (3.0 cr)
- BIOL 3771** - Human Anatomy (4.0 cr)
- BIOL 3772** - Human Physiology (4.0 cr)
- BIOL 4604** - Plant Physiology (4.0 cr)
- BIOL 5772** - Neural Systems and Behavior (3.0 cr)

**Cell Biology (CELL)**

BIOL 4361, and 5232 carry a lab component.

Take 1 or more course(s) totaling 3 or more credit(s) from the following:

- BIOL 3512** - Biology of HIV and AIDS (3.0 cr)
- BIOL 3100** - Cell Biology (3.0 cr)
- BIOL 3101** - Molecular Biology of Cancer (3.0 cr)
- BIOL 3102** - Cell Biology of Human Disease (3.0 cr)
- BIOL 3301** - Patterning the Embryo (3.0 cr)
- BIOL 4199** - Frontiers in Cell Biology (2.0 cr)
- BIOL 4361** - Developmental Biology (3.0 cr)
- BIOL 4511** - Medical Microbiology (3.0 cr)
- BIOL 4631** - Plant Cell and Molecular Biology (3.0 cr)
- BIOL 5232** - Molecular Biology Laboratory (2.0 cr)
- BIOL 5511** - Virology (3.0 cr)
- BMS 5545** - Immunology (3.0 cr)

**Diversity and Taxonomy (DT)**

All courses in this category carry a lab component.

Take 1 or more course(s) totaling 3 or more credit(s) from the following:

- BIOL 3502** - General Microbiology (4.0 cr)
- BIOL 3601** - Plant Diversity (3.0 cr)
- BIOL 3603** - Plant Taxonomy (3.0 cr)
- BIOL 3701** - Animal Diversity (4.0 cr)
- BIOL 4731** - Entomology (3.0 cr)
- BIOL 4761** - Ichthyology (3.0 cr)
- BIOL 4763** - Ornithology (3.0 cr)
- BIOL 4764** - Mammalogy (3.0 cr)
- BIOL 5515** - Microbial Diversity and Phylogeny (3.0 cr)

**Ecology, Evolution and Behavior (EEB)**

BIOL 3761, 3811, and 4839 carry a lab component.



Take 1 or more course(s) totaling 3 or more credit(s) from the following:

- BIOL 3760 - Marine Biology (3.0 cr)
- BIOL 3761 - Field Studies in Marine Biology (4.0 cr)
- BIOL 3401 - Evolution [SUSTAIN] (3.0 cr)
- BIOL 3811 - Plant Ecology (4.0 cr)
- BIOL 3830 - Aquatic Food Webs (3.0 cr)
- BIOL 3835 - Freshwater Ecology (3.0 cr)
- BIOL 4233 - Genomics (3.0 cr)
- BIOL 4818 - Biotic Response to Climate Change (2.0 cr)
- BIOL 4839 - Coral Reef Field Studies (3.0 cr)
- BIOL 4850 - Evolution in Agriculture: Crops, Animals, Weeds, and Insects (3.0 cr)
- BIOL 4891 - Animal Behavior (2.0 cr)
- BIOL 4992 - Senior Seminar: Classic Readings in Natural History (1.0 cr)
- BIOL 5240 - Ecological Genetics (3.0 cr)
- BIOL 5777 - Plankton Biology (2.0 cr)
- BIOL 5801 - Microbial Ecology (2.0 cr)
- BIOL 5805 - Fisheries Ecology (3.0 cr)
- BIOL 5808 - Landscape Ecology: Theory and Application (3.0 cr)
- BIOL 5833 - Stream Ecology (3.0 cr)
- BIOL 5861 - Lake Ecology (3.0 cr)
- BIOL 5865 - Conservation Biology (2.0 cr)
- BIOL 5870 - Wetland Ecology (3.0 cr)

#### **Supplemental Biology Electives (SBE)**

These courses can be used as additional electives only if they have not been used in the core. 2 cr of SSP 3002 TA Practicum (in Biology) may be substituted for BIOL 3993 as an upper division elective with departmental approval. A maximum of 2 cr BIOL 3993, a maximum of 4 cr BIOL 3994 and a maximum of 1 cr BIOL 3996 may be applied to the degree. BIOL 2102, 2202 and 2802 carry a lab component.

Take 0 or more course(s) from the following:

- BIOL 2102 - Cell Biology Laboratory (2.0 cr)
- BIOL 2202 - Genetics Laboratory (2.0 cr)
- BIOL 2801 - General Ecology (3.0 cr)
- BIOL 2802 - Ecology Laboratory (2.0 cr)
- BIOL 3001 - Outreach to the K-12 Science Classroom (3.0 cr)
- BIOL 3993 - Laboratory Teaching Experience (1.0 - 2.0 cr)
- BIOL 3994 - Undergraduate Research (1.0 - 3.0 cr)
- BIOL 3996 - Internship in Biology (1.0 - 2.0 cr)
- BIOL 5001 - Teaching and Learning in the Life Sciences (1.0 cr)

#### **Courses from programs outside of SCSE**

Must be from at least 2 different designators, 3xxx and above. May take non-SCSE course 1xxx, 2xxx upon departmental approval. Take 3 or more courses totaling 9 or more credits within these parameters.

### **Duluth Campus**

## **Biology B.S.**

*Biology*

### **Swenson College of Science and Engineering**

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 120
- Required credits within the major: 80 to 92
- Degree: Bachelor of Science

The BS in biology offers preparation for graduate school and a sound basis for professional training in biological and health sciences. Biology is a broad field, and students can tailor their programs to fit personal interests or career aspirations.

The two subplans: genetics, cell and development, & ecology, evolution and behavior, are the two major emphases in the study and practice of biology and choice of upper division electives gives students the flexibility to further focus their degree programs.

The Department of Biology encourages students to develop as active scholars and to participate in undergraduate research. The degree involves faculty from multiple departments in the Swenson College of Science and Engineering and the UM Medical School.

### **Program Delivery**

This program is available:

- via classroom (the majority of instruction is face-to-face)

### **Admission Requirements**

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

### **General Requirements**

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

### **Program Requirements**

1. A minor or second major from another area of study outside the Department of Biology with the exception of the natural history minor.

This schedule presupposes placement into BIOL 1013, CHEM 1153, 1154 which require the prerequisites of high school chemistry and a math ACT of 24 or college algebra; and calculus I which requires the prerequisite of a math ACT of 27 or precalculus.

#### **Biology BS Core Requirements (15 cr)**

[BIOL 1013](#) - General Biology I for Science and Engineering majors [NAT SCI] (5.0 cr)

BIOL 1012 - General Biology II [SUSTAIN] (5.0 cr)  
 BIOL 2201 - Genetics (3.0 cr)  
 BIOL 3987 - Communication in Biology (2.0 cr)

#### Courses From Other Programs (30 cr)

##### Advanced Writing

WRIT 3150 - Advanced Writing: Science (3.0 cr)

##### Calculus I

MATH 1290 - Calculus for the Natural Sciences [LE CAT2, LOGIC & QR] (5.0 cr)  
 or MATH 1296 - Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)  
 or MATH 1596 - Honors: Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)

##### General Chemistry

CHEM 1153 - General Chemistry I [LE CAT5, NAT SCI] (4.0 cr)  
 CHEM 1154 - General Chemistry Lab I [LE CAT4, NAT SCI] (1.0 cr)  
 CHEM 1155 - General Chemistry II (4.0 cr)  
 CHEM 1156 - General Chemistry Lab II (1.0 cr)

##### Organic Chemistry

CHEM 2541 - Organic Chemistry I (3.0 cr)  
 CHEM 2543 - Organic Chemistry I Laboratory (1.0 cr)

##### Physics I

PHYS 1001 - Introduction to Physics I [LE CAT4, NAT SCI] (5.0 cr)  
 PHYS 2013 - General Physics I [LE CAT5, NAT SCI] (4.0 cr)  
 with PHYS 2014 - General Physics Lab I [NAT SCI] (1.0 cr)  
 or PHYS 2017 - Honors: General Physics I [NAT SCI] (4.0 cr)  
 with PHYS 2014 - General Physics Lab I [NAT SCI] (1.0 cr)

##### Statistics

Take 3 or more credit(s) from the following:

- STAT 2xxx
- STAT 3xxx
- STAT 4xxx
- STAT 5xxx

## Program Sub-plans

Students are required to complete one of the following sub-plans.

### Ecology, Evolution and Behavior

Students in the ecology, evolution and behavior (EEB) sub-plan study the origin and maintenance of biodiversity and the interrelationship of organisms with each other and their physical environment. It prepares students for a wide range of careers including teaching, working on environmental problems for government agencies an industry, and for research positions at university and other institutions. It also provides excellent preparation for graduate school or professional programs including medicine and veterinary medicine. Student in the EEV sub-plan will choose from electives in the ecology, evolution and behavior and diversity and taxonomy categories. These courses include inquiry based activities that explore the ecology, evolution and behavior of the diversity of life from microbes to moose.

#### Ecology, Evolution, & Behavior Core Courses (11 cr)

BIOL 2801 - General Ecology (3.0 cr)  
 BIOL 3401 - Evolution [SUSTAIN] (3.0 cr)  
 BIOL 2110 - Cell and Molecular Biology (3.0 cr)  
 or BIOL 3100 - Cell Biology (3.0 cr)  
 BIOL 2102 - Cell Biology Laboratory (2.0 cr)  
 or BIOL 2202 - Genetics Laboratory (2.0 cr)  
 or BIOL 2802 - Ecology Laboratory (2.0 cr)

#### Chemistry Requirements (3 - 4 cr)

CHEM 2212 - Environmental Chemistry [NAT SCI, SUSTAIN] (4.0 cr)  
 or GEOL 3710 - Introduction to Geochemistry (3.0 cr)  
 or CHEM 2222 - Quantitative Analysis (3.0 cr)  
 with CHEM 2223 - Quantitative Analysis Laboratory (1.0 cr)  
 or CHEM 2542 - Organic Chemistry II (3.0 cr)  
 with CHEM 2544 - Organic Chemistry II Laboratory (1.0 cr)

#### Quantitative Reasoning Requirement (3 -5 cr)

BIOL 5809 can only be used if not taken for upper division biology credit.

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

- BIOL 5809 - Ecological Statistics (3.0 cr)



- CS 1121 - Introduction to Programming in Visual BASIC.NET [LE CAT3, LOGIC & QR] (3.0 cr)
- CS 1141 - Introduction to Programming in C# (3.0 cr)
- CS 1411 - Introduction to Programming in Matlab (4.0 cr)
- MATH 1297 - Calculus II [LOGIC & QR] (5.0 cr)
- MATH 1597 - Honors: Calculus II [LOGIC & QR] (5.0 cr)
- MATH 5233 - Mathematical Foundations of Bioinformatics (3.0 cr)
- STAT 3612 - Introduction to Probability and Statistics II (3.0 cr)
- STAT 4060 - Introduction to Biostatistics (3.0 cr)
- STAT 5411 - Analysis of Variance (3.0 cr)
- PHYS 1002 - Introduction to Physics II (5.0 cr)
  - or PHYS 2015 - General Physics II (4.0 cr)
    - with PHYS 2016 - General Physics Lab II (1.0 cr)
  - or PHYS 2018 - Honors General Physics II (4.0 cr)
    - with PHYS 2016 - General Physics Lab II (1.0 cr)

**Upper Division Biology BS Electives (18 cr)**

Must include at least 2 courses 4xxx or above and 3 laboratory courses.

Take 18 or more credit(s) from the following categories; a combination of credits are needed from both required electives - parts A and B. Supplemental biology electives may be used to complete the outstanding credits toward the total credits needed.

**Required Electives - Part A**

Courses must be from at least 2 different categories.

Take 4 or more course(s) from the following:

**Diversity and Taxonomy (DT)**

All courses in this list carry a lab component.

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

- BIOL 3502 - General Microbiology (4.0 cr)
- BIOL 3601 - Plant Diversity (3.0 cr)
- BIOL 3603 - Plant Taxonomy (3.0 cr)
- BIOL 3701 - Animal Diversity (4.0 cr)
- BIOL 4731 - Entomology (3.0 cr)
- BIOL 4761 - Ichthyology (3.0 cr)
- BIOL 4763 - Ornithology (3.0 cr)
- BIOL 4764 - Mammalogy (3.0 cr)
- BIOL 5515 - Microbial Diversity and Phylogeny (3.0 cr)

**Ecology, Evolution and Behavior (EEB)**

BIOL 3761, 3811, 4839, and 5833 carry a lab component.

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

- BIOL 3760 - Marine Biology (3.0 cr)
- BIOL 3761 - Field Studies in Marine Biology (4.0 cr)
- BIOL 3811 - Plant Ecology (4.0 cr)
- BIOL 3830 - Aquatic Food Webs (3.0 cr)
- BIOL 3835 - Freshwater Ecology (3.0 cr)
- BIOL 4233 - Genomics (3.0 cr)
- BIOL 4818 - Biotic Response to Climate Change (2.0 cr)
- BIOL 4839 - Coral Reef Field Studies (3.0 cr)
- BIOL 4850 - Evolution in Agriculture: Crops, Animals, Weeds, and Insects (3.0 cr)
- BIOL 4891 - Animal Behavior (2.0 cr)
- BIOL 4992 - Senior Seminar: Classic Readings in Natural History (1.0 cr)
- BIOL 5240 - Ecological Genetics (3.0 cr)
- BIOL 5777 - Plankton Biology (2.0 cr)
- BIOL 5801 - Microbial Ecology (2.0 cr)
- BIOL 5805 - Fisheries Ecology (3.0 cr)
- BIOL 5808 - Landscape Ecology: Theory and Application (3.0 cr)
- BIOL 5833 - Stream Ecology (3.0 cr)
- BIOL 5861 - Lake Ecology (3.0 cr)
- BIOL 5865 - Conservation Biology (2.0 cr)
- BIOL 5870 - Wetland Ecology (3.0 cr)

**Required Electives - Part B**

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

**Anatomy, Morphology, Physiology (AMP)**

All courses except BIOL 5772 carry a lab component.



Take 0 or more course(s) from the following:

- BIOL 3703 - Animal Physiology (3.0 cr)
- BIOL 3771 - Human Anatomy (4.0 cr)
- BIOL 3772 - Human Physiology (4.0 cr)
- BIOL 4604 - Plant Physiology (4.0 cr)
- BIOL 5772 - Neural Systems and Behavior (3.0 cr)

•**Cell Biology (CELL)**

BIOL 4361 and 5232 carry a lab component.

Take 0 or more course(s) from the following:

- BIOL 3100 - Cell Biology (3.0 cr)
- BIOL 3101 - Molecular Biology of Cancer (3.0 cr)
- BIOL 3102 - Cell Biology of Human Disease (3.0 cr)
- BIOL 3301 - Patterning the Embryo (3.0 cr)
- BIOL 3512 - Biology of HIV and AIDS (3.0 cr)
- BIOL 4199 - Frontiers in Cell Biology (2.0 cr)
- BIOL 4231 - Molecular Biology (3.0 cr)
- BIOL 4361 - Developmental Biology (3.0 cr)
- BIOL 4511 - Medical Microbiology (3.0 cr)
- BIOL 4631 - Plant Cell and Molecular Biology (3.0 cr)
- BIOL 5232 - Molecular Biology Laboratory (2.0 cr)
- BIOL 5511 - Virology (3.0 cr)
- BMS 5545 - Immunology (3.0 cr)

•**Supplemental Biology Electives (SBE) (Optional)**

These courses can be used as additional electives only if they have not been used in the core. 2 cr of SSP 3002 TA Practicum (in Biology) may be substituted for BIOL 3993 as an upper division elective with departmental approval. A maximum of 2 cr of BIOL 3993, a maximum of 4 cr of BIOL 3994 and a maximum of 1 cr BIOL 3996 may be applied to the degree. BIOL 2102, 2202 and 2802 carry a lab component.

Take 0 or more course(s) from the following:

- BIOL 2102 - Cell Biology Laboratory (2.0 cr)
- BIOL 2202 - Genetics Laboratory (2.0 cr)
- BIOL 2802 - Ecology Laboratory (2.0 cr)
- BIOL 3001 - Outreach to the K-12 Science Classroom (3.0 cr)
- BIOL 3993 - Laboratory Teaching Experience (1.0 - 2.0 cr)
- BIOL 3994 - Undergraduate Research (1.0 - 3.0 cr)
- BIOL 3996 - Internship in Biology (1.0 - 2.0 cr)
- BIOL 5001 - Teaching and Learning in the Life Sciences (1.0 cr)

**Genetics, Cell and Development**

The genetics, cell and development (GCD) subplan prepares students for graduate school and careers in cell biology, genetics, developmental biology, physiology, immunology, biotechnology, molecular biology and microbiology. It is also designed to prepare students for application to professional schools including medicine, dentistry, pharmacy and veterinary medicine. Students in the GCD subplan will choose at least 3 CELL electives exploring the structure and function of cells. Students will also incorporate courses from other elective categories to tailor their degrees to meet their goals.

**Core Courses (13 - 16 cr)**

- BIOL 3100 - Cell Biology (3.0 cr)
- BIOL 4231 - Molecular Biology (3.0 cr)
- BIOL 5232 - Molecular Biology Laboratory (2.0 cr)
- BIOL 2102 - Cell Biology Laboratory (2.0 cr)  
or BIOL 2202 - Genetics Laboratory (2.0 cr)
- BIOL 2410 - Ecology and Evolution (3.0 cr)  
or BIOL 2801 - General Ecology (3.0 cr)  
with BIOL 3401 - Evolution [SUSTAIN] (3.0 cr)

**Upper Division Biology BS Electives (14 cr)**

Must include at least 1 course 4xxx or above and 1 laboratory course.

Take 14 or more credit(s) from the following categories. Additional required electives or optional electives may be used to complete the outstanding credits toward the total credits needed.

**Required Electives**

Courses must be from at least 2 of the 3 categories.

Take 4 or more course(s) from the following:

**Cell Biology (CELL)**

BIOL 4361 and 5232 carry a lab component.

Take 0 or more course(s) from the following:

- BIOL 3512 - Biology of HIV and AIDS (3.0 cr)
- BIOL 3101 - Molecular Biology of Cancer (3.0 cr)
- BIOL 3102 - Cell Biology of Human Disease (3.0 cr)
- BIOL 3301 - Patterning the Embryo (3.0 cr)
- BIOL 4199 - Frontiers in Cell Biology (2.0 cr)
- BIOL 4361 - Developmental Biology (3.0 cr)
- BIOL 4511 - Medical Microbiology (3.0 cr)
- BIOL 4631 - Plant Cell and Molecular Biology (3.0 cr)
- BIOL 5232 - Molecular Biology Laboratory (2.0 cr)
- BIOL 5511 - Virology (3.0 cr)
- BMS 5545 - Immunology (3.0 cr)

•**Anatomy, Morphology, Physiology (AMP)**

All courses except BIOL 5772 carry a lab component.

Take 0 or more course(s) from the following:

- BIOL 3703 - Animal Physiology (3.0 cr)
- BIOL 3771 - Human Anatomy (4.0 cr)
- BIOL 3772 - Human Physiology (4.0 cr)
- BIOL 4604 - Plant Physiology (4.0 cr)
- BIOL 5772 - Neural Systems and Behavior (3.0 cr)

•**Diversity and Taxonomy (DT)**

All courses in this category carry a lab component.

Take 0 or more course(s) from the following:

- BIOL 3502 - General Microbiology (4.0 cr)
- BIOL 3601 - Plant Diversity (3.0 cr)
- BIOL 3603 - Plant Taxonomy (3.0 cr)
- BIOL 3701 - Animal Diversity (4.0 cr)
- BIOL 4731 - Entomology (3.0 cr)
- BIOL 4761 - Ichthyology (3.0 cr)
- BIOL 4763 - Ornithology (3.0 cr)
- BIOL 4764 - Mammalogy (3.0 cr)
- BIOL 5515 - Microbial Diversity and Phylogeny (3.0 cr)

**Optional Electives**

Courses in the following two categories may be used to complete the outstanding credits towards the 14 total credits needed.

Take 0 or more course(s) from the following:

**Ecology, Evolution and Behavior (EEB)**

BIOL 3761, 3811, and 4839 carry a lab component.

Take 0 or more course(s) from the following:

- BIOL 3760 - Marine Biology (3.0 cr)
- BIOL 3761 - Field Studies in Marine Biology (4.0 cr)
- BIOL 3401 - Evolution [SUSTAIN] (3.0 cr)
- BIOL 3811 - Plant Ecology (4.0 cr)
- BIOL 3830 - Aquatic Food Webs (3.0 cr)
- BIOL 3835 - Freshwater Ecology (3.0 cr)
- BIOL 4233 - Genomics (3.0 cr)
- BIOL 4818 - Biotic Response to Climate Change (2.0 cr)
- BIOL 4839 - Coral Reef Field Studies (3.0 cr)
- BIOL 4850 - Evolution in Agriculture: Crops, Animals, Weeds, and Insects (3.0 cr)
- BIOL 4891 - Animal Behavior (2.0 cr)
- BIOL 4992 - Senior Seminar: Classic Readings in Natural History (1.0 cr)
- BIOL 5240 - Ecological Genetics (3.0 cr)
- BIOL 5777 - Plankton Biology (2.0 cr)
- BIOL 5801 - Microbial Ecology (2.0 cr)
- BIOL 5805 - Fisheries Ecology (3.0 cr)
- BIOL 5808 - Landscape Ecology: Theory and Application (3.0 cr)
- BIOL 5833 - Stream Ecology (3.0 cr)
- BIOL 5861 - Lake Ecology (3.0 cr)
- BIOL 5865 - Conservation Biology (2.0 cr)
- BIOL 5870 - Wetland Ecology (3.0 cr)

•**Supplemental Biology Electives (SBE)**



These courses can be used as additional electives only if they have not been used in the core. 2 cr of SSP 3002 TA Practicum (in Biology) may be substituted for BIOL 3993 as an upper division elective with departmental approval. A maximum of 2 cr BIOL 3993, a maximum of 4 cr BIOL 3994 and a maximum of 1 cr BIOL 3996 may be applied to the degree. BIOL 2102, 2202 and 2802 carry a lab component.

Take 0 or more course(s) from the following:

- BIOL 2102 - Cell Biology Laboratory (2.0 cr)
- BIOL 2202 - Genetics Laboratory (2.0 cr)
- BIOL 2802 - Ecology Laboratory (2.0 cr)
- BIOL 3001 - Outreach to the K-12 Science Classroom (3.0 cr)
- BIOL 3993 - Laboratory Teaching Experience (1.0 - 2.0 cr)
- BIOL 3994 - Undergraduate Research (1.0 - 3.0 cr)
- BIOL 3996 - Internship in Biology (1.0 - 2.0 cr)
- BIOL 5001 - Teaching and Learning in the Life Sciences (1.0 cr)

**Courses Required From Other Programs (13 - 17 cr)**

**Biochemistry**

- CHEM 3322 - Biochemistry (3.0 cr)
- CHEM 3324 - Biochemistry Laboratory (1.0 cr)
- or CHEM 4351 - Biochemistry I (3.0 cr)
- CHEM 4352 - Biochemistry II (3.0 cr)
- CHEM 4363 - Biochemistry Laboratory (2.0 cr)

**Organic Chemistry II**

- CHEM 2542 - Organic Chemistry II (3.0 cr)
- CHEM 2544 - Organic Chemistry II Laboratory (1.0 cr)

**Physics II**

- PHYS 1002 - Introduction to Physics II (5.0 cr)
- or PHYS 2015 - General Physics II (4.0 cr)
- with PHYS 2016 - General Physics Lab II (1.0 cr)
- or PHYS 2018 - Honors General Physics II (4.0 cr)
- with PHYS 2016 - General Physics Lab II (1.0 cr)

### **Duluth Campus**

## **Biology Minor**

*Biology*

### **Swenson College of Science and Engineering**

- Program Type: Undergraduate minor related to major
- Requirements for this program are current for Fall 2016
- Required credits in this minor: 32

Biology has long been recognized as basic to such important areas as environment, agriculture, and medicine.

### **Program Delivery**

This program is available:

- via classroom (the majority of instruction is face-to-face)

### **Minor Requirements**

#### **Biology Minor Courses (19 cr)**

- [BIOL 1011](#) - General Biology I [LE CAT4, NAT SCI] (5.0 cr)  
or [BIOL 1013](#) - General Biology I for Science and Engineering majors [NAT SCI] (5.0 cr)
- [BIOL 1012](#) - General Biology II [SUSTAIN] (5.0 cr)
- [BIOL 2110](#) - Cell and Molecular Biology (3.0 cr)
- [BIOL 2201](#) - Genetics (3.0 cr)
- [BIOL 2410](#) - Ecology and Evolution (3.0 cr)

#### **Upper Division Requirements (3 cr)**

Take 1 or more course(s) totaling 3 or more credit(s) from the following:

- BIOL 3xxx
- BIOL 4xxx
- BIOL 5xxx

#### **Chemistry (10 cr)**

- [CHEM 1113](#) - Introduction to General, Organic, and Biological Chemistry I [LE CAT4, NAT SCI] (5.0 cr)
- [CHEM 1114](#) - Introduction to General, Organic, and Biological Chemistry II (5.0 cr)
- or [CHEM 1153](#) - General Chemistry I [LE CAT5, NAT SCI] (4.0 cr)
- [CHEM 1154](#) - General Chemistry Lab I [LE CAT4, NAT SCI] (1.0 cr)
- [CHEM 1155](#) - General Chemistry II (4.0 cr)
- [CHEM 1156](#) - General Chemistry Lab II (1.0 cr)

### **Duluth Campus**

## **Biomedical Sciences B.S.**

*Duluth School of Medicine - Adm, Pharmacy, College of - Adm, Swenson College of Science & Engineering*

### **Swenson College of Science and Engineering**

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 120
- Required credits within the major: 90
- Degree: Bachelor of Science

Refer to the Swenson College of Science and Engineering Student Affairs Office and the University of Minnesota Medical School Duluth Student Affairs Office, or the University of Minnesota Duluth College of Pharmacy Student Services Office.

### **Program Delivery**

This program is available:

- via classroom (the majority of instruction is face-to-face)

### **Admission Requirements**

Students must complete 90 credits before admission to the program.

Three years of an undergraduate major in SCSE, including the advanced writing requirement, the UMD Liberal Education Program, all pre-med or pre-pharm courses, and the first year of medical or pharmacy school.

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

### **General Requirements**

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

### **Program Requirements**

See the Swenson College of Science and Engineering Student Affairs Office, the University of Minnesota Medical School Duluth Student Affairs Office, or the University of Minnesota Duluth College of Pharmacy Student Services Office.

Advanced writing requirement will be met by meeting requirements for admission to the UMD School of Medicine or UM College of Pharmacy.

### **Individualized Program**

Individualized Plan

### **Duluth Campus**

## **Cell and Molecular Biology B.S.**

*Biology*

### **Swenson College of Science and Engineering**

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 120
- Required credits within the major: 84 to 91
- Degree: Bachelor of Science

New students are not being accepted into this program. Please visit with a member of the SCSE student advising office for additional information.

Cell and molecular biology are two of the most rapidly growing areas of modern biology. This major prepares students for graduate school and careers in cell biology, genetics, developmental biology, physiology, immunology, biotechnology, molecular biology and microbiology. The major is also appropriate for students considering professional schools of medicine, dentistry, pharmacy, and veterinary medicine.

The program is administered by the Department of Biology and involves faculty in both the Swenson College of Science and Engineering and the Medical School Duluth.

### **Program Delivery**

This program is available:

- via classroom (the majority of instruction is face-to-face)

### **Admission Requirements**

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

### **General Requirements**

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

### **Program Requirements**

1. A minor or second major from another area of study outside the Department of Biology, with the exception of the natural history minor.

#### **Biology Core Courses (31-32 cr)**

[BIOL 1011](#) - General Biology I [LE CAT4, NAT SCI] (5.0 cr)

[BIOL 1012](#) - General Biology II [SUSTAIN] (5.0 cr)



BIOL 3100 - Cell Biology (3.0 cr)  
BIOL 2201 - Genetics (3.0 cr)  
BIOL 3401 - Evolution [SUSTAIN] (3.0 cr)  
BIOL 3987 - Communication in Biology (2.0 cr)  
BIOL 4231 - Molecular Biology (3.0 cr)  
BIOL 5232 - Molecular Biology Laboratory (2.0 cr)  
BIOL 2102 - Cell Biology Laboratory (2.0 cr)  
or BIOL 2202 - Genetics Laboratory (2.0 cr)  
BIOL 3703 - Animal Physiology (3.0 cr)  
or BIOL 4361 - Developmental Biology (3.0 cr)  
or BIOL 3502 - General Microbiology (4.0 cr)  
or BIOL 4604 - Plant Physiology (4.0 cr)

**Electives (10 cr)**

If more than 1 lab elective (2102, 2202) or cell BIOL core 3703, 4361, 4603, (4501 or 4503) are taken the excess may be used for cell BIOL elective cr; BIOL 3990 & 5990 are accepted only by department approval; 2 cr of SSP may be substituted for BIOL 3993 as elective cr. Courses cannot be used to fulfill more than 1 requirement in the major; max of 2 cr of BIOL 3993; max of 4 cr of BIOL 3994 and a max of 1 cr of BIOL 3996 may be applied.

Take 10 or more credit(s) from the following:

**Cell Biology Electives**

Maximum of one non-BIOL course may be taken.

Take 6 or more credit(s) from the following:

- BIOL 2102 - Cell Biology Laboratory (2.0 cr)
- BIOL 2202 - Genetics Laboratory (2.0 cr)
- BIOL 3512 - Biology of HIV and AIDS (3.0 cr)
- BIOL 3101 - Molecular Biology of Cancer (3.0 cr)
- BIOL 3102 - Cell Biology of Human Disease (3.0 cr)
- BIOL 3301 - Patterning the Embryo (3.0 cr)
- BIOL 3502 - General Microbiology (4.0 cr)
- BIOL 3703 - Animal Physiology (3.0 cr)
- BIOL 4199 - Frontiers in Cell Biology (2.0 cr)
- BIOL 4233 - Genomics (3.0 cr)
- BIOL 4361 - Developmental Biology (3.0 cr)
- BIOL 4511 - Medical Microbiology (3.0 cr)
- BIOL 4604 - Plant Physiology (4.0 cr)
- BIOL 4631 - Plant Cell and Molecular Biology (3.0 cr)
- BIOL 5511 - Virology (3.0 cr)
- BIOL 5515 - Microbial Diversity and Phylogeny (3.0 cr)
- BIOL 5772 - Neural Systems and Behavior (3.0 cr)
- BIOL 5801 - Microbial Ecology (2.0 cr)
- BIOL 5802 - Microbial Ecology Laboratory (2.0 cr)
- BMS 5501 - Neurobiochemistry (2.0 cr)
- BMS 5545 - Immunology (3.0 cr)
- BMS 5555 - Molecular Pathogenesis: Current Concepts (3.0 cr)
- BMS 5601 - Physiology of Organ Systems I (4.0 cr)
- BMS 5602 - Physiology of Organ Systems II (2.0 cr)

**•Non-Cell Biology Electives**

Take 0 - 1 course(s) totaling 0 or more credit(s) from the following:

- BIOL 3771 - Human Anatomy (4.0 cr)
- BIOL 2801 - General Ecology (3.0 cr)
- BIOL 2802 - Ecology Laboratory (2.0 cr)
- BIOL 3001 - Outreach to the K-12 Science Classroom (3.0 cr)
- BIOL 3601 - Plant Diversity (3.0 cr)
- BIOL 3603 - Plant Taxonomy (3.0 cr)
- BIOL 3701 - Animal Diversity (4.0 cr)
- BIOL 3760 - Marine Biology (3.0 cr)
- BIOL 3761 - Field Studies in Marine Biology (4.0 cr)
- BIOL 3830 - Aquatic Food Webs (3.0 cr)
- BIOL 3835 - Freshwater Ecology (3.0 cr)
- BIOL 3993 - Laboratory Teaching Experience (1.0 - 2.0 cr)
- BIOL 3994 - Undergraduate Research (1.0 - 3.0 cr)
- BIOL 3996 - Internship in Biology (1.0 - 2.0 cr)
- BIOL 4731 - Entomology (3.0 cr)
- BIOL 4761 - Ichthyology (3.0 cr)
- BIOL 4763 - Ornithology (3.0 cr)



- BIOL 4764 - Mammalogy (3.0 cr)
- BIOL 4818 - Biotic Response to Climate Change (2.0 cr)
- BIOL 4891 - Animal Behavior (2.0 cr)
- BIOL 5240 - Ecological Genetics (3.0 cr)
- BIOL 5777 - Plankton Biology (2.0 cr)
- BIOL 5805 - Fisheries Ecology (3.0 cr)
- BIOL 5807 - Mathematical Ecology (3.0 cr)
- BIOL 5808 - Landscape Ecology: Theory and Application (3.0 cr)
- BIOL 5833 - Stream Ecology (3.0 cr)
- BIOL 4839 - Coral Reef Field Studies (3.0 cr)
- BIOL 5861 - Lake Ecology (3.0 cr)
- BIOL 5865 - Conservation Biology (2.0 cr)
- BIOL 5870 - Wetland Ecology (3.0 cr)
- MATH 5233 - Mathematical Foundations of Bioinformatics (3.0 cr)
- BMS 5501 - Neurobiochemistry (2.0 cr)
- BMS 5545 - Immunology (3.0 cr)
- BMS 5555 - Molecular Pathogenesis: Current Concepts (3.0 cr)
- BMS 5601 - Physiology of Organ Systems I (4.0 cr)
- BMS 5602 - Physiology of Organ Systems II (2.0 cr)

**Courses From Other Programs (43 - 49 cr)****Biochemistry**

- CHEM 3322 - Biochemistry (3.0 cr)
- CHEM 3324 - Biochemistry Laboratory (1.0 cr)
- or CHEM 4351 - Biochemistry I (3.0 cr)
- CHEM 4352 - Biochemistry II (3.0 cr)
- CHEM 4363 - Biochemistry Laboratory (2.0 cr)

**General Chemistry**

- CHEM 1153 - General Chemistry I [LE CAT5, NAT SCI] (4.0 cr)
- CHEM 1154 - General Chemistry Lab I [LE CAT4, NAT SCI] (1.0 cr)
- CHEM 1155 - General Chemistry II (4.0 cr)
- CHEM 1156 - General Chemistry Lab II (1.0 cr)

**Organic Chemistry**

- CHEM 2541 - Organic Chemistry I (3.0 cr)
- CHEM 2542 - Organic Chemistry II (3.0 cr)
- CHEM 2543 - Organic Chemistry I Laboratory (1.0 cr)
- CHEM 2544 - Organic Chemistry II Laboratory (1.0 cr)

**Mathematics**

- MATH 1290 - Calculus for the Natural Sciences [LE CAT2, LOGIC & QR] (5.0 cr)
- or MATH 1596 - Honors: Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)
- or MATH 1296 - Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)
- MATH 1297 - Calculus II [LOGIC & QR] (5.0 cr)
- or MATH 1597 - Honors: Calculus II [LOGIC & QR] (5.0 cr)
- or STAT 2411 - Statistical Methods [LE CAT2, LOGIC & QR] (3.0 cr)
- or STAT 3611 - Introduction to Probability and Statistics (4.0 cr)

**Physics I**

- PHYS 1001 - Introduction to Physics I [LE CAT4, NAT SCI] (5.0 cr)
- PHYS 2013 - General Physics I [LE CAT5, NAT SCI] (4.0 cr)
- or PHYS 2017 - Honors: General Physics I [NAT SCI] (4.0 cr)
- PHYS 2014 - General Physics Lab I [NAT SCI] (1.0 cr)

**Physics II**

- PHYS 1002 - Introduction to Physics II (5.0 cr)
- PHYS 2015 - General Physics II (4.0 cr)
- or PHYS 2018 - Honors General Physics II (4.0 cr)
- PHYS 2016 - General Physics Lab II (1.0 cr)

**Advanced Writing**

- WRIT 3150 - Advanced Writing: Science (3.0 cr)

### **Duluth Campus**

## **Chemical Engineering B.S.Ch.E.**

*Chemical Engineering*

### **Swenson College of Science and Engineering**

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 125 to 129
- Required credits within the major: 104 to 108
- Degree: Bachelor of Science in Chemical Engineering

The Department of Chemical Engineering strives for nationally recognized excellence in engineering education and research by using modern, hands-on, and active learning experiences to prepare undergraduate students for professional success, and to hold paramount the safety, health, and welfare of the public and protect the environment in performance of their professional duties.

The Department of Chemical Engineering produces engineers with a strong foundation of technical, communication, teamwork, and problem-solving skills required for professional success, consistent with the following objectives:

1. Pursue careers where they apply their engineering and problem-solving skills.
2. Pursue advanced studies or other forms of continuing education.
3. Value their University of Minnesota, Duluth (UMD) chemical engineering education and endorse the program and its students.

This four-year baccalaureate (B.S.Ch.E.) degree program emphasizes the development of the student's ability to analyze and design chemical processing systems. By the end of the program, the student must demonstrate the ability to solve engineering problems, have a sensitivity to the social and environmental impacts of the engineering profession, and the ability to maintain a high level of competency.

Chemical engineering graduates are qualified for employment in diverse industries, ranging from those that manufacture inorganic chemicals, petrochemicals, plastics, synthetic fibers, paper and pulp, and pharmaceuticals to those that process minerals, materials, and hazardous wastes.

Graduates are qualified for assignments that include plant operations, process development, process control, project engineering, or technical sales, and frequently pursue engineering management later in their careers. They are also well qualified to continue with professional or graduate education.

The chemical engineering curriculum is based on fundamental sciences including physics, chemistry, and mathematics; traditional chemical engineering sciences such as material and energy balance, transport phenomena, and thermodynamics; and chemical engineering design courses such as reaction engineering, separations, and unit operations, with a capstone design course during the senior year. Students have an opportunity to become involved in research, through either the Undergraduate Research Opportunities Program or the department honors program.

The Bachelor of Science in Chemical Engineering is accredited by the Engineering Accreditation Commission of ABET, <http://www.abet.org>

Honors Requirement: To graduate with department honors, students must have a minimum 3.50 GPA and be nominated by the chemical engineering faculty.

### **Program Delivery**

This program is available:

- via classroom (the majority of instruction is face-to-face)

### **Admission Requirements**

Students may declare a chemical engineering major as freshmen or sophomores.

Students must complete the majority of the program's lower division requirements (freshman and sophomore years), including CHE 2111, CHEM 2541, MATH 3280, and PHYS 2015 and 2016, before applying for admission to upper division (junior and senior years). Successful completion of CHE 2111 (with a grade of C+ or better) is required for admission to upper division. Admission is competitive and applicants are admitted on a space-available basis, with priority determined by the cumulative GPA in engineering, physics, mathematics, and chemistry through CHEM 2541.

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

## General Requirements

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

## Program Requirements

A 2.00 minimum GPA in all courses taken in the chemical engineering major, including required courses in related fields. GPA requirements apply to all courses in the major taken at University of Minnesota, Duluth calculated separately and to all courses in the major when transfer credits are included.

### Introduction to Chemical Engineering (3 cr)

Transfer students with 36 or more credits and completion of one year of general chemistry and one year of calculus must take an additional 2xxx or higher engineering elective of 3 credits or more instead of CHE 1011.

[CHE 1011](#) - Introduction to Chemical Engineering. [LE CAT5] (3.0 cr)  
or [CHE 2001](#) - Introduction to Environmental Engineering (3.0 cr)

### CHE Lower Division (9 - 10 cr)

[CHE 2011](#) - Design of Engineering Experiments (3.0 cr)  
[CHE 2121](#) - Chemical Engineering Thermodynamics (3.0 cr)  
[CHE 2111](#) - Material and Energy Balances (3.0 cr)  
or [CHE 2211](#) - Materials and Energy Balances (4.0 cr)

### CHE Upper Division (37 - 38 cr)

[CHE 3311](#) (5 cr) may be substituted for [CHE 3111](#) (3 cr) and [CHE 3112](#) (3 cr).  
[CHE 3031](#) - Computational Methods in Chemical Engineering (3.0 cr)  
[CHE 3111](#) - Fluid Mechanics (3.0 cr)  
[CHE 3112](#) - Heat and Mass Transfer (3.0 cr)  
[CHE 3211](#) - Chemical Engineering Laboratory I [COMM & LAN] (3.0 cr)  
[CHE 3231](#) - Properties of Engineering Materials (3.0 cr)  
[CHE 4111](#) - Separations (3.0 cr)  
[CHE 4211](#) - Chemical Engineering Laboratory II (3.0 cr)  
[CHE 4301](#) - Chemical Reaction Engineering (3.0 cr)  
[CHE 4402](#) - Process Dynamics and Control (3.0 cr)  
[CHE 4501](#) - Chemical Engineering Design I [SUSTAIN] (4.0 cr)  
[CHE 4502](#) - Chemical Engineering Design II (4.0 cr)  
[CHE 3241](#) - Principles of Particle Technology (3.0 cr)  
or [CHE 4141](#) - Material and Minerals Processing (3.0 cr)

### Courses From Other Programs (41 - 42 cr)

#### Computer Science

[CS 1121](#) - Introduction to Programming in Visual BASIC.NET [LE CAT3, LOGIC & QR] (3.0 cr)  
or [CS 1411](#) - Introduction to Programming in Matlab (4.0 cr)

#### Chemistry

[CHEM 1153](#) - General Chemistry I [LE CAT5, NAT SCI] (4.0 cr)

CHEM 1154 - General Chemistry Lab I [LE CAT4, NAT SCI] (1.0 cr)  
CHEM 1155 - General Chemistry II (4.0 cr)  
CHEM 1156 - General Chemistry Lab II (1.0 cr)  
CHEM 2541 - Organic Chemistry I (3.0 cr)  
CHEM 2543 - Organic Chemistry I Laboratory (1.0 cr)

**Math**

MATH 1296 - Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)  
or MATH 1596 - Honors: Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)  
MATH 1297 - Calculus II [LOGIC & QR] (5.0 cr)  
or MATH 1597 - Honors: Calculus II [LOGIC & QR] (5.0 cr)  
MATH 3280 - Differential Equations with Linear Algebra (4.0 cr)

**Physics**

PHYS 2013 - General Physics I [LE CAT5, NAT SCI] (4.0 cr)  
or PHYS 2017 - Honors: General Physics I [NAT SCI] (4.0 cr)  
PHYS 2014 - General Physics Lab I [NAT SCI] (1.0 cr)  
PHYS 2015 - General Physics II (4.0 cr)  
or PHYS 2018 - Honors General Physics II (4.0 cr)  
PHYS 2016 - General Physics Lab II (1.0 cr)

**Advanced Chemistry Electives (8 cr)**

May not be satisfied with CHEM 4184, 4185, 4634 or 5350.

Take 8 or more credit(s) from the following:

- CHEM 2xxx
- CHEM 3xxx
- CHEM 4xxx
- CHEM 5xxx

**Chemical Engineering Electives (3 cr)**

Take 3 or more credit(s) from the following:

- CHE 4xxx
- CHE 5xxx

**Advanced Writing Requirement (3 cr)**

WRIT 31xx or higher advanced writing course

**Advanced Mathematics or Statistics Electives (3 - 4 cr)**

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

- MATH 3298 - Calculus III (4.0 cr)
- MATH 3355 - Discrete Mathematics (4.0 cr)
- MATH 3810 - Applied Mathematics: Numerical Methods (4.0 cr)
- MATH 4240 - Applied Mathematics: Operational Methods (3.0 cr)
- MATH 5260 - Dynamical Systems (3.0 cr)
- MATH 5270 - Modeling with Dynamical Systems (3.0 cr)
- MATH 5280 - Partial Differential Equations (3.0 cr)
- MATH 5810 - Linear Programming (3.0 cr)
- MATH 5830 - Numerical Analysis: Approximation and Quadrature (4.0 cr)
- MATH 5840 - Numerical Analysis: Systems and Optimization (4.0 cr)
- MATH 5850 - Numerical Differential Equations (4.0 cr)
- STAT 3411 - Engineering Statistics (3.0 cr)
- STAT 3611 - Introduction to Probability and Statistics (4.0 cr)

## Duluth Campus

### Chemistry B.A.

*Chemistry and Biochemistry, Swenson College of Science & Engineering*

#### Swenson College of Science and Engineering

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 120
- Required credits within the major: 57 to 65
- Degree: Bachelor of Arts

Chemistry is the study of matter and the physical changes that matter undergoes. Chemical reactions occur every day and in every aspect of life: respiration, metabolism and growth in living systems, combustion in cars and heating plants, pharmaceutical and polymer production, and the conversion of raw materials to usable products.

Chemistry is an important and central subject. Students who are interested in health sciences such as medicine, pharmacy, dentistry, and related fields need to take several semesters of chemistry. Students who like scientific and technical subjects, and who have a solid math and science background from high school, are best prepared to major in chemistry.

Students completing the BA in chemistry generally plan to use chemistry as a study field that complements other areas such as law, library science, technical writing, public relations, or sales. BA students are encouraged to participate in undergraduate research. The major also provides a strong foundation for students planning to go to professional schools, such as medical or pharmacy school.

Honors requirement: Qualified majors may apply after the first semester of their sophomore year. Participants choose a research advisor and complete two semesters of effort on a jointly developed project. Written reports and an oral presentation of the research are also required.

### Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

### Admission Requirements

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

#### Required prerequisites

##### Introductory Requirement (1 cr)

Transfer students with 24 or more credits and current students who change from a BS degree or change colleges may request to be waived from this requirement. New first-year students with 24 or more PSEO credits may request to be waived from this requirement. [UST 1000](#) - UMD Seminar (1.0 - 2.0 cr)

### General Requirements

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

## Program Requirements

1. A minor or second major in a different subject is required.

The BMB major may be declared with the BA chemistry major. However, this combination does not satisfy the requirement for a minor or a second major in a different subject.

The B.A. biochemistry major may be declared.

### First Year (20 cr)

High school algebra and high school chemistry are required for CHEM 1173, 1174. This schedule presupposes placement in MATH 1296 as the first course.

[CHEM 1173](#) - General Chemistry I for Majors [NAT SCI] (4.0 cr)

[CHEM 1174](#) - General Chemistry I Lab for Majors [NAT SCI] (1.0 cr)

[CHEM 1175](#) - General Chemistry II for Majors (4.0 cr)

[CHEM 1176](#) - General Chemistry II Lab for Majors (1.0 cr)

#### Math

[MATH 1296](#) - Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)

or [MATH 1596](#) - Honors: Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)

[MATH 1297](#) - Calculus II [LOGIC & QR] (5.0 cr)

or [MATH 1597](#) - Honors: Calculus II [LOGIC & QR] (5.0 cr)

### Second Year (22 cr)

[CHEM 2541](#) - Organic Chemistry I (3.0 cr)

[CHEM 2543](#) - Organic Chemistry I Laboratory (1.0 cr)

[CHEM 2542](#) - Organic Chemistry II (3.0 cr)

[CHEM 2544](#) - Organic Chemistry II Laboratory (1.0 cr)

Chem 2242 Analytical Chemistry and the Environment in Poland may be substituted for the following:

[CHEM 2222](#) - Quantitative Analysis (3.0 cr)

[CHEM 2223](#) - Quantitative Analysis Laboratory (1.0 cr)

Take one of the following course pairs (PHYS 2017/14 and 2015/16 are strongly encouraged):

#### Introduction to Physics

[PHYS 1001](#) - Introduction to Physics I [LE CAT4, NAT SCI] (5.0 cr)

[PHYS 1002](#) - Introduction to Physics II (5.0 cr)

#### or General Physics

[PHYS 2013](#) - General Physics I [LE CAT5, NAT SCI] (4.0 cr)

or [PHYS 2017](#) - Honors: General Physics I [NAT SCI] (4.0 cr)

[PHYS 2014](#) - General Physics Lab I [NAT SCI] (1.0 cr)

[PHYS 2015](#) - General Physics II (4.0 cr)

or [PHYS 2018](#) - Honors General Physics II (4.0 cr)

[PHYS 2016](#) - General Physics Lab II (1.0 cr)

### Third Year (8 - 16 cr)

Choose one of the Biochemistry and Physical Chemistry course sets.

#### Biochemistry

[CHEM 3322](#) - Biochemistry (3.0 cr)

[CHEM 3324](#) - Biochemistry Laboratory (1.0 cr)

or [CHEM 4351](#) - Biochemistry I (3.0 cr)

[CHEM 4352](#) - Biochemistry II (3.0 cr)

[CHEM 4363](#) - Biochemistry Laboratory (2.0 cr)

#### Physical Chemistry

[CHEM 4633](#) - Physical Chemistry Laboratory (1.0 cr)

[CHEM 4634](#) - Physical Chemistry (3.0 cr)

or [CHEM 4641](#) - Physical Chemistry I (3.0 cr)

[CHEM 4643](#) - Physical Chemistry Laboratory I (1.0 cr)

[CHEM 4642](#) - Physical Chemistry II (3.0 cr)

[CHEM 4644](#) - Physical Chemistry Laboratory II (1.0 cr)

### Fourth Year (3 cr)

#### Inorganic Chemistry

[CHEM 3432](#) - Descriptive Inorganic Chemistry (3.0 cr)

### Advanced Writing Requirement (3 cr)

WRIT 31xx



### Duluth Campus

## Chemistry B.S.

*Chemistry and Biochemistry*

### Swenson College of Science and Engineering

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 120
- Required credits within the major: 76 to 80
- Degree: Bachelor of Science

Chemistry is a body of knowledge that helps explain the physical world and its processes. Chemists study substances--their composition, structures, properties, and reactions. The Department of Chemistry and Biochemistry provides classroom and laboratory learning opportunities and research experiences across the discipline designed to meet the needs of students in engineering, liberal arts, and pre-professional programs, as well as those who wish to pursue careers or graduate studies in chemistry or related disciplines.

Honors requirement: The Department of Chemistry and Biochemistry honors program helps outstanding chemistry majors develop into competent, independent research workers, encourages student interest in the discipline, and aids in the transition from student to working scientist. Qualified majors may apply after the first semester of their sophomore year. Participants choose a research adviser and complete two semesters on a jointly developed project. Written reports and an oral presentation of the research are also required.

### Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

### Admission Requirements

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

### General Requirements

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

### Program Requirements

1. A minor or second major in a different subject is required.  
The BS BMB and BS in chemistry may be declared. This combination satisfies the requirement of a minor or second major in a different subject.  
The BA in biochemistry major may be declared.
2. Students earning a BS degree meet the requirements for degree certification by the American Chemical Society.

**Year One (20 cr)**

High school algebra and high school chemistry are required for CHEM 1173, CHEM 1174. This schedule presupposes placement into MATH 1296.

- MATH 1296 - Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)  
or MATH 1596 - Honors: Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)
- MATH 1297 - Calculus II [LOGIC & QR] (5.0 cr)  
or MATH 1597 - Honors: Calculus II [LOGIC & QR] (5.0 cr)
- CHEM 1173 - General Chemistry I for Majors [NAT SCI] (4.0 cr)
- CHEM 1174 - General Chemistry I Lab for Majors [NAT SCI] (1.0 cr)
- CHEM 1175 - General Chemistry II for Majors (4.0 cr)
- CHEM 1176 - General Chemistry II Lab for Majors (1.0 cr)

**Year Two (27 cr)**

- CHEM 2541 - Organic Chemistry I (3.0 cr)
  - CHEM 2542 - Organic Chemistry II (3.0 cr)
  - CHEM 2543 - Organic Chemistry I Laboratory (1.0 cr)
  - CHEM 2545 - Organic Chemistry II Laboratory for B.S. Chemistry Majors (2.0 cr)
  - MATH 3280 - Differential Equations with Linear Algebra (4.0 cr)
- Take the following course pair or CHEM 2242 maybe substituted.
- CHEM 2222 - Quantitative Analysis (3.0 cr)
  - CHEM 2223 - Quantitative Analysis Laboratory (1.0 cr)
  - PHYS 2013 - General Physics I [LE CAT5, NAT SCI] (4.0 cr)  
or PHYS 2017 - Honors: General Physics I [NAT SCI] (4.0 cr)
  - PHYS 2014 - General Physics Lab I [NAT SCI] (1.0 cr)
  - PHYS 2015 - General Physics II (4.0 cr)  
or PHYS 2018 - Honors General Physics II (4.0 cr)
  - PHYS 2016 - General Physics Lab II (1.0 cr)

**Year Three (16 - 20 cr)**

- CHEM 3432 - Descriptive Inorganic Chemistry (3.0 cr)
- CHEM 4184 - Undergraduate Seminar I (1.0 cr)
- CHEM 4641 - Physical Chemistry I (3.0 cr)
- CHEM 4642 - Physical Chemistry II (3.0 cr)
- CHEM 4643 - Physical Chemistry Laboratory I (1.0 cr)
- CHEM 4644 - Physical Chemistry Laboratory II (1.0 cr)

**Biochemistry**

Choose one of the following biochemistry course sets.

- CHEM 3322 - Biochemistry (3.0 cr)
- CHEM 3324 - Biochemistry Laboratory (1.0 cr)
- or CHEM 4351 - Biochemistry I (3.0 cr)
- CHEM 4352 - Biochemistry II (3.0 cr)
- CHEM 4363 - Biochemistry Laboratory (2.0 cr)

**Year Four (10 cr)**

- CHEM 4185 - Undergraduate Seminar II (1.0 cr)
- CHEM 4242 - Instrumental Analysis (3.0 cr)
- CHEM 4243 - Instrumental Chemistry Laboratory (2.0 cr)
- CHEM 4435 - Inorganic Chemistry Laboratory (1.0 cr)
- CHEM 4436 - Inorganic Chemistry (3.0 cr)

**Advanced Writing Requirement (3 cr)**

Advanced Writing 31xx

### Duluth Campus

## Chemistry Minor

*Chemistry and Biochemistry*

### Swenson College of Science and Engineering

- Program Type: Undergraduate minor related to major
- Requirements for this program are current for Fall 2016
- Required credits in this minor: 29 to 30

Chemistry helps explain the physical world and its processes.

### Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

### Minor Requirements

#### Chemistry Minor Courses (29-30 cr)

##### Chemistry I and II

- CHEM 1153 - General Chemistry I [LE CAT5, NAT SCI] (4.0 cr)
- CHEM 1154 - General Chemistry Lab I [LE CAT4, NAT SCI] (1.0 cr)
- CHEM 1155 - General Chemistry II (4.0 cr)
- CHEM 1156 - General Chemistry Lab II (1.0 cr)

##### Organic Chemistry I and II

- CHEM 2541 - Organic Chemistry I (3.0 cr)
- CHEM 2543 - Organic Chemistry I Laboratory (1.0 cr)
- CHEM 2542 - Organic Chemistry II (3.0 cr)
- CHEM 2544 - Organic Chemistry II Laboratory (1.0 cr)

##### Additional Chemistry

- CHEM 2222 - Quantitative Analysis (3.0 cr)
- CHEM 2223 - Quantitative Analysis Laboratory (1.0 cr)
- or CHEM 2212 - Environmental Chemistry [NAT SCI, SUSTAIN] (4.0 cr)
- or CHEM 2242 - Analytical Chemistry and the Environment in Poland (4.0 cr)

##### Chemistry Electives

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

- CHEM 3322 - Biochemistry (3.0 cr)
- CHEM 4351 - Biochemistry I (3.0 cr)
- CHEM 4634 - Physical Chemistry (3.0 cr)
- CHEM 4641 - Physical Chemistry I (3.0 cr)

##### Math

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

- MATH 1250 - Precalculus Analysis [LE CAT2, LOGIC & QR] (4.0 cr)
- MATH 1290 - Calculus for the Natural Sciences [LE CAT2, LOGIC & QR] (5.0 cr)
- MATH 1296 - Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)
- MATH 1596 - Honors: Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)

### **Duluth Campus**

## **Civil Engineering B.S.C.E.**

*UMD-Civil Engineering, Dept of*

### **Swenson College of Science and Engineering**

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 131 to 132
- Required credits within the major: 119 to 120
- This program requires summer terms.
- Degree: Bachelor of Science in Civil Engineering

The B.S.C.E. program in civil engineering integrates topics from chemistry, physics, advanced mathematics, statistics, geology, and core engineering science to prepare graduates to work professionally in public and private organizations that design, develop, and construct structures; design, build, and maintain transportation systems and infrastructure; and design, operate, and control water resource systems. Graduates are rooted in safe and efficient design skills and show respect for and strive to improve the environment wherever they work.

The program includes four areas in civil engineering: transportation engineering, environmental and water resource engineering, structural engineering, and geotechnical engineering. Upper division students are exposed to each of these areas and obtain an in-depth knowledge in at least one area by taking additional elective courses.

Civil engineering graduates are qualified for employment in a wide variety of organizations, both public and private, including design, material testing and manufacture, construction, transportation, natural resources development, and energy. Graduates are prepared to begin their first step toward professional registration by taking the FE exam before completing their collegiate degree. They are also well qualified to continue with graduate education in civil engineering or engineering management.

Students in the B.S.C.E. program have the opportunity to put their design and entrepreneurial skills to use in ASCE design competitions, projects sponsored by regional companies, and research projects in the Undergraduate Research Opportunities Program.

The Bachelor of Science in Civil Engineering is accredited by the Engineering Accreditation Commission of ABET, <http://www.abet.org>

Honors Requirement: To graduate with department honors, a student must have a 3.40 GPA, be an active member of Tau Beta Pi or a professional engineering society (e.g. ASCE, ACI, SWE, & SME), and be nominated by a department faculty member.

### **Program Delivery**

This program is available:

- via classroom (the majority of instruction is face-to-face)

### **Admission Requirements**

Students must complete 11 courses before admission to the program.

Freshman and transfer students are usually admitted to pre-major status before admission to this major

A GPA above 2.0 is preferred for the following:

- 2.50 already admitted to the degree-granting college
- 2.50 transferring from another University of Minnesota college
- 2.50 transferring from outside the University

Freshman, sophomores, and transfer students may declare a CE major and be admitted to lower division status. Admission to the upper division B.S.C.E. program is competitive and based on performance in lower division courses and space availability. To be considered, students must complete the CE Application to upper division. The following requirements must be met:

1. Completion of the following 11 classes with a C- or better in each class (total 36 credits).
2. A cumulative GPA of 2.5 or better in the 11 required classes.

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

#### **Required prerequisites**

#### **Course Admission Requirements (36 -37 cr)**

##### **Chemistry**

[CHEM 1153](#) - General Chemistry I [LE CAT5, NAT SCI] (4.0 cr)

[CHEM 1154](#) - General Chemistry Lab I [LE CAT4, NAT SCI] (1.0 cr)

**Civil Engineering**

[CE 1025](#) - Introduction to Civil Engineering (1.0 cr)

[CE 2017](#) - Engineering Mechanics: Statics and Mechanics of Materials (5.0 cr)

**Computer Science**

[CS 1411](#) - Introduction to Programming in Matlab (4.0 cr)

or [CS 1121](#) - Introduction to Programming in Visual BASIC.NET [LE CAT3, LOGIC & QR] (3.0 cr)

**Math**

[MATH 1296](#) - Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)

or [MATH 1596](#) - Honors: Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)

[MATH 1297](#) - Calculus II [LOGIC & QR] (5.0 cr)

or [MATH 1597](#) - Honors: Calculus II [LOGIC & QR] (5.0 cr)

[MATH 3280](#) - Differential Equations with Linear Algebra (4.0 cr)

**Physics**

[PHYS 2013](#) - General Physics I [LE CAT5, NAT SCI] (4.0 cr)

or [PHYS 2017](#) - Honors: General Physics I [NAT SCI] (4.0 cr)

[PHYS 2014](#) - General Physics Lab I [NAT SCI] (1.0 cr)

**Writing**

[WRIT 1120](#) - College Writing [LE CAT1, WRITING] (3.0 cr)

## General Requirements

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

## Program Requirements

1. A minor or second major is not required for B.S.C.E.
2. Summer terms are not required but are optional for all students.
3. C- or better is required in all Civil Engineering courses.

**B.S.C.E. Major Requirements (41 cr)**

[CE 2425](#) - Geologic Principles for Civil Engineers [SUSTAIN] (4.0 cr)

[CE 3015](#) - CAD & Engineering Drawing (3.0 cr)

[CE 3016](#) - Surveying (2.0 cr)

[CE 3025](#) - Environmental Engineering (3.0 cr)

[CE 3026](#) - Project Management (3.0 cr)

[CE 3027](#) - Infrastructure Materials (4.0 cr)

[CE 3115](#) - Structural Analysis (3.0 cr)

[CE 3221](#) - Fluid Mechanics (3.0 cr)

[CE 3225](#) - Hydraulics and Hydrology (4.0 cr)

[CE 3316](#) - Transportation Engineering (4.0 cr)

[CE 3426](#) - Soil Mechanics (4.0 cr)

[CE 4255](#) - Senior Design (4.0 cr)



**Additional B.S.C.E. Requirements (21 cr)**

- COMM 1112 - Public Speaking [LE CAT3, COMM & LAN] (3.0 cr)
- MATH 3298 - Calculus III (4.0 cr)
- STAT 3411 - Engineering Statistics (3.0 cr)
- WRIT 31xx - Adv Writ (3 cr)
- ECON 1022 - Principles of Economics: Macro [LE CAT6, SOC SCI] (3.0 cr)  
or ECON 1023 - Principles of Economics: Micro [LE CAT6, SOC SCI] (3.0 cr)

**Physics II**

- PHYS 2015 - General Physics II (4.0 cr)  
or PHYS 2018 - Honors General Physics II (4.0 cr)
- PHYS 2016 - General Physics Lab II (1.0 cr)

**Technical Electives (6 cr)**

An additional 6 credits of technical electives must be taken and can be chosen from any course in the Swenson College of Science and Engineering at 2xxx or above (including CE courses not already counted toward the degree). CHEM 1152, CHEM 1155 and CHEM 1156, CHEM 1175 and CHEM 1176, as well as GIS 3563 and GIS 3564 can also be used to fulfill technical elective requirement.

**Civil Engineering Electives (15 cr)**

Choose 15 credits from the courses listed below. At least two courses (6 credits) must be taken from the same area. CE 4991 (Independent Study), CE 4995 (Special Topics), and CE 4996 (Independent Study) are allowed with Department approved petition.

**Structures Area**

Take 0 or more course(s) from the following:

- CE 4115 - Design of Steel Structures (3.0 cr)
- CE 4126 - Design of Concrete Structures (3.0 cr)
- CE 4128 - Prestressed Concrete Structures (3.0 cr)
- CE 4135 - Advanced Reinforced Concrete and Steel Design (3.0 cr)
- CE 4137 - Advanced Structural Analysis and Design (3.0 cr)
- CE 4515 - Sustainable Design and Construction [SUSTAIN] (3.0 cr)
- CE 5027 - Advanced Infrastructure Materials (3.0 cr)
- CE 5115 - Structural Dynamics (3.0 cr)
- CE 5127 - Bridge Analysis and Design (3.0 cr)
- CE 5128 - Prestressed Concrete Structures (3.0 cr)
- CE 5135 - Advanced Reinforced Concrete and Steel Design (3.0 cr)
- CE 5137 - Advanced Structural Analysis and Design (3.0 cr)
- CE 5410 - Finite Element Methods for Civil Engineering Applications (3.0 cr)
- CE 5515 - Sustainable Design and Construction (SUSTAIN) (3.0 cr)

-OR-

**Environmental and Water Resources Area**

Take 0 or more course(s) from the following:

- CE 4215 - Hydraulic Design (3.0 cr)
- CE 4226 - Water Resources Engineering (3.0 cr)
- CE 4237 - Water Quality Engineering (3.0 cr)
- CE 4256 - Design of Water and Waste Water Treatment Plants (3.0 cr)
- CE 4257 - Municipal Solid Waste Management and Hazardous Waste Systems (3.0 cr)
- CE 5201 - Water Policy (3.0 cr)
- CE 5216 - Applications in Environmental Modeling (3.0 cr)
- CE 5226 - Water Resources Engineering (3.0 cr)
- CE 5237 - Water Quality Engineering (3.0 cr)
- CE 5525 - Decision, Risk and Reliability (3.0 cr)

-OR-

**Transportation Engineering Area**

Take 0 or more course(s) from the following:

- CE 4315 - Traffic Systems Operations and Safety (3.0 cr)
- CE 4316 - Pavement Analysis and Design (3.0 cr)
- CE 4318 - Pavement Repair, Maintenance, Preservation and Management Systems (3.0 cr)
- CE 4326 - Highway Planning and Design (3.0 cr)
- CE 5315 - Traffic Systems Operations and Safety (3.0 cr)
- CE 5316 - Pavement Analysis and Design (3.0 cr)
- CE 5317 - Traffic Flow Theory and Modeling (3.0 cr)



- CE 5318 - Pavement Management Systems (3.0 cr)
- CE 5326 - Highway Planning and Design (3.0 cr)

-OR-

**Geotechnical Engineering Area**

Take 0 or more course(s) from the following:

- CE 4415 - Geotechnical Design (3.0 cr)
- CE 4421 - Applied Geostatistics (3.0 cr)
- CE 4422 - Numerical Modeling in Geotechnical Engineering (3.0 cr)
- CE 4426 - Rock Mechanics (3.0 cr)
- CE 4436 - Design of Underground and Surface Excavations in Rock (3.0 cr)
- CE 5420 - Advanced Soil Mechanics (3.0 cr)
- CE 5421 - Applied Geostatistics (3.0 cr)
- CE 5422 - Numerical Modeling in Geotechnical Engineering (3.0 cr)
- CE 5426 - Rock Mechanics (3.0 cr)
- CE 5436 - Design of Underground and Surface Excavations in Rock (3.0 cr)



**Duluth Campus**

## Computer Engineering Minor

*Electrical Engineering*

**Swenson College of Science and Engineering**

- Program Type: Undergraduate minor related to major
- Requirements for this program are current for Fall 2016
- Required credits in this minor: 36

The Computer Engineering minor provides students with basic knowledge and skills needed to understand, analyze, and design computer hardware and software systems. It provides high quality education in topics related to computer engineering that will prepare students for employment opportunities in the private and public sectors, graduate studies, and research.

### Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

### Minor Requirements

**Lower Division (32 cr)**

- CS 1511 - Computer Science I [LE CAT3, LOGIC & QR] (5.0 cr)  
or CS 1581 - Honors: Computer Science I [LE CAT3, LOGIC & QR] (5.0 cr)
- CS 1521 - Computer Science II (5.0 cr)
- CS 2511 - Software Analysis and Design (4.0 cr)
- EE 1315 - Digital Logic (4.0 cr)
- CS 2521 - Computer Organization and Architecture (4.0 cr)  
or EE 2325 - Microprocessor Systems (4.0 cr)
- MATH 1296 - Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)  
or MATH 1596 - Honors: Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)
- MATH 1297 - Calculus II [LOGIC & QR] (5.0 cr)  
or MATH 1597 - Honors: Calculus II [LOGIC & QR] (5.0 cr)

**Upper Division (4 cr)**

- CS 5621 - Computer Architecture (4.0 cr)  
or EE 4305 - Computer Architecture (4.0 cr)

## Duluth Campus

# Computer Information Systems B.S.

Computer Science

## Swenson College of Science and Engineering

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 120
- Required credits within the major: 59 to 60
- Degree: Bachelor of Science

Professionals in the field of information systems work with information technology and must have sound technical knowledge of computers, software, and communications. Since they operate within an organizational framework, they must also understand business and business functions. The B.S. in computer information systems is a four-year program that includes formal courses in information technology (including system architecture, operating systems, interactive multimedia computing, and networking), management information systems, project organization and management, and business organizational functions. The program also includes supporting courses in communications, mathematics and statistics, and the economic, social, and ethical implications of computing. Goals of the learning process include the development of good software, communication skills, and the ability to work effectively in team environments. This program provides both the necessary foundational studies for students seeking entry-level positions in information systems and a strong basis for continued career growth.

This program is appropriate for students seeking a professional career in the computer information systems field. It is a multidisciplinary program that emphasizes the study of systems development methodology and technology for our rapidly changing information society.

Graduates are prepared for positions in the design and development of information systems as project managers, information systems center specialists, network administrators, and database administrators. This major is also appropriate preparation for information systems graduate programs or MBA professional programs.

The computer science minor and computer science applied minor are not available to computer information systems technology majors.

## Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

## Admission Requirements

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

## General Requirements

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.



## Program Requirements

1. Minor in business administration.
2. A grade of C- or better is required in all prerequisites courses for computer science classes.
3. Senior survey; contact the computer science office for details.

### Core Courses (21 cr)

- CS 1511 - Computer Science I [LE CAT3, LOGIC & QR] (5.0 cr)  
or CS 1581 - Honors: Computer Science I [LE CAT3, LOGIC & QR] (5.0 cr)
- CS 1521 - Computer Science II (5.0 cr)
- CS 2511 - Software Analysis and Design (4.0 cr)
- CS 3011 - Information Technology Hardware and Software (4.0 cr)
- FMIS 2201 - Information Technology in Business (3.0 cr)

### Advanced Courses (24 cr)

- CS 3111 - Computer Ethics [HUMANITIES] (4.0 cr)
- CS 3121 - Interactive Multimedia Technology (4.0 cr)
- CS 3211 - Database System Concepts (4.0 cr)
- CS 3221 - Operating Systems Practicum (4.0 cr)
- CS 4411 - Data Communications and Network Technology (4.0 cr)
- CS 4531 - Software Engineering (4.0 cr)

### Additional Requirements (14 - 15 cr)

Additional requirements also include completing a business administration minor for non-LSBE students.

#### Communication

- COMM 1112 - Public Speaking [LE CAT3, COMM & LAN] (3.0 cr)

#### Math and Stats

- MATH 1296 - Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)  
or MATH 1596 - Honors: Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)
- STAT 3411 - Engineering Statistics (3.0 cr)  
or STAT 3611 - Introduction to Probability and Statistics (4.0 cr)

#### Writing

- WRIT 3121 - Advanced Writing: Business and Organizations (3.0 cr)  
or WRIT 3130 - Advanced Writing: Engineering (3.0 cr)  
or WRIT 3150 - Advanced Writing: Science (3.0 cr)

## Duluth Campus

# Computer Science B.A.

Computer Science

## Swenson College of Science and Engineering

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 120
- Required credits within the major: 54
- Degree: Bachelor of Science

Computers are ubiquitous in today's society and have application in nearly every aspect of our working and personal lives. The field of computer science has evolved to the point where advanced computer science techniques are now an integral component in nearly every discipline. Computing professionals who have sufficient exposure to a second discipline in their undergraduate studies are desperately needed in order to interact in a knowledgeable manner with experts in other areas in order to solve a broad range of problems. The Computer Science B.A. degree program prepares students to become such computing professionals and also allows for the pursuit of graduate and professional degrees in a wide range of disciplines.

The Computer Science B.A. is an interdisciplinary program that will produce computing professionals who have the necessary depth of expertise in computer science to have lifelong professional careers in the field. The program requires each student to gain knowledge and experience in the fundamentals of computer science, including computer organization and architecture, data structures and related algorithms, and programming languages. In addition, it allows for significant course work in a second complementary discipline. Students who complete this degree will have enormous flexibility and opportunity in their future careers and education since there is no discipline that is not touched in significant ways by computer science.

## Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

## Admission Requirements

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

### Required prerequisites

#### Introductory Course (1 cr)

Transfer students with 24 or more credits and current students who change from a B.S. degree or change colleges may request to be waived from this requirement. New first-year students with 24 or more PSEO credits may request to be waived from this requirement.

[UST 1000](#) - UMD Seminar (1.0 - 2.0 cr)

## General Requirements

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.



## Program Requirements

1. A minor or a second major from another department; the Computer Engineering minor may not be used to satisfy this requirement.
2. This schedule presupposes placement into MATH 1296.
3. A grade of C- or better is required in all prerequisite courses for computer science classes.
4. Senior survey; contact the computer science office for details.

### Computer Science Required Courses (26 cr)

- CS 1511 - Computer Science I [LE CAT3, LOGIC & QR] (5.0 cr)  
or CS 1581 - Honors: Computer Science I [LE CAT3, LOGIC & QR] (5.0 cr)
- CS 1521 - Computer Science II (5.0 cr)
- CS 2511 - Software Analysis and Design (4.0 cr)
- CS 2521 - Computer Organization and Architecture (4.0 cr)
- CS 3512 - Computer Science Theory (4.0 cr)
- CS 4531 - Software Engineering (4.0 cr)

### Computer Science Electives (12 cr)

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

- CS 4xxx
- CS 5xxx

### Courses Required From Other Programs (15 cr)

- COMM 1112 - Public Speaking [LE CAT3, COMM & LAN] (3.0 cr)
- STAT 3611 - Introduction to Probability and Statistics (4.0 cr)
- WRIT 31xx - Adv Writing (3 cr)
- MATH 1296 - Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)  
or MATH 1596 - Honors: Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)

### Duluth Campus

## Computer Science B.S.

Computer Science

### Swenson College of Science and Engineering

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 120
- Required credits within the major: 86 to 90
- Degree: Bachelor of Science

Computer science is a discipline that requires understanding the design of computers and computational processes. The BS in computer science is an accredited, four-year program that provides a solid foundation in mathematics and statistics, computational problem solving, software design and analysis, programming languages, algorithms, data structures, and computer organization and architecture. The program also requires that students acquire significant knowledge in several sub-disciplines of computer science, thus enabling them to apply and situate their knowledge of computer science fundamentals. Goals of the learning process include highly developed programming skills, an understanding of the context in which computing activities occur, and an ability to communicate effectively. The program provides the necessary foundational studies for students preparing for graduate school, as well as those seeking careers in industry.

The program is accredited by the Computing Accreditation Commission of ABET, <http://www.abet.org>.

Honors requirement: Program candidates submit an application to the department honors committee. Participants must maintain a 3.00 cumulative GPA and a 3.30 GPA in the major and complete an honors research project supervised by a faculty member; credit for the project can be earned in CS 4994 - Honors Project.

### Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

### Admission Requirements

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

### General Requirements

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

### Program Requirements

1. A minor or a second major from another department; the computer engineering minor may not be used to satisfy this requirement.

2. A grade of C- or better is required in all prerequisites courses for computer science classes.
3. Senior survey; contact the computer science office for details.

**Core Courses (18cr)**

- CS 1511 - Computer Science I [LE CAT3, LOGIC & QR] (5.0 cr)  
or CS 1581 - Honors: Computer Science I [LE CAT3, LOGIC & QR] (5.0 cr)  
CS 1521 - Computer Science II (5.0 cr)  
CS 2511 - Software Analysis and Design (4.0 cr)  
CS 2521 - Computer Organization and Architecture (4.0 cr)

**Advanced Courses (20 cr)**

- CS 3111 - Computer Ethics [HUMANITIES] (4.0 cr)  
CS 3512 - Computer Science Theory (4.0 cr)  
CS 4531 - Software Engineering (4.0 cr)  
CS 5631 - Operating Systems (4.0 cr)  
CS 5621 - Computer Architecture (4.0 cr)  
or CS 5651 - Computer Networks (4.0 cr)

**Advanced Course Electives (12 cr)**

Either CS 5621 or CS 5651 must be taken (under advanced courses); if both courses are taken, the second course fulfills the requirement of one advanced course elective.

Take 3 or more course(s) from the following:

- CS 4611 - Database Management Systems (4.0 cr)
- CS 4821 - Computer Security (4.0 cr)
- CS 4995 - Special Topics: (Various Titles to be Assigned) (1.0 - 4.0 cr)
- CS 5511 - Theory of Computation (4.0 cr)
- CS 5521 - Advanced Data Structures (4.0 cr)
- CS 5541 - Artificial Intelligence (4.0 cr)
- CS 5551 - User Interface Design (4.0 cr)
- CS 5571 - Principles of Programming Language (4.0 cr)
- CS 5641 - Compiler Design (4.0 cr)
- CS 5721 - Computer Graphics (4.0 cr)
- CS 5751 - Introduction to Machine Learning (4.0 cr)
- CS 5761 - Introduction to Natural Language Processing (4.0 cr)

**Courses From Other Programs (22 - 23 cr)****Advanced Writing**

- WRIT 3130 - Advanced Writing: Engineering (3.0 cr)  
or WRIT 3150 - Advanced Writing: Science (3.0 cr)

**Communications**

- COMM 1112 - Public Speaking [LE CAT3, COMM & LAN] (3.0 cr)

**Math and Stats**

- MATH 1296 - Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)  
or MATH 1596 - Honors: Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)  
MATH 1297 - Calculus II [LOGIC & QR] (5.0 cr)  
or MATH 1597 - Honors: Calculus II [LOGIC & QR] (5.0 cr)  
MATH 3326 - Vectors and Matrices (3.0 cr)  
or MATH 4326 - Linear Algebra (3.0 cr)  
STAT 3411 - Engineering Statistics (3.0 cr)  
or STAT 3611 - Introduction to Probability and Statistics (4.0 cr)

**Lab Science Sequences (10-13 cr)**

Complete one of the following lab science sequences:

**Biology**

- BIOL 1011 - General Biology I [LE CAT4, NAT SCI] (5.0 cr)  
BIOL 1012 - General Biology II [SUSTAIN] (5.0 cr)

**or Chemistry**

- CHEM 1153 - General Chemistry I [LE CAT5, NAT SCI] (4.0 cr)  
CHEM 1154 - General Chemistry Lab I [LE CAT4, NAT SCI] (1.0 cr)  
CHEM 1155 - General Chemistry II (4.0 cr)  
CHEM 1156 - General Chemistry Lab II (1.0 cr)

**or Geology**

- GEOL 1110 - Geology and Earth Systems [LE CAT4, NAT SCI, SUSTAIN] (4.0 cr)

Take 2 or more course(s) from the following:



- GEOL 2110 - Earth History (4.0 cr)
- GEOL 2120 - The Earth's Dynamic Interior (3.0 cr)
- GEOL 2311 - Mineralogy (4.0 cr)
- GEOL 2312 - Petrology (5.0 cr)
- GEOL 3210 - Geomorphology (4.0 cr)
- GEOL 3420 - Sedimentology and Stratigraphy (4.0 cr)

or **Physics**

- PHYS 2013 - General Physics I [LE CAT5, NAT SCI] (4.0 cr)
- or PHYS 2017 - Honors: General Physics I [NAT SCI] (4.0 cr)
- PHYS 2014 - General Physics Lab I [NAT SCI] (1.0 cr)
- PHYS 2015 - General Physics II (4.0 cr)
- or PHYS 2018 - Honors General Physics II (4.0 cr)
- PHYS 2016 - General Physics Lab II (1.0 cr)

**Electives From Other Programs (4 cr)**

Additional science course that is a natural science with lab (or has such a course as a prerequisite). Courses are found in liberal education program of natural science with lab. The total number of credits for the additional science course and the science sequence must be at least 12 credits.



### **Duluth Campus**

## **Computer Science Minor**

*Computer Science*

### **Swenson College of Science and Engineering**

- Program Type: Undergraduate minor related to major
- Requirements for this program are current for Fall 2016
- Required credits in this minor: 30

Computer science is a discipline that requires understanding the design of computers and computational processes.

### **Program Delivery**

This program is available:

- via classroom (the majority of instruction is face-to-face)

### **Minor Requirements**

1. The computer science minor and computer science applied minor are not available to computer information systems technology majors.

#### **Minor Courses (19 cr)**

- CS 1511 - Computer Science I [LE CAT3, LOGIC & QR] (5.0 cr)  
or CS 1581 - Honors: Computer Science I [LE CAT3, LOGIC & QR] (5.0 cr)
- CS 1521 - Computer Science II (5.0 cr)
- CS 2511 - Software Analysis and Design (4.0 cr)
- MATH 1296 - Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)  
or MATH 1596 - Honors: Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)

#### **Electives (11 cr)**

CS courses must be at 35xx or above.

Take 11 or more credit(s) from the following:

- CS 3xxx
- CS 4xxx
- CS 5xxx
- EE 4341 - Digital Systems (4.0 cr)
- EE 4305 - Computer Architecture (4.0 cr)
- CS 2521 - Computer Organization and Architecture (4.0 cr)  
or EE 2325 - Microprocessor Systems (4.0 cr)



### Duluth Campus

## Electrical Engineering B.S.E.E.

Electrical Engineering

### Swenson College of Science and Engineering

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 130
- Required credits within the major: 112
- Degree: Bachelor of Science in Electrical Engineering

The electrical engineering B.S.E.E. program is concerned with the theory, design, and application of electrical phenomena. The department displays strengths in such diverse areas as microelectronics and VLSI, signal processing, electromagnetics, digital computer systems, automatic control, communications, and power and energy. The program balances theoretical and practical experience in electrical engineering through analysis, synthesis, and experimentation, using facilities that include major instructional laboratories and research laboratories.

The Bachelor of Science in Electrical Engineering is accredited by the Engineering Accreditation Commission of ABET, <http://www.abet.org>

### Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

### Admission Requirements

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

### General Requirements

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

### Program Requirements

1. EE majors must meet with their advisers each semester. See department for details.
2. Completion of the EE "Exit Survey," and a one-to-one exit interview with the EE department head.

#### EE Requirements (37 cr)

- [EE 1001](#) - Introduction to Electrical Engineering (2.0 cr)
- [EE 1315](#) - Digital Logic (4.0 cr)
- [EE 2006](#) - Electrical Circuit Analysis (4.0 cr)

EE 2111 - Linear Systems and Signal Analysis (4.0 cr)  
 EE 2212 - Electronics I (4.0 cr)  
 EE 2325 - Microprocessor Systems (4.0 cr)  
 EE 3151 - Control Systems (4.0 cr)  
 EE 3235 - Electronics II (4.0 cr)  
 EE 3445 - Electromagnetic Fields (3.0 cr)  
 EE 4899 - Senior Design Project I (1.0 cr)  
 EE 4999 - Senior Design Project II (3.0 cr)  
 or EE 4951 - Design Workshop (4.0 cr)

### EE Electives (21 cr)

Minimum one course from four out of the five areas of specialization. The rest of the credits can be filled from any of the five areas. With approval, students may also take EE 5995 Special Topics course; group assigned will depend upon topics title.

Take 21 or more credit(s) from the following:

#### Communications and Signal Processing

- EE 5477 - Antennas and Transmission Lines (3.0 cr)  
 or EE 5479 - Antennas and Transmission Lines Laboratory (1.0 cr)  
 or EE 5741 - Digital Signal Processing (3.0 cr)  
 or EE 5745 - Medical Imaging (3.0 cr)  
 or EE 5765 - Modern Communication (4.0 cr)

#### Controls and Robotics

- EE 5151 - Digital Control System Design (3.0 cr)  
 or EE 5351 - Introduction to Robotics and Mobile Robot Control Architectures (3.0 cr)  
 or EE 5742 - Pattern Recognition and Machine Learning (4.0 cr)  
 or EE 5801 - Introduction to Artificial Neural Networks (3.0 cr)  
 or EE 5831 - Fuzzy Set Theory and Its Application (3.0 cr)

#### Digital Systems

- EE 4305 - Computer Architecture (4.0 cr)  
 or EE 4321 - Computer Networks (3.0 cr)  
 or EE 4341 - Digital Systems (4.0 cr)  
 or EE 5315 - Multiprocessor-Based System Design (3.0 cr)

#### Microelectronics and VLSI

- EE 4311 - Design of Very Large-Scale Integrated Circuits (3.0 cr)  
 or EE 4611 - Introduction to Solid-State Semiconductors (3.0 cr)  
 or EE 5211 - Advanced Analog Integrated Circuit Design (3.0 cr)  
 or EE 5611 - Microelectronics Technology (3.0 cr)

#### Power and Energy

- EE 4501 - Power Systems (4.0 cr)  
 or EE 5501 - Energy Conversion System (3.0 cr)  
 or EE 5522 - Power Electronics I (3.0 cr)  
 or EE 5533 - Grid- Resiliency, Efficiency and Technology (3.0 cr)

### Non-EE Electives (3 cr)

Take 3 or more credit(s) from the following:

- CE 2017 - Engineering Mechanics: Statics and Mechanics of Materials (5.0 cr)
- CHE 2001 - Introduction to Environmental Engineering (3.0 cr)
- CHE 2111 - Material and Energy Balances (3.0 cr)
- IE 3115 - Operations Research (4.0 cr)
- ME 2105 - Introduction to Material Science for Engineers (3.0 cr)

### Courses From Other Programs (51 cr)

First math course is determined by the ACT math score. This schedule presupposes placement into Math 1296.

#### Chemistry

- CHEM 1153 - General Chemistry I [LE CAT5, NAT SCI] (4.0 cr)
- CHEM 1154 - General Chemistry Lab I [LE CAT4, NAT SCI] (1.0 cr)

#### Computer Science

- CS 1511 - Computer Science I [LE CAT3, LOGIC & QR] (5.0 cr)
- or CS 1581 - Honors: Computer Science I [LE CAT3, LOGIC & QR] (5.0 cr)

#### Economics

- ECON 1022 - Principles of Economics: Macro [LE CAT6, SOC SCI] (3.0 cr)
- or ECON 1023 - Principles of Economics: Micro [LE CAT6, SOC SCI] (3.0 cr)

#### Math and Stats

- MATH 1296 - Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)
- or MATH 1596 - Honors: Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)
- MATH 1297 - Calculus II [LOGIC & QR] (5.0 cr)



or [MATH 1597](#) - Honors: Calculus II [LOGIC & QR] (5.0 cr)

[MATH 3280](#) - Differential Equations with Linear Algebra (4.0 cr)

[MATH 3298](#) - Calculus III (4.0 cr)

[STAT 3611](#) - Introduction to Probability and Statistics (4.0 cr)

**Ethics**

[CS 3111](#) - Computer Ethics [HUMANITIES] (4.0 cr)

or [PHIL 3242](#) - Values and Technology [LE CAT8, HUMANITIES] (3.0 cr)

or [PHIL 3325](#) - Environmental Ethics [HUMANITIES, SUSTAIN] (4.0 cr)

**Physics**

[PHYS 2013](#) - General Physics I [LE CAT5, NAT SCI] (4.0 cr)

or [PHYS 2017](#) - Honors: General Physics I [NAT SCI] (4.0 cr)

[PHYS 2014](#) - General Physics Lab I [NAT SCI] (1.0 cr)

[PHYS 2015](#) - General Physics II (4.0 cr)

or [PHYS 2018](#) - Honors General Physics II (4.0 cr)

[PHYS 2016](#) - General Physics Lab II (1.0 cr)

**Writing**

[WRIT 3130](#) - Advanced Writing: Engineering (3.0 cr)



### Duluth Campus

## Electrical Engineering Minor

Electrical Engineering

### Swenson College of Science and Engineering

- Program Type: Undergraduate minor related to major
- Requirements for this program are current for Fall 2016
- Required credits in this minor: 43 to 44

The Electrical Engineering minor provides students with basic knowledge and skills needed to understand electrical circuits, signal analysis, electronics and digital systems. It provides high quality education in electrical engineering related topics that will prepare students for employment opportunities in the private and public sectors.

### Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

### Minor Requirements

#### Lower Division (40 cr)

##### Engineering

- EE 1315 - Digital Logic (4.0 cr)
- EE 2006 - Electrical Circuit Analysis (4.0 cr)
- EE 2111 - Linear Systems and Signal Analysis (4.0 cr)
- EE 2212 - Electronics I (4.0 cr)

##### Math

- MATH 1296 - Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)  
or MATH 1596 - Honors: Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)
- MATH 1297 - Calculus II [LOGIC & QR] (5.0 cr)  
or MATH 1597 - Honors: Calculus II [LOGIC & QR] (5.0 cr)
- MATH 3280 - Differential Equations with Linear Algebra (4.0 cr)

##### Physics

- PHYS 2013 - General Physics I [LE CAT5, NAT SCI] (4.0 cr)  
or PHYS 2017 - Honors: General Physics I [NAT SCI] (4.0 cr)
- PHYS 2014 - General Physics Lab I [NAT SCI] (1.0 cr)
- PHYS 2015 - General Physics II (4.0 cr)
- PHYS 2016 - General Physics Lab II (1.0 cr)

#### Upper Division (3 - 4 cr)

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

- EE 3151 - Control Systems (4.0 cr)
- EE 3235 - Electronics II (4.0 cr)
- EE 3445 - Electromagnetic Fields (3.0 cr)
- EE 4501 - Power Systems (4.0 cr)
- EE 4611 - Introduction to Solid-State Semiconductors (3.0 cr)

### Duluth Campus

## Energy Engineering Minor

Electrical Engineering

### Swenson College of Science and Engineering

- Program Type: Undergraduate free-standing minor
- Requirements for this program are current for Fall 2016
- Required credits in this minor: 39
- none

The energy engineering minor provides students with basic knowledge and skills needed to understand, address, and make effective decisions about the generation, production, utilization, and application of energy. It provides high quality education in energy-related topics that will prepare students for employment opportunities in the private and public sectors, graduate studies, and research.

This interdisciplinary minor, administered by the Department of Electrical and Computer Engineering, is designed for students with majors in engineering. However, students with majors in other disciplines may also apply, should they meet the course prerequisites. The coursework provides broad-based science and engineering knowledge suited to energy generation, production, utilization, and application. The minor enhances degrees in engineering.

### Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

### Minor Requirements

#### Pre-Minor Core (23 cr)

##### Chemistry

- CHEM 1153 - General Chemistry I [LE CAT5, NAT SCI] (4.0 cr)
- CHEM 1154 - General Chemistry Lab I [LE CAT4, NAT SCI] (1.0 cr)

##### Math

- MATH 1296 - Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)
- or MATH 1596 - Honors: Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)
- MATH 1297 - Calculus II [LOGIC & QR] (5.0 cr)
- or MATH 1597 - Honors: Calculus II [LOGIC & QR] (5.0 cr)
- MATH 3280 - Differential Equations with Linear Algebra (4.0 cr)

##### Physics

- PHYS 2013 - General Physics I [LE CAT5, NAT SCI] (4.0 cr)
- or PHYS 2017 - Honors: General Physics I [NAT SCI] (4.0 cr)
- PHYS 2014 - General Physics Lab I [NAT SCI] (1.0 cr)

#### Core Courses (10 cr)

- EE 2006 - Electrical Circuit Analysis (4.0 cr)
- CHE 2111 - Material and Energy Balances (3.0 cr)
- CHE 2121 - Chemical Engineering Thermodynamics (3.0 cr)
- or ME 2211 - Thermodynamics [SUSTAIN] (3.0 cr)

#### Electives (6 cr)

Take 6 or more credit(s) from the following:

- CE 5515 - Sustainable Design and Construction (SUSTAIN) (3.0 cr)
- CHE 4603 - Biorenewable Resources [SUSTAIN] (3.0 cr)
- CHE 4612 ~~(Inactive)~~ (3.0 cr)
- EE 4501 - Power Systems (4.0 cr)
- ME 4050 - Fundamentals of Nuclear Engineering (3.0 cr)
- ME 4375 - Pipeline Engineering (3.0 cr)
- EE 5501 - Energy Conversion System (3.0 cr)
- or ME 5325 - Sustainable Energy System (3.0 cr)



### Duluth Campus

## Environmental Engineering Minor

Chemical Engineering

### Swenson College of Science and Engineering

- Program Type: Undergraduate free-standing minor
- Requirements for this program are current for Fall 2016
- Required credits in this minor: 54 to 57

The environmental engineering minor develops a student's ability to understand and address environmental concerns. Coursework provides broad-based science and engineering knowledge suited to pollution prevention and waste management. The minor enhances degrees in science or other engineering fields.

### Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

### Minor Requirements

#### Lower Division (38-39 cr)

##### Chemistry I

- [CHEM 1153](#) - General Chemistry I [LE CAT5, NAT SCI] (4.0 cr)
- [CHEM 1154](#) - General Chemistry Lab I [LE CAT4, NAT SCI] (1.0 cr)

##### Chemistry II

- [CHEM 1155](#) - General Chemistry II (4.0 cr)
- [CHEM 1156](#) - General Chemistry Lab II (1.0 cr)

##### Chemical Engineering

- [CHE 2111](#) - Material and Energy Balances (3.0 cr)
- [CHE 1011](#) - Introduction to Chemical Engineering. [LE CAT5] (3.0 cr)  
or [CHE 2001](#) - Introduction to Environmental Engineering (3.0 cr)

##### Analytical Chemistry

- [CHEM 2212](#) - Environmental Chemistry [NAT SCI, SUSTAIN] (4.0 cr)
- or [CHEM 2222](#) - Quantitative Analysis (3.0 cr)
- [CHEM 2223](#) - Quantitative Analysis Laboratory (1.0 cr)

##### Math

- [MATH 1290](#) - Calculus for the Natural Sciences [LE CAT2, LOGIC & QR] (5.0 cr)  
or [MATH 1296](#) - Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)  
or [MATH 1596](#) - Honors: Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)
- [MATH 1297](#) - Calculus II [LOGIC & QR] (5.0 cr)  
or [MATH 1597](#) - Honors: Calculus II [LOGIC & QR] (5.0 cr)

##### Physics

- [PHYS 2013](#) - General Physics I [LE CAT5, NAT SCI] (4.0 cr)  
or [PHYS 2017](#) - Honors: General Physics I [NAT SCI] (4.0 cr)
- [PHYS 2014](#) - General Physics Lab I [NAT SCI] (1.0 cr)

##### Electives

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

- [CHE 2011](#) - Design of Engineering Experiments (3.0 cr)
- [STAT 2411](#) - Statistical Methods [LE CAT2, LOGIC & QR] (3.0 cr)
- [STAT 3411](#) - Engineering Statistics (3.0 cr)
- [STAT 3611](#) - Introduction to Probability and Statistics (4.0 cr)

#### Upper Division Requirements (10 cr)

Students taking CE 3025 should replace CHE 1011 or CHE 2001 with an additional upper division elective.

- [MATH 3280](#) - Differential Equations with Linear Algebra (4.0 cr)
- [CE 3221](#) - Fluid Mechanics (3.0 cr)  
or [CHE 3111](#) - Fluid Mechanics (3.0 cr)  
or [ME 3111](#) - Fluid Mechanics (3.0 cr)
- [CE 3025](#) - Environmental Engineering (3.0 cr)  
or [CHE 3112](#) - Heat and Mass Transfer (3.0 cr)  
or [ME 4112](#) - Heat and Mass Transfer (3.0 cr)



### Upper Division Electives (6-8 cr)

Other upper division electives may be substituted subject to department approval.

Take 2 or more course(s) from the following:

- BIOL 5807 - Mathematical Ecology (3.0 cr)
- CE 3225 - Hydraulics and Hydrology (4.0 cr)
- CE 4215 - Hydraulic Design (3.0 cr)
- CE 4226 - Water Resources Engineering (3.0 cr)
- CE 4237 - Water Quality Engineering (3.0 cr)
- CE 4256 - Design of Water and Waste Water Treatment Plants (3.0 cr)
- CE 4257 - Municipal Solid Waste Management and Hazardous Waste Systems (3.0 cr)
- CE 4421 - Applied Geostatistics (3.0 cr)
- CE 4515 - Sustainable Design and Construction [SUSTAIN] (3.0 cr)
- CE 5201 - Water Policy (3.0 cr)
- CE 5216 - Applications in Environmental Modeling (3.0 cr)
- CE 5226 - Water Resources Engineering (3.0 cr)
- CE 5237 - Water Quality Engineering (3.0 cr)
- CE 5251 ~~(Inactive)~~(4.0 cr)
- CE 5410 - Finite Element Methods for Civil Engineering Applications (3.0 cr)
- CE 5421 - Applied Geostatistics (3.0 cr)
- CE 5515 - Sustainable Design and Construction (SUSTAIN) (3.0 cr)
- CHE 4601 - Biochemical Engineering I (3.0 cr)
- CHE 4603 - Biorenewable Resources [SUSTAIN] (3.0 cr)
- CHE 4612 ~~(Inactive)~~(3.0 cr)
- CHE 4613 - Air Pollution Control (3.0 cr)
- CHE 5601 - Biochemical Engineering I (3.0 cr)
- CHE 5602 - Bioseparations (3.0 cr)
- CHE 5610 - Recycling Process Engineering (3.0 cr)
- CHE 5612 - Hazardous Waste Process Engineering (3.0 cr)
- CHE 5642 - Mining and Environmental Quality (3.0 cr)
- ES 3500 - Ecological Economics (3.0 cr)
- ESCI 3201 - Mineral Resources (3.0 cr)
- ESCI 3202 - Energy Resources (3.0 cr)
- GEOL 3100 - Earth's Climate and Environment: Past and Future (3.0 cr)
- GEOL 5240 - Physical Hydrogeology (4.0 cr)
- GEOL 5250 - Environmental Hydrogeology (4.0 cr)
- ME 4050 - Fundamentals of Nuclear Engineering (3.0 cr)
- ME 4365 - Global Sustainability Experience in Design/Manufacturing in Africa (3.0 cr)
- ME 5305 - Computational Fluid Dynamics (3.0 cr)
- ME 5325 - Sustainable Energy System (3.0 cr)

### **Duluth Campus**

## **Environmental Science B.S.**

*Swenson College of Science & Engineering*

### **Swenson College of Science and Engineering**

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 120
- Required credits within the major: 95 to 100
- Degree: Bachelor of Science

The B.S. in environmental science is designed for students who want a multidisciplinary science education focusing on aspects of the environment. This environmental science program requires a broad base of knowledge in the basic sciences and mathematics, physics, chemistry, biology, Earth sciences, and statistics. In addition, prudent study of environmental science requires understanding of economic, political, and ethical considerations. Environmental science features an intense grounding in resource issues (including courses in renewable and non-renewable resources) and builds on the strength of UMD in freshwater issues. In addition, the capstone course deals with sources, distribution, and ultimate fate of air, water, and solid waste pollution. Elective courses from areas such as habitats, climate processes, environmental chemistry, quantitative methods, and global resources are also required.

The program is predicated on the belief that a student graduating with a B.S. in environmental science should have a firm background in physical and life sciences and a basic understanding of 1) existing environmental policies and regulations and the legislative process of their formation; 2) the major environmental issues including water, global climate, energy, pollution, and population; 3) techniques of environmental monitoring and prediction; and 4) economics and business organization.

### **Program Delivery**

This program is available:

- via classroom (the majority of instruction is face-to-face)

### **Admission Requirements**

For entering freshmen, the only admission requirement is acceptance into the College of Science and Engineering. Transfer students must meet campus and college requirements and are accepted into the program at the level corresponding to credits completed, based on existing transfer manuals and on faculty judgment when courses are not in existing manuals.

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

### **General Requirements**

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

### **Program Requirements**

**Required Environmental Science Core (16 cr)**

- CHE 4613 - Air Pollution Control (3.0 cr)
- ESCI 2210 - Environmental Characterization and Monitoring (4.0 cr)
- ESCI 3201 - Mineral Resources (3.0 cr)
- ESCI 3202 - Energy Resources (3.0 cr)
- ESCI 4102 - Environmental Assessment (3.0 cr)

**Required Courses From Other Programs (61 - 63 cr)****Biology**

- BIOL 1011 - General Biology I [LE CAT4, NAT SCI] (5.0 cr)
- BIOL 1012 - General Biology II [SUSTAIN] (5.0 cr)
- BIOL 2801 - General Ecology (3.0 cr)
- BIOL 2802 - Ecology Laboratory (2.0 cr)

**Chemistry I**

- CHEM 1153 - General Chemistry I [LE CAT5, NAT SCI] (4.0 cr)
- CHEM 1154 - General Chemistry Lab I [LE CAT4, NAT SCI] (1.0 cr)

**Chemistry II**

- CHEM 1155 - General Chemistry II (4.0 cr)
- CHEM 1156 - General Chemistry Lab II (1.0 cr)

**Analytical Chemistry**

- CHEM 2212 - Environmental Chemistry [NAT SCI, SUSTAIN] (4.0 cr)
- or CHEM 2222 - Quantitative Analysis (3.0 cr)
- CHEM 2223 - Quantitative Analysis Laboratory (1.0 cr)

**Economics**

- ECON 1022 - Principles of Economics: Macro [LE CAT6, SOC SCI] (3.0 cr)
- or ECON 1023 - Principles of Economics: Micro [LE CAT6, SOC SCI] (3.0 cr)

**Geology**

- GEOL 1110 - Geology and Earth Systems [LE CAT4, NAT SCI, SUSTAIN] (4.0 cr)
- GEOL 3100 - Earth's Climate and Environment: Past and Future (3.0 cr)
- or GEOG 3401 - Weather and Climate (3.0 cr)

**Math**

- MATH 1290 - Calculus for the Natural Sciences [LE CAT2, LOGIC & QR] (5.0 cr)
- or MATH 1296 - Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)
- or MATH 1596 - Honors: Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)
- MATH 1297 - Calculus II [LOGIC & QR] (5.0 cr)
- or MATH 1597 - Honors: Calculus II [LOGIC & QR] (5.0 cr)

**Physics I**

- PHYS 2013 - General Physics I [LE CAT5, NAT SCI] (4.0 cr)
- or PHYS 2017 - Honors: General Physics I [NAT SCI] (4.0 cr)
- PHYS 2014 - General Physics Lab I [NAT SCI] (1.0 cr)

**Physics II**

- PHYS 2015 - General Physics II (4.0 cr)
- or PHYS 2018 - Honors General Physics II (4.0 cr)
- PHYS 2016 - General Physics Lab II (1.0 cr)

**Statistics**

- STAT 2411 - Statistical Methods [LE CAT2, LOGIC & QR] (3.0 cr)
- or STAT 3411 - Engineering Statistics (3.0 cr)
- or STAT 3611 - Introduction to Probability and Statistics (4.0 cr)

**Writing**

- WRIT 3150 - Advanced Writing: Science (3.0 cr)

**Water Science Electives (8-11 cr)**

Must include three courses, at least one course each from Group A and B. Courses used to satisfy a water science elective may not be used to satisfy a concentration elective. At least one course used to fill the water science electives or the concentration electives must have a laboratory or field component.

Take 3 or more course(s) totaling 8 - 11 credit(s) from the following:

**Group A Groundwater**

Take 1 - 2 course(s) from the following:

- GEOL 5240 - Physical Hydrogeology (4.0 cr)
- GEOL 5250 - Environmental Hydrogeology (4.0 cr)
- GEOL 4710 - Aqueous Geochemistry (4.0 cr)
- GEOL 5251 - Well Hydraulics (3.0 cr)

**Group B Surface Water**

Take 1 - 2 course(s) from the following:

- BIOL 3760 - Marine Biology (3.0 cr)



- BIOL 3761 - Field Studies in Marine Biology (4.0 cr)
- BIOL 3830 - Aquatic Food Webs (3.0 cr)
- BIOL 3835 - Freshwater Ecology (3.0 cr)
- BIOL 5777 - Plankton Biology (2.0 cr)
- BIOL 5805 - Fisheries Ecology (3.0 cr)
- BIOL 5833 - Stream Ecology (3.0 cr)
- BIOL 5861 - Lake Ecology (3.0 cr)
- BIOL 5870 - Wetland Ecology (3.0 cr)
- GEOG 4446 - Water Processes and Management (3.0 cr)
- LIM 5004 - Field Limnology (2.0 cr)
- LIM 5101 - Physical Limnology (3.0 cr)
- LIM 5102 - Chemical Limnology (3.0 cr)
- LIM 5103 - Geological Limnology (3.0 cr)
- BIOL 4839 - Coral Reef Field Studies (3.0 cr)  
or GEOL 4839 - Coral Reef Geology (3.0 cr)

**Concentration Electives (10 cr)**

Courses can be distributed among the groups in any combination. Discuss with advisor the benefits of breadth (credits in several concentrations) versus depth (credits in a particular concentration).

Take 10 or more credit(s) from the following:

**Climate Processes**

Take 0 - 10 credit(s) from the following:

- GEOG 3422 - Natural Hazards (3.0 cr)
- GEOG 4446 - Water Processes and Management (3.0 cr)
- GEOL 3210 - Geomorphology (4.0 cr)
- GEOL 5210 - Glacial and Quaternary Geology (4.0 cr)
- GEOL 5220 - Advances in Paleoclimatology (3.0 cr)
- LIM 5103 - Geological Limnology (3.0 cr)
- GEOL 3100 - Earth's Climate and Environment: Past and Future (3.0 cr)  
or GEOG 3401 - Weather and Climate (3.0 cr)

**Environmental Chemistry**

Take 0 - 10 credit(s) from the following:

- CHEM 2541 - Organic Chemistry I (3.0 cr)
- CHEM 2542 - Organic Chemistry II (3.0 cr)
- CHEM 2543 - Organic Chemistry I Laboratory (1.0 cr)
- CHEM 2544 - Organic Chemistry II Laboratory (1.0 cr)
- GEOL 3710 - Introduction to Geochemistry (3.0 cr)
- GEOL 4710 - Aqueous Geochemistry (4.0 cr)
- LIM 5102 - Chemical Limnology (3.0 cr)

**Global Resources**

Take 0 - 10 credit(s) from the following:

- ECON 3721 - Natural Resource and Energy Economics (3.0 cr)
- ECON 3777 - Environmental Economics (3.0 cr)
- GEOG 3461 - Geography of Global Resources [SUSTAIN] (3.0 cr)
- GEOG 4451 - The Geography of Soils (4.0 cr)
- GEOL 3800 - Principles of Geophysics (4.0 cr)
- GEOL 5240 - Physical Hydrogeology (4.0 cr)
- GEOL 5250 - Environmental Hydrogeology (4.0 cr)
- GEOL 4355 - Economic Geology (4.0 cr)

**Habitats**

Take 0 - 10 credit(s) from the following:

- BIOL 3760 - Marine Biology (3.0 cr)
- BIOL 3761 - Field Studies in Marine Biology (4.0 cr)
- BIOL 3830 - Aquatic Food Webs (3.0 cr)
- BIOL 5777 - Plankton Biology (2.0 cr)
- BIOL 5801 - Microbial Ecology (2.0 cr)
- BIOL 5802 - Microbial Ecology Laboratory (2.0 cr)
- BIOL 5805 - Fisheries Ecology (3.0 cr)
- BIOL 5808 - Landscape Ecology: Theory and Application (3.0 cr)
- BIOL 5833 - Stream Ecology (3.0 cr)
- BIOL 5861 - Lake Ecology (3.0 cr)
- BIOL 5865 - Conservation Biology (2.0 cr)
- BIOL 5870 - Wetland Ecology (3.0 cr)
- BIOL 4839 - Coral Reef Field Studies (3.0 cr)  
or GEOL 4839 - Coral Reef Geology (3.0 cr)

**•Quantitative Methods**

Take 0 - 10 credit(s) from the following:

- BIOL 5807 - Mathematical Ecology (3.0 cr)
- CHE 2111 - Material and Energy Balances (3.0 cr)
- CHE 2121 - Chemical Engineering Thermodynamics (3.0 cr)
- CHE 3111 - Fluid Mechanics (3.0 cr)
- CHE 5022 - Transport Processes in Wells and Pipelines (3.0 cr)
- GEOL 5215 ~~(Inactive)~~(3.0 cr)
- GIS 3563 - Geographic Information Science I: Theory and Analysis (4.0 cr)
- GIS 3564 - Geographic Information Science II: Applied GIS (4.0 cr)
- GIS 5572 - Environmental Application of GIS (4.0 cr)
- GIS 5581 - Digital Image Processing and Analysis (4.0 cr)
- LIM 5004 - Field Limnology (2.0 cr)
- LIM 5101 - Physical Limnology (3.0 cr)
- MATH 3280 - Differential Equations with Linear Algebra (4.0 cr)
- PHYS 5053 - Data Analysis Methods in Physics (3.0 cr)
- PHYS 5541 - Fluid Dynamics (3.0 cr)
- STAT 5411 - Analysis of Variance (3.0 cr)



## Duluth Campus

# Environmental Science Minor

Swenson College of Science & Engineering

## Swenson College of Science and Engineering

- Program Type: Undergraduate minor related to major
- Requirements for this program are current for Fall 2016
- Required credits in this minor: 28
- None

The environmental science minor enhances a student's understanding of the scope of environmental problems, the biochemical and physical processes of environmental degradation, the sciences of non-renewable and renewable resources, and economic and political issues surrounding environmental problems. The minor provides valuable background for many environmental careers and applications.

## Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

## Minor Requirements

### ES Minor Requirements (24 cr)

[GEOL 1110](#) - Geology and Earth Systems [LE CAT4, NAT SCI, SUSTAIN] (4.0 cr)

[ESCI 2210](#) - Environmental Characterization and Monitoring (4.0 cr)

[ESCI 3201](#) - Mineral Resources (3.0 cr)

[ESCI 3202](#) - Energy Resources (3.0 cr)

### Chemistry I

[CHEM 1153](#) - General Chemistry I [LE CAT5, NAT SCI] (4.0 cr)

[CHEM 1154](#) - General Chemistry Lab I [LE CAT4, NAT SCI] (1.0 cr)

### Chemistry II

[CHEM 1155](#) - General Chemistry II (4.0 cr)

[CHEM 1156](#) - General Chemistry Lab II (1.0 cr)

### Minor Electives (4 cr)

Take 2 or more course(s) totaling 4 or more credit(s) from the following:

- [BIOL 3760](#) - Marine Biology (3.0 cr)
- [BIOL 3761](#) - Field Studies in Marine Biology (4.0 cr)
- [BIOL 3830](#) - Aquatic Food Webs (3.0 cr)
- [BIOL 3835](#) - Freshwater Ecology (3.0 cr)
- [BIOL 4803](#) ~~(Inactive)~~ (4.0 cr)
- [BIOL 4805](#) ~~(Inactive)~~ (2.0 cr)
- [BIOL 5777](#) - Plankton Biology (2.0 cr)
- [BIOL 5801](#) - Microbial Ecology (2.0 cr)
- [BIOL 5802](#) - Microbial Ecology Laboratory (2.0 cr)
- [BIOL 5805](#) - Fisheries Ecology (3.0 cr)
- [BIOL 5807](#) - Mathematical Ecology (3.0 cr)
- [BIOL 5808](#) - Landscape Ecology: Theory and Application (3.0 cr)
- [BIOL 5833](#) - Stream Ecology (3.0 cr)
- [BIOL 5861](#) - Lake Ecology (3.0 cr)
- [BIOL 5863](#) - Ecosystems Ecology (3.0 cr)
- [BIOL 5865](#) - Conservation Biology (2.0 cr)
- [BIOL 5868](#) - Ecotoxicology (3.0 cr)
- [BIOL 5869](#) - Great Lakes Ecology and Management (3.0 cr)
- [BIOL 5870](#) - Wetland Ecology (3.0 cr)
- [CHE 2111](#) - Material and Energy Balances (3.0 cr)
- [CHE 2121](#) - Chemical Engineering Thermodynamics (3.0 cr)
- [CHE 3111](#) - Fluid Mechanics (3.0 cr)
- [CHE 5022](#) - Transport Processes in Wells and Pipelines (3.0 cr)
- [CHEM 2541](#) - Organic Chemistry I (3.0 cr)
- [CHEM 2542](#) - Organic Chemistry II (3.0 cr)



- CHEM 2543 - Organic Chemistry I Laboratory (1.0 cr)
- CHEM 2544 - Organic Chemistry II Laboratory (1.0 cr)
- ECON 3721 - Natural Resource and Energy Economics (3.0 cr)
- ECON 3777 - Environmental Economics (3.0 cr)
- ESCI 4101 ~~{Inactive}~~(3.0 cr)
- GEOG 3422 - Natural Hazards (3.0 cr)
- GEOG 3461 - Geography of Global Resources [SUSTAIN] (3.0 cr)
- GEOG 4446 - Water Processes and Management (3.0 cr)
- GEOG 4451 - The Geography of Soils (4.0 cr)
- GEOL 3210 - Geomorphology (4.0 cr)
- GEOL 3710 - Introduction to Geochemistry (3.0 cr)
- GEOL 3800 - Principles of Geophysics (4.0 cr)
- GEOL 5210 - Glacial and Quaternary Geology (4.0 cr)
- GEOL 5240 - Physical Hydrogeology (4.0 cr)
- GEOL 5250 - Environmental Hydrogeology (4.0 cr)
- GEOL 4355 - Economic Geology (4.0 cr)
- GEOL 4710 - Aqueous Geochemistry (4.0 cr)
- GEOL 5215 ~~{Inactive}~~(3.0 cr)
- GEOL 5220 - Advances in Paleoclimatology (3.0 cr)
- GEOL 5251 - Well Hydraulics (3.0 cr)
- GIS 3563 - Geographic Information Science I: Theory and Analysis (4.0 cr)
- GIS 5572 - Environmental Application of GIS (4.0 cr)
- GIS 5581 - Digital Image Processing and Analysis (4.0 cr)
- LIM 5004 - Field Limnology (2.0 cr)
- LIM 5101 - Physical Limnology (3.0 cr)
- LIM 5102 - Chemical Limnology (3.0 cr)
- LIM 5103 - Geological Limnology (3.0 cr)
- MATH 3280 - Differential Equations with Linear Algebra (4.0 cr)
- PHYS 5043 ~~{Inactive}~~(3.0 cr)
- PHYS 5053 - Data Analysis Methods in Physics (3.0 cr)
- PHYS 5541 - Fluid Dynamics (3.0 cr)
- STAT 5411 - Analysis of Variance (3.0 cr)
- BIOL 4839 - Coral Reef Field Studies (3.0 cr)  
or GEOL 4839 - Coral Reef Geology (3.0 cr)
- GEOL 3100 - Earth's Climate and Environment: Past and Future (3.0 cr)  
or GEOG 3401 - Weather and Climate (3.0 cr)

### Duluth Campus

## Geological Sciences B.A.

*D Earth & Environmental Sci*

### Swenson College of Science and Engineering

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 120
- Required credits within the major: 61 to 64
- This program requires summer terms.
- Degree: Bachelor of Arts

Geological sciences is the scientific study of the origin, history, and structure of the Earth. The study of geology requires a broad base of knowledge in related sciences and mathematics.

The B.A. in geological sciences provides an appropriate educational background for work in areas related to environmental studies, land use planning, and other fields requiring sensitivity to Earth systems.

Honors Requirements: To attain departmental honors, students must undertake an independent research project and maintain a cumulative overall GPA of 3.00. The research can be part of a UROP, directed research, independent study, or an internship with a faculty member. Students must either make a brief oral presentation to the department summarizing their results and produce a research paper (minimum 10 pages) OR give an oral or poster presentation of their research results at a regional or national meeting (e.g. GSA, AGU, ILSG, or similar campus event).

### Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

### Admission Requirements

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

#### Required prerequisites

##### Introductory Requirement (1 cr)

Transfer students with 24 or more credits and current students who change from a B.S. degree or change colleges may request to be waived from this requirement. New first-year students with 24 or more PSEO credits may request to be waived from this requirement. [UST 1000](#) - UMD Seminar (1.0 - 2.0 cr)

### General Requirements

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.



## Program Requirements

1. Second field of study (either a minor or another major).
2. Math courses determined by Math ACT score.

### Geology Core Courses (38-39 cr)

- GEOL 2110 - Earth History (4.0 cr)
- GEOL 2120 - The Earth's Dynamic Interior (3.0 cr)
- GEOL 2311 - Mineralogy (4.0 cr)
- GEOL 2312 - Petrology (5.0 cr)
- GEOL 3210 - Geomorphology (4.0 cr)
- GEOL 3420 - Sedimentology and Stratigraphy (4.0 cr)
- GEOL 4450 - Structural Geology (5.0 cr)
- GEOL 4500 - Field Geology (6.0 cr)

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

- GEOL 1110 - Geology and Earth Systems [LE CAT4, NAT SCI, SUSTAIN] (4.0 cr)
- GEOL 1130 - Introduction to Environmental Science [LE CAT4, LEIP CAT04, NAT SCI, SUSTAIN] (4.0 cr)
- GEOL 1610 - Oceanography [LE CAT5, NAT SCI, SUSTAIN] (3.0 cr)
- GEOG 1414 - Physical Geography [LE CAT4, NAT SCI, SUSTAIN] (4.0 cr)

### Advanced Electives (6 cr)

GEOL 4110 or 4180 cannot be used.

Take 6 or more credit(s) from the following:

- ESCI 3202 - Energy Resources (3.0 cr)
- GEOL 3xxx
- GEOL 4xxx
- GEOL 5xxx
- GIS 3563 - Geographic Information Science I: Theory and Analysis (4.0 cr)
- LIM 5xxx

### Chemistry requirement (10 cr)

Take one of the following course sequences:

- CHEM 1113 - Introduction to General, Organic, and Biological Chemistry I [LE CAT4, NAT SCI] (5.0 cr)
- CHEM 1114 - Introduction to General, Organic, and Biological Chemistry II (5.0 cr)
- or CHEM 1153 - General Chemistry I [LE CAT5, NAT SCI] (4.0 cr)
- CHEM 1154 - General Chemistry Lab I [LE CAT4, NAT SCI] (1.0 cr)
- CHEM 1155 - General Chemistry II (4.0 cr)
- CHEM 1156 - General Chemistry Lab II (1.0 cr)

### Math Requirement (3-5 cr)

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

- MATH 1250 - Precalculus Analysis [LE CAT2, LOGIC & QR] (4.0 cr)
- MATH 1290 - Calculus for the Natural Sciences [LE CAT2, LOGIC & QR] (5.0 cr)
- MATH 1296 - Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)
- or MATH 1596 - Honors: Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)
- STAT 2411 - Statistical Methods [LE CAT2, LOGIC & QR] (3.0 cr)

### Advanced Writing Requirement (3 cr)

- WRIT 3150 - Advanced Writing: Science (3.0 cr)

### Duluth Campus

## Geological Sciences BS

*D Earth & Environmental Sci*

### Swenson College of Science and Engineering

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 120
- Required credits within the major: 84 to 97
- This program requires summer terms.
- Degree: Bachelor of Science

The study of geology provides ways of understanding and appreciating dynamic earth processes, our physical environment, and our place in the long and complex history of the planet and solar system. It is by nature interdisciplinary and attracts students with broad interest in earth science, archaeology, astronomy, biology, chemistry, engineering, environmental science, applied mathematics, oceanography, limnology and/or physics. The BS degree in geological sciences can lead to rewarding careers in industry, government, conservation, law, business, and academia.

Geology requires a solid base of knowledge in related sciences (chemistry and physics) and mathematics, as well as a solid core of geology courses. A summer course in field mapping is also required.

The BS degree with the exploration and mining track is designed for students interested in a career in the exploration and mining industries. The track includes a solid core of geoscience courses with a focus on courses related to exploration and mining geology. A summer course in field mapping is also required.

Honors requirements: To attain department honors, students must undertake an independent research project and maintain a cumulative overall GPA of 3.00. The research can be part of a UROP, directed research, independent study, or an internship with a faculty member. Students must either make a brief oral presentation to the department summarizing their results and produce a research paper (minimum 10 pages) OR give an oral or poster presentation of their research results at a regional or national meeting (e.g., GSA, AGU, ILSG, or similar campus event).

### Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

### Admission Requirements

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

### General Requirements

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

## Program Requirements

1. A second field of study (either a minor or another major).

### Geology Core Courses (42-43 cr)

- GEOL 2110 - Earth History (4.0 cr)
- GEOL 2120 - The Earth's Dynamic Interior (3.0 cr)
- GEOL 2311 - Mineralogy (4.0 cr)
- GEOL 2312 - Petrology (5.0 cr)
- GEOL 3210 - Geomorphology (4.0 cr)
- GEOL 3420 - Sedimentology and Stratigraphy (4.0 cr)
- GEOL 3800 - Principles of Geophysics (4.0 cr)
- GEOL 4450 - Structural Geology (5.0 cr)
- GEOL 4500 - Field Geology (6.0 cr)
- GEOL 1110 - Geology and Earth Systems [LE CAT4, NAT SCI, SUSTAIN] (4.0 cr)  
or GEOL 1130 - Introduction to Environmental Science [LE CAT4, LEIP CAT04, NAT SCI, SUSTAIN] (4.0 cr)  
or GEOL 1610 - Oceanography [LE CAT5, NAT SCI, SUSTAIN] (3.0 cr)  
or GEOG 1414 - Physical Geography [LE CAT4, NAT SCI, SUSTAIN] (4.0 cr)

### Advanced Electives (4 - 9 cr)

Geological Sciences BS students pursuing the exploration and mining track are required to take 4 credits, all other students are required to take 9 credits. GEOL 4110 and 4180 cannot be used.

Take 4 - 9 credit(s) from the following:

- AST 4110 - Observational Astronomy (3.0 cr)
- ESCI 3202 - Energy Resources (3.0 cr)
- GEOL 3xxx
- GEOL 4xxx
- GEOL 5xxx
- GIS 3563 - Geographic Information Science I: Theory and Analysis (4.0 cr)
- GIS 3564 - Geographic Information Science II: Applied GIS (4.0 cr)
- LIM 5004 - Field Limnology (2.0 cr)
- LIM 5101 - Physical Limnology (3.0 cr)
- LIM 5102 - Chemical Limnology (3.0 cr)
- LIM 5103 - Geological Limnology (3.0 cr)
- LIM 5104 - Geochemical, Physical, and Biological processes in Aquatic Sediments (2.0 cr)
- LIM 5105 - Research Frontiers and New Directions in Limnology and Environmental Science (1.0 cr)

### Courses Required From Other Programs (33 cr)

#### Math

- MATH 1290 - Calculus for the Natural Sciences [LE CAT2, LOGIC & QR] (5.0 cr)  
or MATH 1296 - Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)  
or MATH 1596 - Honors: Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)
- MATH 1297 - Calculus II [LOGIC & QR] (5.0 cr)  
or MATH 1597 - Honors: Calculus II [LOGIC & QR] (5.0 cr)

#### Physics

##### Introduction to Physics I and II

- PHYS 1001 - Introduction to Physics I [LE CAT4, NAT SCI] (5.0 cr)
- PHYS 1002 - Introduction to Physics II (5.0 cr)

##### or General Physics I and II

- PHYS 2013 - General Physics I [LE CAT5, NAT SCI] (4.0 cr)  
or PHYS 2017 - Honors: General Physics I [NAT SCI] (4.0 cr)
- PHYS 2014 - General Physics Lab I [NAT SCI] (1.0 cr)
- PHYS 2015 - General Physics II (4.0 cr)  
or PHYS 2018 - Honors General Physics II (4.0 cr)
- PHYS 2016 - General Physics Lab II (1.0 cr)

#### Chemistry

- CHEM 1153 - General Chemistry I [LE CAT5, NAT SCI] (4.0 cr)
- CHEM 1154 - General Chemistry Lab I [LE CAT4, NAT SCI] (1.0 cr)
- CHEM 1155 - General Chemistry II (4.0 cr)
- CHEM 1156 - General Chemistry Lab II (1.0 cr)

#### Writing

- WRIT 3150 - Advanced Writing: Science (3.0 cr)



## Program Sub-plans

A sub-plan is not required for this program.

### Exploration and Mining Geology

The exploration and mining geology track is designed for students interested in a career in the exploration and/or mining industries. The track includes a solid core of geoscience courses with a focus on courses related to exploration and mining geology. The track includes a course in field mapping.

Students completing the exploration and mining geology track are required to take the 42-43 credits of geology core courses required of all students. They are only required to take 4 credits of advanced electives along with 33 credits of courses required from other programs (listed above). They must also complete the requirements below.

#### **Core Courses (11 cr)**

[GEOL 3000](#) - Geologic Maps (3.0 cr)

[GEOL 4355](#) - Economic Geology (4.0 cr)

[GEOL 4360](#) - Geologic, Geophysical, and Geochemical Methods of Exploration (4.0 cr)

#### **Courses from other programs (6 cr)**

[CE 4421](#) - Applied Geostatistics (3.0 cr)

[CHE 4141](#) - Material and Minerals Processing (3.0 cr)

### Duluth Campus

## Geological Sciences Minor

*D Earth & Environmental Sci*

### Swenson College of Science and Engineering

- Program Type: Undergraduate minor related to major
- Requirements for this program are current for Fall 2016
- Required credits in this minor: 27 to 29

The geological sciences minor enhances the student's understanding of and familiarity with earth materials and processes, and provides valuable background for many environmental careers and applications.

### Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

### Minor Requirements

#### Minor Courses (23-24 cr)

- [GEOL 2110](#) - Earth History (4.0 cr)
- [GEOL 2120](#) - The Earth's Dynamic Interior (3.0 cr)
- [GEOL 2311](#) - Mineralogy (4.0 cr)
- [GEOL 3210](#) - Geomorphology (4.0 cr)
- [GEOL 1110](#) - Geology and Earth Systems [LE CAT4, NAT SCI, SUSTAIN] (4.0 cr)  
or [GEOL 1130](#) - Introduction to Environmental Science [LE CAT4, LEIP CAT04, NAT SCI, SUSTAIN] (4.0 cr)  
or [GEOL 1610](#) - Oceanography [LE CAT5, NAT SCI, SUSTAIN] (3.0 cr)  
or [GEOG 1414](#) - Physical Geography [LE CAT4, NAT SCI, SUSTAIN] (4.0 cr)
- [CHEM 1113](#) - Introduction to General, Organic, and Biological Chemistry I [LE CAT4, NAT SCI] (5.0 cr)  
or [CHEM 1153](#) - General Chemistry I [LE CAT5, NAT SCI] (4.0 cr)  
• [CHEM 1154](#) - General Chemistry Lab I [LE CAT4, NAT SCI] (1.0 cr)

#### Electives (4-5 cr)

Take 1 or more course(s) totaling 4 or more credit(s) from the following:

- [ESCI 3202](#) - Energy Resources (3.0 cr)
- [GEOL 2312](#) - Petrology (5.0 cr)
- [GEOL 3420](#) - Sedimentology and Stratigraphy (4.0 cr)
- [GEOL 4450](#) - Structural Geology (5.0 cr)
- [GEOL 5240](#) - Physical Hydrogeology (4.0 cr)
- [GEOL 5250](#) - Environmental Hydrogeology (4.0 cr)



### **Duluth Campus**

## **Industrial Engineering B.S.I.E.**

*UMD Mechanical/Industrial Engineering*

### **Swenson College of Science and Engineering**

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 129
- Required credits within the major: 117
- Degree: Bachelor of Science in Industrial Engineering

The mission of the bachelor of science in Industrial Engineering program is to deliver a hands-on, laboratory-intensive undergraduate education that provides students with the tools and skills to excel in the profession as they pursue lifelong learning and make positive contributions to society. The program emphasizes integrated systems and offers unique opportunities for undergraduate research.

The educational objectives of the industrial engineering program are to produce graduates who:

1. Solve industrial engineering problems by applying contemporary engineering tools to propose and implement effective solutions.
2. Design, develop, implement, and improve integrated systems that include people, materials, information, equipment, and energy.
3. Contribute as informed, ethical, and responsible members of the engineering profession and society as a whole.
4. Continue lifelong professional development throughout their careers.
5. Collaborate and communicate effectively with others as members or leaders of engineering or multidisciplinary teams in international settings.

Industrial engineering integrates topics from manufacturing, management, service, and traditional design. Industrial engineers are proficient in the design, improvement, and management of complex systems of people, materials, equipment, and energy. They study and adapt product designs and the associated plant facilities to optimize production, while considering economic, technical, and human factors.

The curriculum rounds out the learning experience by providing skills in the mathematical and physical sciences, economics, composition, and humanities and social sciences.

The industrial engineering program is accredited by the Engineering Accreditation Commission of ABET, <http://www.abet.org>.

The industrial engineering program emphasizes the overall perspective of people and productivity in any type of system, including manufacturing, service, health care, transportation, communication, and agriculture.

Honors Requirements: To graduate with department honors, a student must graduate with a 3.40 GPA, be an active member of Tau Beta Pi or a professional engineering society (ASME, ASSE, IIE, MSPE, SME or SWE), and be nominated by a department faculty member.

## **Program Delivery**

This program is available:

- via classroom (the majority of instruction is face-to-face)

## **Admission Requirements**

Freshman and transfer students are usually admitted to pre-major status before admission to this major

Freshman, sophomores, and transfer students may declare an IE major and be admitted to lower division status. Admission to upper division B.S.I.E. program is competitive and based on performance in lower division courses, and space availability. To be considered, students must complete the MIE Application to upper division. The following requirements must be met:

1. Completion of the following courses or their transfer equivalents:
  - WRIT 1120
  - CS 1121 or 1411 or 1511 or 2121
  - ENGR 1222
  - CE 2017

- ME 2105
- MATH 3280

2. A minimum cumulative University of Minnesota, Duluth GPA of 2.50

Applicants not meeting these requirements may be admitted to the upper division B.S.I.E. program on a space-available basis with priority determined by cumulative University of Minnesota, Duluth GPA.

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

## General Requirements

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

## Program Requirements

1. This program does not require a minor or second major.
2. Students must submit application to the upper division B.S.I.E. program and, if accepted, must remain in good academic standing. BSIE upper division students placed on academic probation will also be removed from upper division BSIE status and will not be readmitted to BSIE upper division until they achieve good academic standing with the University.
3. Students must complete a minimum of 32 credits of math and science courses. The Industrial Engineering curriculum uses the "Math and Science Required Courses," listed below, to meet this requirement. Courses transferred from other institutions, in lieu of one or more of the above courses, may transfer with fewer credits than the UMD equivalent(s). In this case, to reach the 32 credit minimum, additional coursework may be transferred as equivalent to another UMD math and science course or the student must complete an additional math or science course at UMD.

### Math and Science Required Courses (32 cr)

Students entering the program as transfer students must complete each of these courses at UMD if the direct equivalent for each course did not transfer in from another institution.

#### Chemistry

- [CHEM 1153](#) - General Chemistry I [LE CAT5, NAT SCI] (4.0 cr)
- [CHEM 1154](#) - General Chemistry Lab I [LE CAT4, NAT SCI] (1.0 cr)

#### Mathematics and Statistic

- [MATH 1296](#) - Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)  
or [MATH 1596](#) - Honors: Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)
- [MATH 1297](#) - Calculus II [LOGIC & QR] (5.0 cr)  
or [MATH 1597](#) - Honors: Calculus II [LOGIC & QR] (5.0 cr)
- [MATH 3280](#) - Differential Equations with Linear Algebra (4.0 cr)
- [STAT 3411](#) - Engineering Statistics (3.0 cr)

#### Physics I

- [PHYS 2013](#) - General Physics I [LE CAT5, NAT SCI] (4.0 cr)  
or [PHYS 2017](#) - Honors: General Physics I [NAT SCI] (4.0 cr)

with [PHYS 2014](#) - General Physics Lab I [NAT SCI] (1.0 cr)

#### Physics II

[PHYS 2015](#) - General Physics II (4.0 cr)

or [PHYS 2018](#) - Honors General Physics II (4.0 cr)

with [PHYS 2016](#) - General Physics Lab II (1.0 cr)

#### B.S.I.E. Core and Engineering Courses (58 cr)

Required courses include fundamental material in civil engineering, electrical engineering, engineering management, engineering science, industrial engineering, and mechanical engineering. Concepts are delivered in lecture and reinforced in lab experiences.

[CE 2017](#) - Engineering Mechanics: Statics and Mechanics of Materials (5.0 cr)

[EE 2006](#) - Electrical Circuit Analysis (4.0 cr)

[EMGT 4110](#) - Engineering Professionalism and Practice (2.0 cr)

[ENGR 1210](#) - Introduction to Engineering (2.0 cr)

[ENGR 1222](#) - Introduction to Solid Modeling (2.0 cr)

[IE 3115](#) - Operations Research (4.0 cr)

[IE 3122](#) - Materials Engineering Laboratory (2.0 cr)

[IE 3125](#) - Engineering Economic Analysis [SOC SCI] (3.0 cr)

[IE 3130](#) - Materials Processing Engineering (3.0 cr)

[IE 3140](#) - Human Factors and Ergonomic Design (3.0 cr)

[IE 3222](#) - Occupational Systems Laboratory (2.0 cr)

[IE 4010](#) - Six Sigma Quality Control (3.0 cr)

[IE 4020](#) - Lean Production Management (3.0 cr)

[IE 4115](#) - Facility Planning and Simulation (4.0 cr)

[IE 4222](#) - Systems Integration Laboratory (2.0 cr)

[IE 4230](#) - Systems Integration (3.0 cr)

[IE 4255](#) - Multidisciplinary Senior Design (4.0 cr)

[IE 4993](#) - Industrial Engineering Seminar (1.0 cr)

[ME 2105](#) - Introduction to Material Science for Engineers (3.0 cr)

[ME 2226](#) - Dynamics (3.0 cr)

#### Industrial Engineering Electives (3 cr)

These courses help an industrial engineer develop systems skills in technical areas. (Cannot count credits from other requirement categories.)

Take 3 or more credit(s) from the following:

•[IE 4495](#) - Special Topics: (Various Titles to be Assigned) (1.0 - 4.0 cr)

•[IE 5305](#) - Supply Chain Management (3.0 cr)

•[IE 5315](#) - Organizational Control Methods (3.0 cr)

•[IE 5325](#) - Advanced Engineering Economics (3.0 cr)

•[IE 5335](#) - Engineered Products and Services (3.0 cr)

#### Additional Electives (9 cr)

(Cannot count credits from other requirement categories.)

Take 3 or more course(s) totaling 9 or more credit(s) from the following:

•[CHE 2111](#) - Material and Energy Balances (3.0 cr)

•[CS 1521](#) - Computer Science II (5.0 cr)

•[EE 1315](#) - Digital Logic (4.0 cr)

•[EE 2111](#) - Linear Systems and Signal Analysis (4.0 cr)

•[EE 2212](#) - Electronics I (4.0 cr)

•[EE 2325](#) - Microprocessor Systems (4.0 cr)

•[EE 3151](#) - Control Systems (4.0 cr)

•[EE 5995](#) - Special Topics: (Various Titles to be Assigned) (1.0 - 3.0 cr)

•[IE 4196](#) - Cooperative Education (1.0 cr)

•[IE 4296](#) - Cooperative Education II (2.0 cr)

•[IE 4491](#) - Independent Study (1.0 - 4.0 cr)

•[IE 4495](#) - Special Topics: (Various Titles to be Assigned) (1.0 - 4.0 cr)

•[IE 4993](#) - Industrial Engineering Seminar (1.0 cr)

•[IE 5305](#) - Supply Chain Management (3.0 cr)

•[IE 5315](#) - Organizational Control Methods (3.0 cr)

•[IE 5325](#) - Advanced Engineering Economics (3.0 cr)

•[IE 5335](#) - Engineered Products and Services (3.0 cr)

•[IE 5991](#) - Independent Study in Industrial Engineering (1.0 - 4.0 cr)

•[MATH 3298](#) - Calculus III (4.0 cr)

•[MATH 3355](#) - Discrete Mathematics (4.0 cr)

•[ME 2211](#) - Thermodynamics [SUSTAIN] (3.0 cr)

•[ME 3010](#) - Fundamentals of Machining and Manufacturing (3.0 cr)



- ME 3140 - System Dynamics and Control (3.0 cr)
- ME 4135 - Robotics and Controls (3.0 cr)
- ME 4145 - CAD/CAM (4.0 cr)
- ME 4175 - Machine Design (3.0 cr)
- ME 4365 - Global Sustainability Experience in Design/Manufacturing in Africa (3.0 cr)
- ME 4495 - Special Topics: (Various Titles to be Assigned) (1.0 - 4.0 cr)
- ME 5315 - Nondestructive Evaluation of Engineering Materials (3.0 cr)
- ME 5325 - Sustainable Energy System (3.0 cr)
- MGTS 4472 - Entrepreneurship (3.0 cr)
- STAT 5411 - Analysis of Variance (3.0 cr)
- STAT 5511 - Regression Analysis (3.0 cr)
- ME 3111 - Fluid Mechanics (3.0 cr)  
or CHE 3111 - Fluid Mechanics (3.0 cr)

#### **Courses From Other Programs (15 - 17 cr)**

These courses help engineers develop a foundation of economics and communication skills. Students entering the program as transfer students must complete each of these courses at UMD if the direct equivalent for each course did not transfer in from another institution.

##### **Business**

- ACCT 2001 - Principles of Financial Accounting (3.0 cr)  
or BLAW 2001 - The Legal Environment [LE CAT8, HUMANITIES] (3.0 cr)
- or MGTS 1101 - Introduction to Business [LE CAT8] (3.0 cr)
- or MKTG 3701 - Principles of Marketing (3.0 cr)

##### **Communication**

- COMM 1112 - Public Speaking [LE CAT3, COMM & LAN] (3.0 cr)

##### **Computer Science**

- CS 1121 - Introduction to Programming in Visual BASIC.NET [LE CAT3, LOGIC & QR] (3.0 cr)
- or CS 1411 - Introduction to Programming in Matlab (4.0 cr)
- or CS 1511 - Computer Science I [LE CAT3, LOGIC & QR] (5.0 cr)
- or CS 1581 - Honors: Computer Science I [LE CAT3, LOGIC & QR] (5.0 cr)
- or CS 2121 - Introduction to Programming in Java [LE CAT3, LOGIC & QR] (3.0 cr)

##### **Economics**

- ECON 1022 - Principles of Economics: Macro [LE CAT6, SOC SCI] (3.0 cr)
- or ECON 1023 - Principles of Economics: Micro [LE CAT6, SOC SCI] (3.0 cr)

##### **Writing**

WRIT 3130 is preferred

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

- WRIT 3130 - Advanced Writing: Engineering (3.0 cr)
- WRIT 3150 - Advanced Writing: Science (3.0 cr)
- WRIT 3180 - Honors: Advanced Writing (3.0 cr)

## Duluth Campus

# Materials Science and Engineering Minor

Chemical Engineering

## Swenson College of Science and Engineering

- Program Type: Undergraduate free-standing minor
- Requirements for this program are current for Fall 2016
- Required credits in this minor: 45 to 46

Materials Science and Engineering (MSE) is a field that studies the structure, property, processing, and application of materials. The MSE minor provides students with the fundamentals of materials science and engineering and introduces them to a material focused approach to problem solving. Completion of the MSE minor requires a minimum of 45 credit hours, which include 36 hours of required courses and at least 9 hours of elective courses

## Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

## Minor Requirements

This program presupposes 1 year of high school chemistry and a Math ACT score of 27 or higher.

### Required Courses (36 - 37 cr)

#### Chemistry I

- [CHEM 1153](#) - General Chemistry I [LE CAT5, NAT SCI] (4.0 cr)
- [CHEM 1154](#) - General Chemistry Lab I [LE CAT4, NAT SCI] (1.0 cr)
- or [CHEM 1173](#) - General Chemistry I for Majors [NAT SCI] (4.0 cr)
- [CHEM 1174](#) - General Chemistry I Lab for Majors [NAT SCI] (1.0 cr)

#### Chemistry II

- [CHEM 1155](#) - General Chemistry II (4.0 cr)
- [CHEM 1156](#) - General Chemistry Lab II (1.0 cr)
- or [CHEM 1175](#) - General Chemistry II for Majors (4.0 cr)
- [CHEM 1176](#) - General Chemistry II Lab for Majors (1.0 cr)

#### Calculus I

- [MATH 1290](#) - Calculus for the Natural Sciences [LE CAT2, LOGIC & QR] (5.0 cr)
- or [MATH 1296](#) - Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)
- or [MATH 1596](#) - Honors: Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)

#### Calculus II

- [MATH 1297](#) - Calculus II [LOGIC & QR] (5.0 cr)
- or [MATH 1597](#) - Honors: Calculus II [LOGIC & QR] (5.0 cr)

#### Physics I

- [PHYS 2013](#) - General Physics I [LE CAT5, NAT SCI] (4.0 cr)
- or [PHYS 2017](#) - Honors: General Physics I [NAT SCI] (4.0 cr)
- [PHYS 2014](#) - General Physics Lab I [NAT SCI] (1.0 cr)

#### Physics II

- [PHYS 2015](#) - General Physics II (4.0 cr)
- or [PHYS 2018](#) - Honors General Physics II (4.0 cr)
- [PHYS 2016](#) - General Physics Lab II (1.0 cr)

#### Engineering Materials

- [CHE 3231](#) - Properties of Engineering Materials (3.0 cr)
- or [ME 2105](#) - Introduction to Material Science for Engineers (3.0 cr)

#### Thermodynamics

- [CHE 2121](#) - Chemical Engineering Thermodynamics (3.0 cr)
- or [CHEM 4641](#) - Physical Chemistry I (3.0 cr)
- or [ME 2211](#) - Thermodynamics [SUSTAIN] (3.0 cr)
- or [PHYS 4031](#) - Thermal and Statistical Physics (4.0 cr)

### Required Electives (9 cr)

A maximum of two courses with the same designator.



Take 3 or more course(s) totaling 9 or more credit(s) from the following:

- CE 2017 - Engineering Mechanics: Statics and Mechanics of Materials (5.0 cr)
- CE 3027 - Infrastructure Materials (4.0 cr)
- CE 5027 - Advanced Infrastructure Materials (3.0 cr)
- CHE 4141 - Material and Minerals Processing (3.0 cr)
- CHE 5131 - Polymer Engineering (3.0 cr)
- CHE 5711 - Biomedical Engineering (3.0 cr)
- CHEM 4510 - Polymer Chemistry (3.0 cr)
- EE 4611 - Introduction to Solid-State Semiconductors (3.0 cr)
- IE 3122 - Materials Engineering Laboratory (2.0 cr)
- IE 3130 - Materials Processing Engineering (3.0 cr)
- ME 5315 - Nondestructive Evaluation of Engineering Materials (3.0 cr)
- ME 5345 - Smart Materials and Structures (3.0 cr)
- PHYS 5041 - Optics (3.0 cr)
- PHYS 5531 - Introduction to Solid State Physics (3.0 cr)

## Duluth Campus

# Mathematics B.S.

Mathematics & Statistics

## Swenson College of Science and Engineering

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 120
- Required credits within the major: 57
- Degree: Bachelor of Science

The program in mathematics develops competence in mathematical techniques and sharpens mathematical insight. Mathematics is fundamental to solving problems in physics, chemistry, biology, medicine, business, engineering, and technology. The mathematics major prepares students for careers in business, industry, and government and for further graduate studies.

Note: the B.S. in statistics and actuarial science is listed separately.

Honors Requirements: To graduate with departmental honors, a student must complete the program with an overall and department GPA of 3.50, satisfactorily complete a research project under the guidance of a department faculty member, and convey research results in a written report and in a department colloquium.

## Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

## Admission Requirements

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

## General Requirements

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

## Program Requirements

1. Minor or second major from another area of study.

Double Majors ONLY:

A student pursuing a second major in Statistics and Actuarial Science can count STAT 3612 as a major elective, but no other STAT course required for the Statistics and Actuarial Science major can be counted as a major elective.

**Introduction to Calculus Courses (10 cr)****Calculus I**

Take one of the following three Calculus I courses:

- MATH 1290 - Calculus for the Natural Sciences [LE CAT2, LOGIC & QR] (5.0 cr)
- or MATH 1296 - Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)
- or MATH 1596 - Honors: Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)

Take one of the following two Calculus II courses:

- MATH 1297 - Calculus II [LOGIC & QR] (5.0 cr)
- or MATH 1597 - Honors: Calculus II [LOGIC & QR] (5.0 cr)

**Mathematics Core Courses (23 cr)**

Core courses cannot count as electives.

- MATH 3280 - Differential Equations with Linear Algebra (4.0 cr)
- MATH 3298 - Calculus III (4.0 cr)
- MATH 3355 - Discrete Mathematics (4.0 cr)
- MATH 4201 - Elementary Real Analysis (4.0 cr)
- MATH 4326 - Linear Algebra (3.0 cr)
- STAT 3611 - Introduction to Probability and Statistics (4.0 cr)

**Required Math Undergraduate Colloquium (1 cr)**

Students must register their last semester before graduation.

- MATH 3941 - Undergraduate Colloquium (1.0 cr)

**Required From Other Departments (8 cr)**

- CS 1511 - Computer Science I [LE CAT3, LOGIC & QR] (5.0 cr)
- or CS 1581 - Honors: Computer Science I [LE CAT3, LOGIC & QR] (5.0 cr)
- Advanced Writing - WRIT 31xx (3.0 cr)

**Electives (15 cr)**

Take 5 courses of at least 3 credits each.

Core courses cannot count as electives.

MATH electives must be at least 3100.

Of the 5 major elective courses, at least 2 must be from MATH 4xxx-5xxx, a 3rd must be from MATH 4xxx-5xxx or STAT 5xxx.

The other 2 must be chosen from MATH 3xxx - 4xxx - 5xxx or STAT 3xxx - 4xxx - 5xxx.

MATH 3326, 4370 or STAT 3411 cannot count as major electives.

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

- MATH 3xxx
- MATH 4xxx
- MATH 5xxx
- STAT 3xxx
- STAT 4xxx
- STAT 5xxx

Take 1 or more course(s) totaling 3 or more credit(s) from the following:

- MATH 4xxx
- MATH 5xxx
- STAT 5xxx

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

- MATH 4xxx
- MATH 5xxx

**Program Areas of Emphasis**

Mathematics includes a wide variety of areas in which students can specialize: traditional mathematics (preparation for Graduate School), applied analysis, computational mathematics, discrete mathematics, and mathematics education. Although no area is required for the MATH major, students are encouraged to work with their advisers to develop a coherent major plan. See the Department of Mathematics and Statistics Web page: <http://www.d.umn.edu/math> for descriptions of elective course groups.



### Duluth Campus

## Mathematics Minor

*Mathematics & Statistics*

### Swenson College of Science and Engineering

- Program Type: Undergraduate minor related to major
- Requirements for this program are current for Fall 2016
- Required credits in this minor: 22 to 23

The minor in mathematics is based on the completion of the traditional core of calculus, differential equations, and elementary linear algebra commonly required of undergraduate physical science, engineering, and mathematics degrees. Additional, more advanced, elective classes are required, as well. The minor in mathematics certifies a student's quantitative, problem-solving, and critical thinking skills.

### Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

### Minor Requirements

1. Only one of MATH 3280 and MATH 3326 may count and only one of STAT 3411 and STAT 3611 may count.

#### Core Courses (13 - 14 cr)

##### Calculus I

[MATH 1290](#) - Calculus for the Natural Sciences [LE CAT2, LOGIC & QR] (5.0 cr)

or [MATH 1296](#) - Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)

or [MATH 1596](#) - Honors: Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)

##### Calculus II

[MATH 1297](#) - Calculus II [LOGIC & QR] (5.0 cr)

or [MATH 1597](#) - Honors: Calculus II [LOGIC & QR] (5.0 cr)

##### Core Course

[MATH 3280](#) - Differential Equations with Linear Algebra (4.0 cr)

or [MATH 3326](#) - Vectors and Matrices (3.0 cr)

#### Electives (9 - 12 cr)

Each course must be a minimum of 3 credits.

Take 3 or more course(s) totaling 9 or more credit(s) from the following:

- MATH 3xxx
- MATH 4xxx
- MATH 5xxx
- STAT 3xxx
- STAT 4xxx
- STAT 5xxx

### **Duluth Campus**

## **Mechanical Engineering B.S.M.E.**

*UMD Mechanical/Industrial Engineering*

### **Swenson College of Science and Engineering**

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 129
- Required credits within the major: 114
- Degree: Bachelor of Science in Mechanical Engineering

The mission of the bachelor of science in mechanical engineering is to deliver a laboratory-intensive, undergraduate mechanical engineering education that provides students with the tools and skills to excel in the engineering profession, as they pursue lifelong learning and make positive contributions to society. The student learning experience offers unique opportunities for study abroad, undergraduate research, and electives outside of mechanical engineering to develop an enhanced global perspective.

The educational objectives of the mechanical engineering program are to produce graduates who are able to:

1. Solve mechanical engineering problems by applying contemporary engineering tools to propose and implement effective solutions.
2. Design, develop, implement, and improve thermal and mechanical systems.
3. Contribute as informed, ethical, and responsible members of the engineering profession and society as a whole.
4. Continue lifelong professional development throughout their career.
5. Collaborate and communicate effectively with others as a member or leader of an engineering or multidisciplinary team in an international setting.

The B.S.M.E. program integrates topics from chemistry, physics, advanced mathematics and statistics, and core engineering science to prepare graduates to work professionally in both thermal and mechanical systems, from design, development, manufacture, and use of products involving mechanical and thermal elements.

The program emphasizes the production engineering approach to mechanical and thermal systems design and development. Upper division courses provide students with a strong understanding of mechanical and thermal systems, and the skills to design, develop, and implement these systems.

The mechanical engineering program is accredited by the Engineering Accreditation Commission of ABET. <http://www.abet.org>

Mechanical engineering graduates are qualified for employment in a wide variety of industries including design, manufacturing, materials, aerospace, transportation, natural resources, and energy. Graduates may pursue assignments in design, development, manufacturing, operations, project engineering, or sales, and frequently move into engineering management. They are also well-qualified to continue with graduate education.

Students in the B.S.M.E. program have the opportunity to put their design and entrepreneurial skills to use in ASME design competitions, projects sponsored by regional companies, and research projects in the Undergraduate Research Opportunities Program.

Honors requirements: To graduate with department honors, a student must have a 3.40 GPA, be an active member of Tau Beta Pi or a professional engineering society (ASME, ASSE, IIE, MSPE, SME or SWE), and be nominated by a department faculty member.

### **Program Delivery**

This program is available:

- via classroom (the majority of instruction is face-to-face)

### **Admission Requirements**

Freshman and transfer students are usually admitted to pre-major status before admission to this major

Freshman, sophomores, and transfer students may declare a ME major and be admitted to lower division status. Admission to the upper division B.S.M.E. program is competitive and based on performance in lower division courses and space availability. To be considered students must complete the MIE Application to upper division. The following requirements must be met:

1. Completion of the following courses or their transfer equivalents:

- WRIT 1120
- CS 1121 or 1411 or 1511 or 2121
- ENGR 1222
- CE 2017
- ME 2105
- MATH 3280

2. A minimum cumulative UMD GPA of 2.50. Admission is competitive and applicants are admitted on a space-available basis, with priority determined by cumulative UMD GPA.

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

## General Requirements

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

## Program Requirements

1. This program does not require a minor or second major.
2. Student must submit application to upper division BSME program and if accepted must remain in good academic standing. BSME upper division students placed on academic probation will also be removed from upper division BSME status and will not be readmitted to BSME upper division until they achieve good academic standing with the University.
3. Students must complete a minimum of 32 credits of math and science courses. The mechanical engineering curriculum uses the math and science required courses, listed below, to meet this requirement. Courses transferred from other institutions in lieu of one or more of the above courses may transfer with fewer credits than the UMD equivalent(s). In this case, to reach the 32 credit minimum, additional coursework may be transferred as equivalent to another UMD math and science course or the student must complete an additional math or science course at UMD.

### Math and Science Required Courses (36 cr)

Students entering the program as transfer students must complete each of these courses at UMD if the direct equivalent for each course did not transfer in from another institution.

#### Chemistry

- CHEM 1153 - General Chemistry I [LE CAT5, NAT SCI] (4.0 cr)
- CHEM 1154 - General Chemistry Lab I [LE CAT4, NAT SCI] (1.0 cr)

#### Mathematics and Statistics

- MATH 1296 - Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)  
or MATH 1596 - Honors: Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)
- MATH 1297 - Calculus II [LOGIC & QR] (5.0 cr)  
or MATH 1597 - Honors: Calculus II [LOGIC & QR] (5.0 cr)
- MATH 3280 - Differential Equations with Linear Algebra (4.0 cr)
- MATH 3298 - Calculus III (4.0 cr)
- STAT 3411 - Engineering Statistics (3.0 cr)

**Physics****Physics I**

- PHYS 2013 - General Physics I [LE CAT5, NAT SCI] (4.0 cr)  
or PHYS 2017 - Honors: General Physics I [NAT SCI] (4.0 cr)
- PHYS 2014 - General Physics Lab I [NAT SCI] (1.0 cr)

**Physics II**

- PHYS 2015 - General Physics II (4.0 cr)  
or PHYS 2018 - Honors General Physics II (4.0 cr)
- PHYS 2016 - General Physics Lab II (1.0 cr)

**B.S.M.E Core Courses (60 cr)**

Courses include fundamental material in engineering management, engineering science, industrial engineering, and mechanical engineering. Concepts are delivered in lecture and reinforced in lab experiences.

- CE 2017 - Engineering Mechanics: Statics and Mechanics of Materials (5.0 cr)
- EE 2006 - Electrical Circuit Analysis (4.0 cr)
- EMGT 4110 - Engineering Professionalism and Practice (2.0 cr)
- ENGR 1210 - Introduction to Engineering (2.0 cr)
- ENGR 1222 - Introduction to Solid Modeling (2.0 cr)
- IE 3122 - Materials Engineering Laboratory (2.0 cr)
- IE 3125 - Engineering Economic Analysis [SOC SCI] (3.0 cr)
- IE 3130 - Materials Processing Engineering (3.0 cr)
- IE 4993 - Industrial Engineering Seminar (1.0 cr)
- ME 2105 - Introduction to Material Science for Engineers (3.0 cr)
- ME 2211 - Thermodynamics [SUSTAIN] (3.0 cr)
- ME 2226 - Dynamics (3.0 cr)
- ME 3140 - System Dynamics and Control (3.0 cr)
- ME 3222 - Controls and Kinematics Laboratory (2.0 cr)
- ME 3230 - Kinematics and Mechatronics (3.0 cr)
- ME 4112 - Heat and Mass Transfer (3.0 cr)
- ME 4122 - Heat Transfer, Thermodynamics and Fluid Mechanics Laboratory (2.0 cr)
- ME 4145 - CAD/CAM (4.0 cr)
- ME 4175 - Machine Design (3.0 cr)
- ME 4255 - Multidisciplinary Senior Design (4.0 cr)
- ME 3111 - Fluid Mechanics (3.0 cr)  
or CHE 3111 - Fluid Mechanics (3.0 cr)

**Mechanical Engineering Advanced Electives (3 cr)**

These courses help a mechanical engineer develop skills in a particular technical area.

Take 3 or more credit(s) from the following:

- ME 4135 - Robotics and Controls (3.0 cr)
- ME 4365 - Global Sustainability Experience in Design/Manufacturing in Africa (3.0 cr)
- ME 4495 - Special Topics: (Various Titles to be Assigned) (1.0 - 4.0 cr)
- ME 5305 - Computational Fluid Dynamics (3.0 cr)
- ME 5315 - Nondestructive Evaluation of Engineering Materials (3.0 cr)
- ME 5325 - Sustainable Energy System (3.0 cr)
- ME 5335 - Introduction to Finite Element Analysis (3.0 cr)
- ME 5345 - Smart Materials and Structures (3.0 cr)
- ME 5355 - Gas Turbines (3.0 cr)

**Mechanical Engineering Technical Electives (6 cr)**

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

- CHE 4301 - Chemical Reaction Engineering (3.0 cr)
- CHE 5022 - Transport Processes in Wells and Pipelines (3.0 cr)
- EE 2111 - Linear Systems and Signal Analysis (4.0 cr)
- EE 3445 - Electromagnetic Fields (3.0 cr)
- EE 4501 - Power Systems (4.0 cr)
- EE 4611 - Introduction to Solid-State Semiconductors (3.0 cr)
- IE 3115 - Operations Research (4.0 cr)
- IE 4010 - Six Sigma Quality Control (3.0 cr)
- IE 4020 - Lean Production Management (3.0 cr)
- IE 4993 - Industrial Engineering Seminar (1.0 cr)
- IE 5315 - Organizational Control Methods (3.0 cr)
- IE 5325 - Advanced Engineering Economics (3.0 cr)
- ME 3010 - Fundamentals of Machining and Manufacturing (3.0 cr)
- ME 4050 - Fundamentals of Nuclear Engineering (3.0 cr)



- ME 4060 - Machine Vision and Image Based Robot Control (3.0 cr)
- ME 4135 - Robotics and Controls (3.0 cr)
- ME 4196 - Cooperative Education (1.0 cr)
- ME 4296 - Cooperative Education II (2.0 cr)
- ME 4365 - Global Sustainability Experience in Design/Manufacturing in Africa (3.0 cr)
- ME 4375 - Pipeline Engineering (3.0 cr)
- ME 4491 - Independent Study in Mechanical Engineering (1.0 - 4.0 cr)
- ME 4495 - Special Topics: (Various Titles to be Assigned) (1.0 - 4.0 cr)
- ME 5305 - Computational Fluid Dynamics (3.0 cr)
- ME 5315 - Nondestructive Evaluation of Engineering Materials (3.0 cr)
- ME 5325 - Sustainable Energy System (3.0 cr)
- ME 5335 - Introduction to Finite Element Analysis (3.0 cr)
- ME 5345 - Smart Materials and Structures (3.0 cr)
- ME 5355 - Gas Turbines (3.0 cr)
- ME 5991 - Independent Study in Mechanical Engineering (1.0 - 4.0 cr)
- MGTS 4472 - Entrepreneurship (3.0 cr)
- PHYS 2021 - Relativity and Quantum Physics (4.0 cr)
- PHYS 4021 - Quantum Physics II (4.0 cr)
- PHYS 4031 - Thermal and Statistical Physics (4.0 cr)

#### **Courses From Other Programs (9 cr)**

These courses help engineers develop a foundation of communication, computer, and economics skills.

##### **Computer Science**

- CS 1121 - Introduction to Programming in Visual BASIC.NET [LE CAT3, LOGIC & QR] (3.0 cr)
- or CS 1411 - Introduction to Programming in Matlab (4.0 cr)
- or CS 2121 - Introduction to Programming in Java [LE CAT3, LOGIC & QR] (3.0 cr)
- or CS 1511 - Computer Science I [LE CAT3, LOGIC & QR] (5.0 cr)
- or CS 1581 - Honors: Computer Science I [LE CAT3, LOGIC & QR] (5.0 cr)

##### **Economics**

- ECON 1022 - Principles of Economics: Macro [LE CAT6, SOC SCI] (3.0 cr)
- or ECON 1023 - Principles of Economics: Micro [LE CAT6, SOC SCI] (3.0 cr)

##### **Writing**

- WRIT 3130 is preferred
- WRIT 3130 - Advanced Writing: Engineering (3.0 cr)
- or WRIT 3150 - Advanced Writing: Science (3.0 cr)
- or WRIT 3180 - Honors: Advanced Writing (3.0 cr)

### Duluth Campus

## Natural History Minor

*D Earth & Environmental Sci, Biology*

### Swenson College of Science and Engineering

- Program Type: Undergraduate free-standing minor
- Requirements for this program are current for Fall 2016
- Required credits in this minor: 34

The natural history minor enhances student understanding of the ecology and geology of the natural world. It places particular emphasis on courses with field labs. The minor program covers a wide range of topics in earth's history, geomorphology, ecology, ornithology, entomology, ichthyology, mammalogy, animal behavior, and field interpretation for education, as well as other topics.

### Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

### Minor Requirements

#### Required Courses (22 cr)

- BIOL 1011 - General Biology I [LE CAT4, NAT SCI] (5.0 cr)
- BIOL 1012 - General Biology II [SUSTAIN] (5.0 cr)
- BIOL 2801 - General Ecology (3.0 cr)
- GEOL 1110 - Geology and Earth Systems [LE CAT4, NAT SCI, SUSTAIN] (4.0 cr)
- GEOL 2110 - Earth History (4.0 cr)
- BIOL 4992 - Senior Seminar: Classic Readings in Natural History (1.0 cr)

#### Required Electives (12 cr)

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

##### Biology

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

- BIOL 3601 - Plant Diversity (3.0 cr)
- BIOL 3603 - Plant Taxonomy (3.0 cr)
- BIOL 3701 - Animal Diversity (4.0 cr)
- BIOL 3760 - Marine Biology (3.0 cr)
- BIOL 3761 - Field Studies in Marine Biology (4.0 cr)
- BIOL 3830 - Aquatic Food Webs (3.0 cr)
- BIOL 3835 - Freshwater Ecology (3.0 cr)
- BIOL 4731 - Entomology (3.0 cr)
- BIOL 4761 - Ichthyology (3.0 cr)
- BIOL 4763 - Ornithology (3.0 cr)
- BIOL 4764 - Mammalogy (3.0 cr)
- BIOL 4818 - Biotic Response to Climate Change (2.0 cr)
- BIOL 4850 - Evolution in Agriculture: Crops, Animals, Weeds, and Insects (3.0 cr)
- BIOL 4891 - Animal Behavior (2.0 cr)
- BIOL 5515 - Microbial Diversity and Phylogeny (3.0 cr)
- BIOL 5777 - Plankton Biology (2.0 cr)
- BIOL 5801 - Microbial Ecology (2.0 cr)
- BIOL 5802 - Microbial Ecology Laboratory (2.0 cr)
- BIOL 5805 - Fisheries Ecology (3.0 cr)
- BIOL 5833 - Stream Ecology (3.0 cr)
- BIOL 4839 - Coral Reef Field Studies (3.0 cr)
- BIOL 5861 - Lake Ecology (3.0 cr)
- BIOL 5865 - Conservation Biology (2.0 cr)
- BIOL 5870 - Wetland Ecology (3.0 cr)

##### Geology

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

- GEOL 3100 - Earth's Climate and Environment: Past and Future (3.0 cr)
- GEOL 3210 - Geomorphology (4.0 cr)
- GEOL 4500 - Field Geology (6.0 cr)



- [GEOL 5220](#) - Advances in Paleoclimatology (3.0 cr)
- [GEOL 5320](#) - Precambrian Geology (3.0 cr)
- [GEOL 4839](#) - Coral Reef Geology (3.0 cr)

•**Additional Elective Options**

Take 0 or more course(s) from the following:

- [ENED 3341](#) - Field Interpretive Techniques I (3.0 cr)
- [ENED 3342](#) - Field Interpretive Techniques II (3.0 cr)
- [FST 3236](#) - Icelandic Geology & the New Society (3.0 cr)

## Duluth Campus

### Physics B.A.

UMD-Physics & Astronomy

#### Swenson College of Science and Engineering

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 120
- Required credits within the major: 55
- Degree: Bachelor of Arts

The bachelor of arts degree in physics is a liberal arts degree that allows considerable freedom in the planning of upper level courses and can easily be combined with other majors and interests. The physics courses emphasize conceptual foundations, problem-solving skills, and experimental techniques.

Honors requirements: To graduate with honors, students must participate in the department honors program, complete and present a research project, and maintain a GPA above 3.00 overall and in the major. They are also expected to attend department colloquia. Interested students should contact the physics honors program coordinator.

### Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

### Admission Requirements

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

#### Required prerequisites

##### Introductory Requirement (1 cr)

Transfer students with 24 or more credits and current students who change from a BS degree or change colleges may request to be waived from this requirement. New first-year students with 24 or more PSEO credits may request to be waived from this requirement. [UST 1000](#) - UMD Seminar (1.0 - 2.0 cr)

### General Requirements

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

### Program Requirements

1. A second field of study (either a minor or another major).
2. Students interested in teaching 9-12 physics may enroll concurrently in secondary licensure requirements in the Department of

Education and apply for admission to the Secondary Teacher Education Program.

3. Taking the "Honors" General Physics I course (PHYS 2017) is recommended but not required for physics majors.

#### Required Courses (22 cr)

##### Physics I

- PHYS 2013 - General Physics I [LE CAT5, NAT SCI] (4.0 cr)
- or PHYS 2017 - Honors: General Physics I [NAT SCI] (4.0 cr)
- PHYS 2014 - General Physics Lab I [NAT SCI] (1.0 cr)

##### Physics II

- PHYS 2015 - General Physics II (4.0 cr)
- or PHYS 2018 - Honors General Physics II (4.0 cr)
- PHYS 2016 - General Physics Lab II (1.0 cr)

##### Core Courses

- PHYS 1021 - Exploring Current Topics in Physics (1.0 cr)
- PHYS 2021 - Relativity and Quantum Physics (4.0 cr)
- PHYS 2022 - Classical Physics (4.0 cr)
- PHYS 2033 - Classical and Quantum Physics Lab (2.0 cr)
- PHYS 5090 - Physics Seminar (1.0 cr)

#### Electives (11 cr)

Take 11 or more credit(s) from the following:

- AST 4110 - Observational Astronomy (3.0 cr)
- LIM 5101 - Physical Limnology (3.0 cr)
- PHYS 3033 - Analytical Methods in Physics (3.0 cr)
- PHYS 3061 - Instrumentation (3.0 cr)
- PHYS 4001 - Classical Mechanics (4.0 cr)
- PHYS 4011 - Electromagnetic Theory (4.0 cr)
- PHYS 4021 - Quantum Physics II (4.0 cr)
- PHYS 4031 - Thermal and Statistical Physics (4.0 cr)
- PHYS 5041 - Optics (3.0 cr)
- PHYS 5052 - Computational Methods in Physics (3.0 cr)
- PHYS 5053 - Data Analysis Methods in Physics (3.0 cr)
- PHYS 5061 - Experimental Methods (3.0 cr)
- PHYS 5531 - Introduction to Solid State Physics (3.0 cr)
- PHYS 5541 - Fluid Dynamics (3.0 cr)
- PHYS 3561 - Astrophysics (3.0 cr)
- or PHYS 5561 - Astrophysics (3.0 cr)

#### Courses From Other Programs (21 cr)

##### Math

- MATH 1296 - Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)
- or MATH 1596 - Honors: Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)
- MATH 1297 - Calculus II [LOGIC & QR] (5.0 cr)
- or MATH 1597 - Honors: Calculus II [LOGIC & QR] (5.0 cr)
- MATH 3280 - Differential Equations with Linear Algebra (4.0 cr)
- MATH 3298 - Calculus III (4.0 cr)

##### Advanced Writing

- WRIT 3130 - Advanced Writing: Engineering (3.0 cr)
- or WRIT 3150 - Advanced Writing: Science (3.0 cr)

### **Duluth Campus**

## **Physics B.S.**

*UMD-Physics & Astronomy*

### **Swenson College of Science and Engineering**

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 120
- Required credits within the major: 65
- Degree: Bachelor of Science

The bachelor of science degree in physics is primarily for students planning to work toward an advanced degree in physics or a related area. The physics courses emphasize conceptual foundations, problem-solving skills, and experimental techniques.

Students are encouraged to participate in research. The department also offers courses required for other science and engineering programs.

Honors requirements: To graduate with honors, students must participate in the department honors program, complete and present a research project, and maintain a GPA above 3.00 overall and in the major. They are also expected to attend department colloquia. Interested students should contact the physics honors program coordinator.

### **Program Delivery**

This program is available:

- via classroom (the majority of instruction is face-to-face)

### **Admission Requirements**

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

### **General Requirements**

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

### **Program Requirements**

1. A minor or a second major in a different program.
2. The first math course is determined by ACT math score. The sample plan presupposes placement into MATH 1296.
3. Courses numbered above 3xxx may be offered in alternate years only. Some courses suggested in the sample plans in the junior and senior years may need to be switched to match the course offerings.

4. Students interested in teaching 9-12 physics may enroll concurrently in the Department of Education and apply for admission to the Secondary Teacher Education Program.

5. Taking the Honors General Physics I course (PHYS 2017) is recommended but not required.

#### Required Courses (35 cr)

##### Physics I

- PHYS 2013 - General Physics I [LE CAT5, NAT SCI] (4.0 cr)  
or PHYS 2017 - Honors: General Physics I [NAT SCI] (4.0 cr)
- PHYS 2014 - General Physics Lab I [NAT SCI] (1.0 cr)

##### Physics II

- PHYS 2015 - General Physics II (4.0 cr)  
or PHYS 2018 - Honors General Physics II (4.0 cr)
- PHYS 2016 - General Physics Lab II (1.0 cr)

##### Core Courses

- PHYS 2021 - Relativity and Quantum Physics (4.0 cr)
- PHYS 2022 - Classical Physics (4.0 cr)
- PHYS 2033 - Classical and Quantum Physics Lab (2.0 cr)
- PHYS 3033 - Analytical Methods in Physics (3.0 cr)
- PHYS 4001 - Classical Mechanics (4.0 cr)
- PHYS 4011 - Electromagnetic Theory (4.0 cr)
- PHYS 4021 - Quantum Physics II (4.0 cr)

#### Electives (9 cr)

Take 9 or more credit(s) from the following:

- PHYS 3061 - Instrumentation (3.0 cr)
- PHYS 3091 - Independent Study (1.0 - 3.0 cr)
- PHYS 3094 - Physics Research (1.0 - 6.0 cr)
- PHYS 3561 - Astrophysics (3.0 cr)
- PHYS 4031 - Thermal and Statistical Physics (4.0 cr)
- PHYS 5033 - Introduction to Particle Physics (3.0 cr)
- PHYS 5041 - Optics (3.0 cr)
- PHYS 5052 - Computational Methods in Physics (3.0 cr)
- PHYS 5053 - Data Analysis Methods in Physics (3.0 cr)
- PHYS 5061 - Experimental Methods (3.0 cr)
- PHYS 5090 - Physics Seminar (1.0 cr)

#### Required Courses From Other Programs (21 cr)

##### Math

- MATH 1296 - Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)  
or MATH 1596 - Honors: Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)
- MATH 1297 - Calculus II [LOGIC & QR] (5.0 cr)  
or MATH 1597 - Honors: Calculus II [LOGIC & QR] (5.0 cr)
- MATH 3280 - Differential Equations with Linear Algebra (4.0 cr)
- MATH 3298 - Calculus III (4.0 cr)

##### Advanced Writing

- WRIT 3130 - Advanced Writing: Engineering (3.0 cr)
- or WRIT 3150 - Advanced Writing: Science (3.0 cr)

#### Recommended Courses From Other Programs

##### Chemistry

- CHEM 1153 - General Chemistry I [LE CAT5, NAT SCI] (4.0 cr)
- CHEM 1154 - General Chemistry Lab I [LE CAT4, NAT SCI] (1.0 cr)
- CS 1411 - Introduction to Programming in Matlab (4.0 cr)
- or CS 1511 - Computer Science I [LE CAT3, LOGIC & QR] (5.0 cr)
- or CS 1581 - Honors: Computer Science I [LE CAT3, LOGIC & QR] (5.0 cr)

##### Math

- MATH 3326 - Vectors and Matrices (3.0 cr)
- MATH 3810 - Applied Mathematics: Numerical Methods (4.0 cr)

**Duluth Campus****Physics Minor**

UMD-Physics &amp; Astronomy

**Swenson College of Science and Engineering**

- Program Type: Undergraduate minor related to major
- Requirements for this program are current for Fall 2016
- Required credits in this minor: 34

The physics minor provides an introduction to classical and quantum physics.

**Program Delivery**

This program is available:

- via classroom (the majority of instruction is face-to-face)

**Minor Requirements****Physics Minor Courses (34 cr)****Math**

- [MATH 1296](#) - Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)  
or [MATH 1596](#) - Honors: Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)
- [MATH 1297](#) - Calculus II [LOGIC & QR] (5.0 cr)  
or [MATH 1597](#) - Honors: Calculus II [LOGIC & QR] (5.0 cr)

**Physics I**

- [PHYS 2013](#) - General Physics I [LE CAT5, NAT SCI] (4.0 cr)  
or [PHYS 2017](#) - Honors: General Physics I [NAT SCI] (4.0 cr)
- [PHYS 2014](#) - General Physics Lab I [NAT SCI] (1.0 cr)

**Physics II**

- [PHYS 2015](#) - General Physics II (4.0 cr)
- [PHYS 2016](#) - General Physics Lab II (1.0 cr)

**General Physics**

- [PHYS 1021](#) - Exploring Current Topics in Physics (1.0 cr)
- [PHYS 2021](#) - Relativity and Quantum Physics (4.0 cr)
- [PHYS 2022](#) - Classical Physics (4.0 cr)
- [PHYS 2033](#) - Classical and Quantum Physics Lab (2.0 cr)

**PHYS 3xxx-5xxx**

Take 3 or more credit(s) from the following:

- PHYS 3xxx
- PHYS 4xxx
- PHYS 5xxx

### Duluth Campus

## Statistics and Actuarial Science B.S.

Mathematics & Statistics

### Swenson College of Science and Engineering

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2016
- Required credits to graduate with this degree: 120
- Required credits within the major: 56 to 57
- Degree: Bachelor of Science

The science of statistics is concerned with generating and analyzing data. Actuarial science applies statistical methods to assess risk in the insurance and financial industries. The statistics and actuarial science major prepares students for careers in a wide variety of fields, from banking and government to health care. Advisors have information on the national actuarial examinations.

Honors Requirements: To graduate with department honors, a student must complete the program with an overall and department GPA of 3.50, satisfactorily complete a research project under the guidance of a faculty member, and convey research results in a public presentation.

### Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

### Admission Requirements

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

### General Requirements

The Board of Regents, on recommendation of the faculty, grants degrees from the University of Minnesota. Requirements for an undergraduate degree from University of Minnesota Duluth include the following:

1. Students must meet all course and credit requirements of the departments and colleges or schools in which they are enrolled including an advanced writing course. Students seeking two degrees must fulfill the requirements of both degrees. However, two degrees cannot be awarded for the same major.
2. Students must complete all requirements of the [Liberal Education Program](#).
3. Students must complete a minimum of 120 semester credits.
4. At least 30 of the last 60 degree credits earned immediately before graduation must be awarded by UMD.
5. Students must complete at least half of their courses at the 3xxx-level and higher at UMD. Study-abroad credits earned through courses taught by UM faculty and at institutions with which UMD has international exchange programs may be used to fulfill this requirement.
6. If a minor is required, students must take at least three upper division credits in their minor field from UMD.
7. The minimum cumulative UM GPA required for graduation will be 2.00 and will include only University of Minnesota coursework. A minimum UM GPA of 2.00 is required in each UMD undergraduate major and minor. No academic unit may impose higher grade point standards to graduate.
8. Diploma, transcripts, and certification will be withheld until all financial obligations to the University have been met.

### Program Requirements

A minor in an area other than mathematics or a second major.

#### Introduction to Calculus Courses (10 cr)

##### Calculus I

Take one of the following Calculus I courses:

[MATH 1290](#) - Calculus for the Natural Sciences [LE CAT2, LOGIC & QR] (5.0 cr)

or [MATH 1296](#) - Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)

or [MATH 1596](#) - Honors: Calculus I [LE CAT2, LOGIC & QR] (5.0 cr)

##### Calculus II



Take one of the following Calculus II courses:

[MATH 1297](#) - Calculus II [LOGIC & QR] (5.0 cr)

or [MATH 1597](#) - Honors: Calculus II [LOGIC & QR] (5.0 cr)

**Statistics and Actuarial Science Core Courses (42-43 cr)**

[MATH 3280](#) - Differential Equations with Linear Algebra (4.0 cr)

[MATH 3298](#) - Calculus III (4.0 cr)

[MATH 3355](#) - Discrete Mathematics (4.0 cr)

[STAT 3611](#) - Introduction to Probability and Statistics (4.0 cr)

[STAT 3612](#) - Introduction to Probability and Statistics II (3.0 cr)

[STAT 5511](#) - Regression Analysis (3.0 cr)

[STAT 5531](#) - Probability Models (4.0 cr)

[STAT 5571](#) - Probability (4.0 cr)

[STAT 5572](#) - Statistical Inference (4.0 cr)

Take one of the following two courses:

[MATH 4201](#) - Elementary Real Analysis (4.0 cr)

or [MATH 4326](#) - Linear Algebra (3.0 cr)

[CS 1511](#) - Computer Science I [LE CAT3, LOGIC & QR] (5.0 cr)

or [CS 1581](#) - Honors: Computer Science I [LE CAT3, LOGIC & QR] (5.0 cr)

**Required Math Undergraduate Colloquium (1 cr)**

Students must register their last semester before graduation.

[MATH 3941](#) - Undergraduate Colloquium (1.0 cr)

**Advanced Writing Requirement (3 cr)**

Advanced Writing - 31xx