# Section I

## Liberal Education

**Liberal Education 2015-2016**

LIBERAL EDUCATION MISSION STATEMENT

The mission of Bemidji State University's Liberal Education curriculum is to create an environment where students of diverse backgrounds and abilities can acquire the knowledge, the skills, the values, and the confidence necessary for effective and responsible participation in our changing global society.
LIBERAL EDUCATION REQUIREMENTS

Goal Area 1: Communication (2 courses, 6 credits)
Goal Area 2: Critical Thinking (requires completion of the rest of the Liberal Education program)
Goal Area 3: Natural Science (2 courses, including 1 with a lab component [LC], 7 or more credits)
Goal Area 4: Mathematics (1 course, 3 or more credits)
Goal Area 5: History and the Social and Behavioral Sciences (2 courses, 6 or more credits)
Goal Area 6: Humanities and the Arts (2 courses, 5 or more credits)
Goal Area 7: Human Diversity in the United States (1 course, 2 or more credits)
Goal Area 8: Global Perspective (1 course, 3 or more credits)
Goal Area 9: Ethical and Civic Responsibility (1 course, 2 or more credits)
Goal Area 10: People and the Environment (1 course, 3 credits)
Goal Area 11: Performance and Participation (1 course, 1 or more credits)

Required Credits: 42

If the required courses are completed in less than 42 credits, additional Liberal Education credits must be taken, from any goal area, to bring the total to 42. For students planning to use the completed program to satisfy the general education requirements of another state institution, as provided by the Minnesota Transfer Curriculum, 40 credits must be in Goal Areas 1 through 10.

Goal Area 11 is a Bemidji State University graduation requirement. Students who have completed the Minnesota Transfer Curriculum prior to transfer to Bemidji State University and students who already hold an AA or baccalaureate degree are exempted from the Goal Area 11 requirement.

Graduation planning forms for Liberal Education are available online at www.bemidjistate.edu/offices/records_registration/. Make a selection from the "Graduation Planning Forms and Information" drop-down menu.

**MINNESOTA TRANSFER CURRICULUM (MnTC)**

Goal Areas 1 through 10 comprise the 40 credit Minnesota Transfer Curriculum. A minimum 2.00 GPA is required in MnTC coursework. Grades A, B, C, and D, are accepted in transfer. MnTC is designed to expedite the transfer of courses within the Minnesota State Colleges & Universities system (MnSCU), and to or from the University of Minnesota. If a MnTC goal area is completed at one school, it is deemed to be completed at another MnSCU school. If a student plans to transfer to the University of Minnesota without having completed the entire MnTC, a course-by-course evaluation will be done according to the University's liberal education requirements. Individual courses may be accepted in transfer. Students who complete the MnTC and then transfer to the University of Minnesota-Twin Cities have fulfilled the University's first-year writing requirement, as well as the liberal education requirements.

**POLICIES**

Some courses are listed in two goal areas, and may be used to meet the requirement in both goal areas. However, the credits may be counted only once toward the total. If credits taken do not total 42, the student must take additional credits (from any Liberal Education goal area). Forty credits must be from Goal Areas 1 through 10.

Courses not approved for Liberal Education will generally not be accepted as substitutions for approved courses.

For student transferring out of BSU to other state institutions, the MnTC will be validated with the completion of Goal Areas 1 through 10 and a minimum of 40 credits.

**ASSOCIATE IN ARTS (A.A.) IN LIBERAL EDUCATION**

Bemidji State University offers a curriculum (60 credits minimum) that leads to a two-year Associate in Arts (A.A.) degree in Liberal Education. The 60 credits include all Liberal Education requirements plus electives. With proper advising, this program may be used as the basis for continuing on in a four-year bachelor's degree program. For transfer students, 20 credits and a minimum of one semester must be completed at Bemidji State University.

**THE HONORS PROGRAM**

The Honors Program is an alternative Liberal Education program that emphasizes an interdisciplinary academic curriculum different from the Liberal Education program and a student's major. See "Honors" in Section VII for information.

**DIMENSIONS OF STUDENT LEARNING AT BEMIDJI STATE**

Liberal Education and other programs use the Dimensions of Student Learning for self-assessment.

1. Intellectual Development

- Higher Order Thinking: Use critical thinking and appropriate frameworks for inquiry.
- Knowledge, Value and Abilities Related to the Arts, Humanities, Sciences and Specialized Fields of Study: Understand concepts, ideas, and theories from various disciplines and abilities associated with specialized fields of study.

2. Understanding of Self / Relating to Others

- Values: Examine, evaluate, and express values.
- Communication: Present ideas clearly and effectively in visual, written, and oral form.
- Human Diversity: Recognize the experiences and contributions of diverse groups and cultures.
- Self Development: Demonstrate awareness of concepts, knowledge, and actions which promote one's well-being.

3. Participation in an Emerging Global Society

- Readiness for Careers: Demonstrate knowledge, ethics and abilities as they relate to one's specialization and career choice.
- Responsible Citizenship: Participate as a contributing member of a changing global society.

**STUDY-TRAVEL COURSES**

For Goal Areas 3 through 11, departments may propose, subject to approval, study-travel courses (domestic or abroad) using the All-University course

numbers specified under “Others” at the end of each goal area’s course listing.

## Goal Area 1: Communication

GOAL AREA 1: COMMUNICATION
Requirements

Two courses
Six credits

Goals

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

The practice of critical thinking skills that are particular to the written and oral communication process, including the ability to gather and apply factual information, the imagination to seek a variety of interpretations and perspectives, the skill to analyze logical connections between facts and assumptions, and the ability to recognize and articulate the value assumptions made by ourselves and others.
Student Competencies

Students will be able to:

understand/demonstrate the writing and speaking processes through invention, organization, drafting, revision, editing and presentation.

- participate effectively in groups with emphasis on listening, critical and reflective thinking, and responding.
- locate, evaluate, and synthesize in a responsible manner, material from diverse sources and points of view.
- select appropriate communication choices for specific audiences.
- construct logical and coherent arguments.
- use authority, point-of-view, and individual voice and style in their writing and speaking.
- employ syntax and usage appropriate to academic disciplines and the professional world.

Courses that satisfy this goal area include

ENGL 1151 Composition (3 credits)
ENGL 2152 Argument and Exposition (3 credits)
or ENGL 3150 Writing In The Disciplines (3 credits)

## Goal Area 2: Critical Thinking

GOAL AREA 2: CRITICAL THINKING
Requirement

Completion of the other Liberal Education goal areas (1, 3 through 11).

Goals

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

Students will be able to:

- gather factual information and apply it to a given problem in a manner that is relevant, clear, comprehensive, and conscious of possible bias in the information selected.
- imagine and seek out a variety of possible goals, assumptions, interpretations, or perspectives which can give alternative meanings or solutions to given situations or problems.
- analyze the logical connections among the facts, goals, and implicit assumptions relevant to a problem or claim; generate and evaluate implications that follow from them.
- recognize and articulate the value assumptions which underlie and affect decisions, interpretations, analyses, and evaluations made by ourselves and others.

## Goal Area 3: Natural Science

GOAL AREA 3: NATURAL SCIENCE
Requirements

Two courses
Seven credits
At least one of the courses must have a traditional lab component (LC)

Goals

To improve students' understanding of natural science principles and of the methods of scientific inquiry, i.e., the ways in which scientists investigate natural science phenomena. As a basis for lifelong learning, students need to know the vocabulary of science and to realize that while a set of principles has been developed through the work of previous scientists, ongoing scientific inquiry and new knowledge will bring changes in some of the ways scientists view the world. By studying the problems that engage today's scientists, students learn to appreciate the importance of science in their lives and to understand the value of a scientific perspective. Students are encouraged to study both the biological and physical sciences.
Critical Thinking

The practice of critical thinking skills associated with the scientific process, including analysis, creation and testing of hypotheses, assessing results, and offering interpretation of results.
Student Competencies

Students will be able to:

- demonstrate understanding of scientific theories.
- formulate and test hypotheses by performing laboratory, simulation, or field experiments in a natural science discipline.

- collect scientific data in a laboratory (LC) or laboratory-like (LL) experience, analyze it statistically and graphically, and appreciate its sources of error and uncertainty.
- communicate experimental findings, analyses, and interpretations both orally and in writing.
- evaluate societal issues from a natural science perspective, ask questions about the evidence presented, and make informed judgments about science-related topics and policies.

Courses that satisfy this goal area include

BIOL 1110 Human Biology (4 credits) (LC)
BIOL 1120 General Biology: Evolution And Ecology (3 credits) (LL)
BIOL 1150 Aquatic Systems (3 credits) (LL)
BIOL 1211 Introductory Biology I (4 credits) (LC)
BIOL 1212 Introductory Biology II (4 credits) (LC)
CHEM 1100 Consumer Chemistry (3 credits) (LL)
CHEM 1111 General Chemistry I (4 credits) (LC)
CHEM 1112 General Chemistry II (4 credits) (LC)
CHEM 2211 Principles of Chemistry I (4 credits) (LC)
CHEM 2212 Principles of Chemistry II (4 credits) (LC)
ENVR 2000 Introduction to Environmental Science (3 credits) (LL)
GEOG 2100 Introduction to Physical Geography (3 credits) (LL)
GEOL 1110 Physical Geology (4 credits) (LC)
GEOL 1120 Historical Geology (4 credits) (LC)
GEOL 2730 Introduction to Planetary Science (4 credits) (LL)
PHYS 1101 General Physics I (4 credits) (LC)
PHYS 1102 General Physics II (4 credits) (LC)
PHYS 2101 Physics I (5 credits) (LC)
PHYS 2102 Physics II (5 credits) (LC)
SCI 1110 Physical Science I (4 credits) (LC)
SCI 1120 Physical Science II (4 credits) (LC)
SCI 2100 Astronomy (3 credits) (LL)
SCI 2200 Meteorology (3 credits) (LL)

OTHERS:
All-University course numbers 1951 and 2951 are available to any department for use as study-travel courses, subject to approval, and will satisfy this goal area.

## Goal Area 4: Mathematics

GOAL AREA 4: MATHEMATICS
Requirements

One course
Three credits

Goals

To increase students' knowledge about mathematical and logical modes of thinking. Knowledge of mathematics will enable students to appreciate the breadth of applications of mathematics, evaluate arguments, and detect fallacious reasoning. Students will learn to apply mathematics, logic, and/or statistics to help them make decisions in their lives and careers. Minnesota's public higher education systems have agreed that developmental mathematics includes the first three years of a high school mathematics sequence through intermediate algebra.
Critical Thinking

The practice of critical thinking skills necessary for mathematical and logical reasoning, including analysis, identification of appropriate problem-solving techniques, search for valid proofs.
Student Competencies

Students will be able to:

- illustrate historical and contemporary applications of mathematical/logical systems.
- clearly express mathematical/logical ideas in writing.
- explain what constitutes a valid mathematical/logical argument (proof).
- apply higher-order problem-solving and/or modeling strategies.

Courses that satisfy this goal area include

CS 1309 Problem Solving and Computation (3 credits)
MATH 1100 Mathematical Reasoning (3 credits)
MATH 1107 Introduction to Mathematical Sciences (3 credits)
MATH 1120 Environmental Mathematics (3 credits)
MATH 1170 College Algebra (4 credits)
MATH 1180 Trigonometry (3 credits)
MATH 1470 Precalculus (5 credits)
MATH 2471 Calculus I (5 credits)
MATH 2472 Calculus II (5 credits)
PHIL 2230 Logic (3 credits)
STAT 2610 Applied Statistics (4 credits)
OTHERS:
All-University course numbers 1952 and 2952 are available to any department for use as study-travel courses, subject to approval, and will satisfy this goal area.

## Goal Area 5: History and the Social and Behavioral Sciences

GOAL AREA 5: HISTORY AND THE SOCIAL AND BEHAVIORAL SCIENCES
Requirements

Two courses
Six credits

Goals

To increase students' knowledge of how historians and social and behavioral scientists discover, describe, and explain the behaviors and interactions among individuals, groups, institutions, events, and ideas. Knowledge of history and social and behavioral sciences will better equip students to understand themselves and the roles they play in addressing the issues facing humanity.
Critical Thinking

The practice of critical thinking skills used in history and the social and behavioral sciences, including gathering and applying factual information appropriately, analyzing logical connections, recognizing and articulating value assumptions made by ourselves and others.
Student Competencies

Students will be able to:

- employ the methods and data that historians and social and behavioral scientists use to investigate the human condition.
- examine social institutions and processes across a range of historical periods and cultures.
- use and critique alternative explanatory systems or theories.
- develop and communicate alternative explanations or solutions for contemporary social issues.

Courses that satisfy this goal area include

*ACCT 1100 Financial Literacy (3 credits)
ANTH 1100 Becoming Human - Tracing our Origins (3 credits)
ANTH 2100 Native North Americans (3 credits)
ECON 2000 Markets and Resource Allocation (3 credits)
ECON 2100 Macroeconomics and the Business Cycle (3 credits)
ECON 2150 Interdependence of the Hawaiian Economy and the Environment: Field Projects (1-3 credits)
GEOG 1224 Introduction to Map Use (3 credits)
GEOG 2300 Economic Geography (3 credits)
GEOG 2400 Introduction to Planning (3 credits)
GEOG 3810 Geography of Europe (3 credits)
HST 1114 United States History I, to 1877 (3 credits)
HST 1115 United States History II, since 1877 (3 credits)
HST 1304 World History I, Prehistory-1500 (3 credits)
HST 1305 World History II, 1500-Present (3 credits)
HST 2610 Minnesota History (3 credits)
HST 2660 Women and History (3 credits)
HST 2700 The History of World Religions (3 credits)
HST 3208 Greece and Rome, 1500 BCE-500 CE (3 credits)
HST 3409 Colonialism and Modernization in the Non-Western World (3 credits)
HST 3419 East Asia (3 credits)
HUM 2150 Hawaiian Monarchy and the Hawaiian Sovereignty Movement: Field Projects (1-3 credits)
INST 1107 Introduction to Turtle Island (3 credits)
INST 1202 Indigenous Environmental Current Events (3 credits)
INST 2201 Creation to Contact (3 credits)
INST 2202 Survivance Since Contact (3 credits)
INST 2207 Aboriginal Peoples in Canada (3 credits)
INST 2810 Anishinaabe Place Names (3 credits)
INST 3170 Indigenous Education (3 credits)
INST 3210 Reclaiming Turtle Island (3 credits)
INST 3307 Ojibwe History (3 credits)
INST 3317 Tribal Government and Leadership (3 credits)
INST 3890 Genealogy and Clan Systems (3 credits)
*TADT 2100 Impact Of Technology (2 credits)
POL 1100 Understanding Politics (3 credits)
POL 1200 Introduction to American Politics (3 credits)
PSY 1100 Introductory Psychology (4 credits)
SOC 1104 Society and Social Issues (3 credits)
SOC 2240 Men, Women, and Society: A Sociological Interpretation (3 credits)
SOC 3300 Family and Society (3 credits)
WSGS 2220 Women's Issues (3 credits)
WSGS 2600 Women and Diversity: Crossing Boundaries of Race, Class, Gender & Sexuality (3 credits)

OTHERS:
All-University course numbers 1953 and 2953 are available to any department for use as study-travel courses, subject to approval, and will satisfy this goal area.

*This course will satisfy Liberal Education at BSU, but does not qualify for inclusion in the Minnesota Transfer Curriculum as currently interpreted by MnSCU, and may not be accepted as a Liberal Education course at other MnSCU institutions or the University of Minnesota.

## Goal Area 6: Humanities and the Arts

GOAL AREA 6: HUMANITIES AND THE ARTS
Requirements

Two courses
Five credits

Goals

To expand students' knowledge of the human condition and human cultures, especially in relation to behavior, ideas, and values expressed in works of human imagination and thought. Through study in disciplines such as literature, philosophy, and the fine arts, students will engage in critical analysis, form aesthetic judgments, and develop an appreciation of the arts and humanities as fundamental to the health and survival of any society. Students should have experiences in both the arts and humanities.
Critical Thinking

The practice of critical thinking skills essential to the humanities and the arts, including analysis, ability to seek out a variety of interpretations and perspectives, skill at recognizing and articulating the value assumptions made by ourselves and others.
Student Competencies

Students will be able to:

- demonstrate awareness of the scope and variety of works in the arts and humanities.
- understand those works as expressions of individual and human values within an historical and social context.
- respond critically to works in the arts and humanities.
- engage in the creative process or interpretive performance.
- articulate an informed personal reaction to works in the arts and humanities.

Courses that satisfy this goal area include

ARTH 2551 Art History Survey I (4 credits)
ARTH 2552 Art History Survey II (4 credits)
ENGL 2190 Introduction to Creative Writing (3 credits)
ENGL 2250 Understanding Literature (3 credits)
ENGL 2340 The American Film (3 credits)
ENGL 2350 American Literature, to 1865 (3 credits)
ENGL 2355 American Literature, 1865 to Present (3 credits)
ENGL 2357 British and World Drama (3 credits)
ENGL 2358 British and World Poetry (3 credits)
ENGL 2359 British and World Prose (3 credits)
ENGL 2410 Myth (3 credits)
HUM 1100 Human Culture and Ideas (3 credits)
HUM 2160 Polynesian and Native Hawaiian Culture: Hawaii Field Projects (1-3 credits)

INST 3888 Indigenous Women Writers (3 credits)
INTL 2200 International Study Experience - Humanities (1-3 credits)
MUS 1100 Introduction to Music (3 credits)
MUS 1120 Introduction to Folk, Jazz, and Rock Music (2 credits)
MUS 2110 World Music (2 credits)
MUS 2710 Symphonic Band (1-2 credits)
MUS 3120 The History of Jazz (2 credits)
MUS 3130 The History of Rock and Roll (3 credits)
MUS 3801 History and Literature of Music I (3 credits)
MUS 3802 History and Literature of Music II (3 credits)
MUS 4710 Wind Ensemble (1-2 credits)
OJIB 1100 Ojibwe Culture (4 credits)
OJIB 3213 Ojibwe Oral Literature (4 credits)
PHIL 1100 Introduction to Philosophy (3 credits)
PHIL 2220 Ethics (3 credits)
PHIL 2240 Aesthetics (3 credits)
PHIL 2250 Human Nature (3 credits)
PHIL 2260 Women and Philosophy (3 credits)
PHIL 2310 Philosophy in Literature (3 credits)
PHIL 2330 Philosophies of Non-Violence (3 credits)
PHIL 3310 Ancient and Medieval Philosophy (3 credits)
PHIL 3320 Modern Philosophy (3 credits)
PHIL 3330 Nineteenth Century Philosophy (3 credits)
PHIL 3340 Twentieth-Century Philosophy (3 credits)
PHIL 3360 Asian Philosophy (3 credits)
PHIL 3390 Marxist Philosophy (3 credits)
SPCM 1100 Public Speaking (3 credits)
SPCM 2100 Special Topics in Oral Communication (2 credits)
SPCM 2800 Listening (2 credits)
TADD 1440 Design and Drawing Foundations (4 credits)
TADD 3450 History of Modern Design (4 credits)
TADD 3648 Color Theory (4 credits)
TADD 3649 Introduction to Painting (4 credits)
TADD 3748 Ceramics/Hand Building (4 credits)
TADD 3749 Ceramics/Wheel (4 credits)

OTHERS:
All-University course numbers 1954 and 2954 are available to any department for use as study-travel courses, subject to approval, and will satisfy this goal area.

## Goal Area 7: Human Diversity in the United States

GOAL AREA 7: HUMAN DIVERSITY IN THE UNITED STATES
Requirements

One course
Two credits

Goals

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

The practice of critical thinking skills required for clear understanding of human diversity, including the ability to gather and apply factual information, analysis of logical connections between facts and assumptions, skill at recognizing and articulating the value assumptions made by ourselves and others.
Student Competencies

Students will be able to:

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

Courses that satisfy this goal area include

ANTH 2100 Native North Americans (3 credits)
*ED 2007 Anatomy of Hate (3 credits)
ENGL 2350 American Literature, to 1865 (3 credits)
ENGL 2355 American Literature, 1865 to Present (3 credits)
GEOG 1400 World Regional Geography (3 credits)
GEOG 2200 Introduction to Human Geography (3 credits)
*HLTH 2800 Multicultural Health in America (2 credits)
HST 1114 United States History I, to 1877 (3 credits)
HST 1115 United States History II, since 1877 (3 credits)
HST 2610 Minnesota History (3 credits)
HUM 2150 Hawaiian Monarchy and the Hawaiian Sovereignty Movement: Field Projects (1-3 credits)
INST 1107 Introduction to Turtle Island (3 credits)
INST 2201 Creation to Contact (3 credits)
INST 2202 Survivance Since Contact (3 credits)
INST 2810 Anishinaabe Place Names (3 credits)
INST 3170 Indigenous Education (3 credits)
INST 3307 Ojibwe History (3 credits)
INST 3890 Genealogy and Clan Systems (3 credits)
MASC 2100 Minorities in the Media (3 credits)
MASC 2190 International Communication (3 credits)
MUS 1120 Introduction to Folk, Jazz, and Rock Music (2 credits)
MUS 3120 The History of Jazz (2 credits)
MUS 3130 The History of Rock and Roll (3 credits)
OJIB 1100 Ojibwe Culture (4 credits)
PHIL 3340 Twentieth-Century Philosophy (3 credits)
PSY 2200 Human Sexuality (3 credits)
SOC 2230 Race and Ethnic Relations (3 credits)
SOC 2240 Men, Women, and Society: A Sociological Interpretation (3 credits)
*SOWK 2110 Intercultural Communication (3 credits)
SPCM 1090 Interpersonal Communication (3 credits)
WSGS 2220 Women's Issues (3 credits)
WSGS 2223 Men's Issues (3 credits)
WSGS 2600 Women and Diversity: Crossing Boundaries of Race, Class, Gender & Sexuality (3 credits)

OTHERS:
All-University course numbers 1955 and 2955 are available to any department for use as study-travel courses, subject to approval, and will satisfy this goal area.

*This course will satisfy Liberal Education at BSU, but does not qualify for inclusion in the Minnesota Transfer Curriculum as currently interpreted by

MnSCU, and may not be accepted as a Liberal Education course at other MnSCU institutions or the University of Minnesota.

## Goal Area 8: Global Perspective

GOAL AREA 8: GLOBAL PERSPECTIVE
Requirements

One course
Three credits

Goals

To increase students' understanding of the growing interdependence of nations and peoples and develop their ability to apply a comparative perspective to cross-cultural social, economic and political experiences.
Critical Thinking

The practice of critical thinking skills associated with possessing a global perspective, including ability to gather and apply factual information, skill at identifying alternative perceptions, recognition and articulation of value assumptions, analysis of connections between facts and assumptions, etc.
Student Competencies

Students will be able to:

- describe and analyze political, economic, and cultural aspects of societies in their historical and/or contemporary settings.
- analyze specific international problems, illustrating the cultural, economic, and political differences that affect their solution.
- understand the role of a world citizen and the responsibility world citizens share for their common global future.
- demonstrate knowledge of cultural, social, religious and linguistic differences.

Courses that satisfy this goal area include

ANTH 1110 Cultural Anthropology (3 credits)
ARTH 2551 Art History Survey I (4 credits)
ARTH 2552 Art History Survey II (4 credits)
CHIN 1111 Elementary Chinese I (4 credits)
CHIN 1112 Elementary Chinese II (4 credits)
CRJS 2221 Comparative Justice (3 credits)
ECON 1500 Historical Development of the Mixed Economy (3 credits)
*ED 1111 American Sign Language 1 (3 credits)/ML 1111 American Sign Language 1 (3 credits)
*ED 1112 American Sign Language 2 (3 credits)/ML 1112 American Sign Language 2 (3 credits)
ENGL 2357 British and World Drama (3 credits)
ENGL 2358 British and World Poetry (3 credits)
ENGL 2359 British and World Prose (3 credits)
ENGL 2410 Myth (3 credits)
GEOG 1400 World Regional Geography (3 credits)
GEOG 2200 Introduction to Human Geography (3 credits)
GEOG 3820 Geography of East, South, and Southeast Asia (3 credits)
HST 1304 World History I, Prehistory-1500 (3 credits)
HST 1305 World History II, 1500-Present (3 credits)
HST 2580 Russia (3 credits)
HST 2660 Women and History (3 credits)
HST 2700 The History of World Religions (3 credits)
HST 3208 Greece and Rome, 1500 BCE-500 CE (3 credits)
HST 3409 Colonialism and Modernization in the Non-Western World (3 credits)
HST 3419 East Asia (3 credits)
HUM 1100 Human Culture and Ideas (3 credits)
HUM 2160 Polynesian and Native Hawaiian Culture: Hawaii Field Projects (1-3 credits)
INST 2207 Aboriginal Peoples in Canada (3 credits)
INST 3210 Reclaiming Turtle Island (3 credits)
INST 3317 Tribal Government and Leadership (3 credits)
INTL 1160 Focus On ... (1 credit)
INTL 2100 Instructed International Tour (1-3 credits)
INTL 2200 International Study Experience - Humanities (1-3 credits)
INTL 2300 Comparative International Study Project (1-3 credits)
INTL 2400 International Study Experience Social Science (1-3 credits)
MASC 2190 International Communication (3 credits)
MUS 2110 World Music (2 credits)
OJIB 1111 Elementary Ojibwe I (4 credits)
OJIB 1112 Elementary Ojibwe II (4 credits)
OJIB 2211 Intermediate Ojibwe I (4 credits)
OJIB 2212 Intermediate Ojibwe II (4 credits)
OJIB 3311 Advanced Ojibwe I (4 credits)
OJIB 3312 Advanced Ojibwe II (4 credits)
PHIL 2250 Human Nature (3 credits)
PHIL 2260 Women and Philosophy (3 credits)
PHIL 3310 Ancient and Medieval Philosophy (3 credits)
PHIL 3360 Asian Philosophy (3 credits)
PHIL 3390 Marxist Philosophy (3 credits)
POL 1300 Introduction to International Relations (3 credits)
POL 1400 Introduction to Comparative Politics (3 credits)
PSY 3210 Death and Culture (3 credits)
SOC 2200 Social Movements and Change (3 credits)
*SOWK 2110 Intercultural Communication (3 credits)
SPAN 1111 Elementary Spanish I (4 credits)
SPAN 1112 Elementary Spanish II (4 credits)
SPAN 2211 Intermediate Spanish I (3 credits)
SPAN 2212 Intermediate Spanish II (3 credits)
SPAN 3311 Composition and Conversation (3 credits)
SPAN 3312 Advanced Readings and Conversation (3 credits)

OTHERS:
All-University course numbers 1956 and 2956 are available to any department for use as study-travel courses, subject to approval, and will satisfy this goal area.

*This course will satisfy Liberal Education at BSU, but does not qualify for inclusion in the Minnesota Transfer Curriculum as currently interpreted by MnSCU, and may not be accepted as a Liberal Education course at other MnSCU institutions or the University of Minnesota.

## Goal Area 9: Ethical and Civic Responsibility

GOAL AREA 9: ETHICAL AND CIVIC RESPONSIBILITY
Requirements

One course
Two credits

Goals

To develop students' capacity to identify, discuss, and reflect upon the ethical dimensions of political, social, and personal life and to understand the ways

in which they can exercise responsible and productive citizenship. While there are diverse views of social justice or the common good in a pluralistic society, students should learn that responsible citizenship requires them to develop skills to understand their own and others' positions, be part of the free exchange of ideas, and function as public-minded citizens.
Critical Thinking

The practice of critical thinking skills typical of those who exhibit ethical and civic responsibility, including analysis of the connections between facts and assumptions, consciousness of bias in factual information, recognition and articulation of the value assumptions made by ourselves and others.
Student Competencies

Students will be able to:

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

Courses that satisfy this goal area include

*ACCT 1100 Financial Literacy (3 credits)
BIOL 2339 Ethics of Fish and Wildlife Management (3 credits)
CRJS 1000 The American Legal System (3 credits)
*CS 1107 Introduction to Computers (3 credits)
ECON 2000 Markets and Resource Allocation (3 credits)
*ED 2007 Anatomy of Hate (3 credits)
ENVR 2150 Wilderness Ethics: Projects for Environmental Field Programs (1-3 credits)
GEOG 2400 Introduction to Planning (3 credits)
HST 2800 Reacting to the Past (3 credits)
LEAD 3500 Theories and Contexts of Leadership (3 credits)
MASC 1100 Mass Media and Society (3 credits)
MASC 2100 Minorities in the Media (3 credits)
*PHED 2200 A Lifestyle for Wellness (2 credits)
PHIL 2220 Ethics (3 credits)
PHIL 2330 Philosophies of Non-Violence (3 credits)
POL 1100 Understanding Politics (3 credits)
POL 1200 Introduction to American Politics (3 credits)
POL 1300 Introduction to International Relations (3 credits)
SOC 2230 Race and Ethnic Relations (3 credits)
SOC 3090 Social and Ethical Issues in Health and Medicine (3 credits)
SPCM 1090 Interpersonal Communication (3 credits)
*TADT 2100 Impact Of Technology (2 credits)

OTHERS:
All-University course numbers 1957 and 2957 are available to any department for use as study-travel courses, subject to approval, and will satisfy this goal area.

*This course will satisfy Liberal Education at BSU, but does not qualify for inclusion in the Minnesota Transfer Curriculum as currently interpreted by MnSCU, and may not be accepted as a Liberal Education course at other MnSCU institutions or the University of Minnesota.

## Goal Area 10: People and the Environment

GOAL AREA 10: PEOPLE AND THE ENVIRONMENT
Requirements

One course
Three credits

Goals

To improve students' understanding of today's complex environmental challenges. Students will examine the interrelatedness of human society and the natural environment. Knowledge of both bio-physical principles and socio-cultural systems is the foundation for integrative and critical thinking about environmental issues.
Critical Thinking

The practice of critical thinking skills associated with environmental awareness, including ability to gather and apply factual information, recognition and articulation of the value assumptions made by ourselves and others, consciousness of possible bias in factual information.
Student Competencies

Students will be able to:

- explain the basic structure and function of various natural ecosystems and of human adaptive strategies within those systems.
- discern patterns and interrelationships of bio-physical and socio-cultural systems.
- describe the basic institutional arrangements (social, legal, political, economic, religious) that are evolving to deal with environmental and natural resource challenges.
- evaluate critically environmental and natural resource issues in light of understandings about interrelationships, ecosystems, and institutions.
- propose and assess alternative solutions to environmental problems.
- articulate and defend the actions they would take on various environmental issues.

**COMPLETE ONE OF THE FOLLOWING OPTIONS:**

**OPTION A: Complete one of the following courses.**

BIOL 2925 People & The Environment: Biological Perspectives on the Environment (3 credits)
CHEM 2925 People and the Environment: Chemistry Perspective (3 credits)
ECON 2925 People and the Environment - Economic Perspective (3 credits)
*ED 2925 People and the Environment - Education Perspective (3 credits)
ENGL 2925 People and the Environment: American Nature Writers (3 credits)
ENGL 2926 People and the Environment: Writing and Nature (3 credits)
ENVR 2925 People and the Environment - The Global Pollution Perspective (3 credits)
GEOG 2925 People and the Environment: Geography Perspective (3 credits)
GEOL 1110 Physical Geology (4 credits)
GEOL 2925 People and the Environment: Earth Science Perspective (3 credits)

*HLTH 2925 People and the Environment: A Health Perspective (3 credits)
HST 2925 People and the Environment: Environment and History (3 credits)
MASC 2925 People and the Environment: Mass Media Perspectives (3 credits)
*PHED 2925 People and the Environment: (3 credits)
PHIL 2925 People and the Environment: Environmental Ethics (3 credits)
POL 2925 People and the Environment: Political Science Perspective (3 credits)
SCI 2925 People and the Environment: Science Perspective (3 credits)
SOC 2925 People and the Environment: Sociology Perspective (3 credits)
SPCM 2925 People and the Environment: Communication Perspective (3 credits)
OTHERS:
All-University course numbers 1958 and 2958 are available to any department for use as study-travel courses, subject to approval, and will satisfy this goal area (also requires approval by the People and the Environment director).

**OPTION B: Complete one Companion Course and the one credit Sustainability course.**

**Companion Courses: Complete one of the following:**

BIOL 1120 General Biology: Evolution And Ecology (3 credits)
ENVR 2000 Introduction to Environmental Science (3 credits)
GEOL 1110 Physical Geology (4 credits)
MATH 1120 Environmental Mathematics (3 credits)
Other courses may be approved, see the course schedule for additional details.

**Sustainability Course: Complete the one credit Sustainability course, see the course schedule for additional details.**

One course
One credit

*This course will satisfy Liberal Education at BSU, but does not qualify for inclusion in the Minnesota Transfer Curriculum as currently interpreted by MnSCU, and may not be accepted as a Liberal Education course at other MnSCU institutions or the University of Minnesota.

## Goal Area 11: Performance and Participation

GOAL AREA 11: PERFORMANCE AND PARTICIPATION

NOTE: Goal Area 11 is not part of the Minnesota Transfer Curriculum but is a Bemidji State University graduation requirement for students not transferring in the Minnesota Transfer Curriculum.

Requirement

One credit

Goals

To provide students with an opportunity to develop skills for participation in a variety of activities and to prepare students for responsible and effective participation in groups and communities.
Critical Thinking

The practice of critical thinking skills used in performance and group participatory activities, including ability to gather and apply information, skill at seeking various perspectives, recognition and articulation of the value assumptions made by ourselves and others, etc.
Student Competencies

Students will be able to:

- participate effectively in a variety of artistic, political, recreational, health and public service, or social service settings.
- participate cooperatively in group athletic activity or artistic performance.

Courses that satisfy this goal area include

ENGL 2150 Technical Writing (3 credits)
GEOG 1224 Introduction to Map Use (3 credits)
HST 2800 Reacting to the Past (3 credits)
MUS 2710 Symphonic Band (1-2 credits)
MUS 3800 Varsity Singers (1-2 credits)
MUS 4710 Wind Ensemble (1-2 credits)
MUS 4800 Bemidji Choir (1-2 credits)
PHED 1114 Skills For Life: Beginning Swimming (1 credit)
PHED 1139 Beginning Scuba Diving (1 credit)
PHED 1180 Canoeing (1 credit)
PHED 1190 Skills for Life: Sailing (1 credit)
PHED 1200 Introduction To Rock Climbing (1 credit)
PHED 1230 Yoga (1 credit)
PHED 1240 Skills for Life: Techniques of Neuromuscular Relaxation (1 credit)
PHED 1260 Skills for Life: Cycling (1 credit)
PHED 1300 Skills for Life: Weight Training (1 credit)
PHED 1380 Skills for Life: Self Defense (1 credit)
PHED 1430 Skills for Life: Archery (1 credit)
PHED 1454 Skills for Life: Golf (1 credit)
PHED 1474 Skills for Life: Bowling (1 credit)
PHED 1490 Skills for Life: Badminton (1 credit)
PHED 1500 Skills for Life: Ice Skating (1 credit)
PHED 1530 Snowboarding (1 credit)
PHED 1540 Skills for Life: Curling (1 credit)
PHED 1554 Skills for Life: Cross Country Skiing (1 credit)
PHED 1574 Skills for Life: Tennis (1 credit)
PHED 1604 Skills for Life: Social Dance I (1 credit)
PHED 1606 Skills for Life: American Style Ballroom Dance I (1 credit)
PHED 1608 Skills for Life: International Style Ballroom Dance (1 credit)
PHED 1764 Skills for Life: Basketball (1 credit)
PHED 1784 Skills for Life: Volleyball (1 credit)
PHED 1814 Skills for Life: Softball (1 credit)
PHED 1840 Skills for Life: Racquetball (1 credit)
PHED 1854 Skills for Life: Soccer (1 credit)
PHED 1890 Lifetime Fitness (2 credits)
PSY 1010 Stress and Coping (2 credits)
SPCM 1100 Public Speaking (3 credits)
SPCM 2100 Special Topics in Oral Communication (2 credits)
SPCM 2800 Listening (2 credits)

OTHERS:
All-University course numbers 1959 and 2959 are available to any department for use as study-travel courses, subject to approval, and will satisfy this goal area.

# Section II

## Academic Integrity, Rights and Responsibilities

**BSU Policy Statement on Academic Integrity**

Bemidji State University fosters the highest standards of academic integrity and the highest regard for truth and honesty. The attempt by students to present as their own any work not actually performed by them; collusion, fabrication, and cheating on examinations, papers, and other course-related work; stealing, duplicating, or selling examinations; substituting for others in class discussions or examinations; producing other students' papers or projects; knowingly furnishing false or misleading academic information to University officials or on official University records; and altering such information on official University records are considered violations of academic integrity and destructive to the central mission of the University.

Students who violate academic integrity shall, after due process, be subject to University sanctions that may include failure on assignments and examinations and in courses, and suspension or expulsion.

Established academic integrity policies, procedures, and sanctions are communicated in classes and publications such as the student/faculty guides, and during orientation programs. For more information see the Student Handbook.

Rights and Responsibilities
Code of Conduct

**STUDENT RESPONSIBILITIES**

Students are also expected to be familiar with academic policies and procedures as described in this catalog, as well as in the Handbook.

Students are expected to be familiar with the Student Code of Conduct and the Student Conduct System as presented in the Student Handbook. The rights and responsibilities of students and the expectations of the University are described in the guide, along with grievance and other procedures. Behavior that is threatening to the safety or welfare of one's self or others, or that is harassing or discriminatory in nature, will be reviewed promptly by the University, and appropriate action will be taken. The Student Code of Conduct does not replace or reduce the requirements of civil or criminal laws. The Student Handbook is accessible at .

EXCERPT FROM THE PREAMBLE TO THE CODE OF CONDUCT

The campus is not a sanctuary from the general law. University community members violating civil or criminal law may be subject to University Conduct procedures for the same conduct when the conduct occurs on campus or when it occurs off campus but is directly related to the University community. The University may initiate Student Conduct action at its discretion.

**Family Educational Rights and Privacy Act**

Bemidji State University protects the privacy of student education records as required by the Family Educational Rights and Privacy Act (FERPA) of 1974 and the Minnesota Government Data Practices Act (MGDPA). These federal and state laws provide information on the privacy and confidentiality of student educational records. This notice of student rights, policy and procedures is available in hard copy and in alternative formats from the Office of Student Development and Enrollment, Deputy Hall 313 and the Records and Registration Office, Deputy Hall 101.

The laws are applicable to postsecondary institutions in two primary ways: 1) institutions must permit students to inspect and review their education records; and 2) in most instances only information defined and publicized by the institution in semester class schedules as "directory information" will be released without the expressed consent of the student unless otherwise directed by the student. However, under certain circumstances all educational records may be released without consent of the student.

More detailed information regarding data privacy laws is available in the Student Handbook.
Student Right to Know Act

As required by federal law, the rates at which full-time students complete bachelor's degrees from the University within a specified period of time are available on request in the Office of Institutional Research or in the Admissions Office in Deputy Hall.
Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act

The Annual Security Report, published by the Department of Public Safety, is distributed to all students, prospective students, faculty, staff, and prospective employees, and is available upon request. The report, which is in compliance with the Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act, contains security policies and practices and campus crime statistics. The report may also be viewed online at www.bemidjistate.edu/offices/safety/annual_report/.
Victims' Bill of Rights

Provisions addressing the rights of victims of sexual violence or assault were added to existing Minnesota State University Board policy on September 30, 1992. The Victims' Bill of Rights policy applies to all students, faculty, and staff, of Bemidji State University and the Minnesota State Colleges and Universities system. The policy is printed in the Student Handbook and in the Annual Security Report.

**Additional Information on Rights and Responsibilities**

For further information on rights and responsibilities, refer to the following publications:

The Student Handbook (www.bemidjistate.edu/students/handbook/)
Annual Security Report (Department of Public Safety, Walnut Hall, 218-755-3888)
Residential Life Handbook (Residential Life, Walnut Hall, 218-755-3750)
Department and program handbooks (department and program offices)

**Academic Grievances**

The grievance procedures for challenging grades and registering complaints about faculty, courses, teaching procedures, and related academic concerns are described fully in the Policies and Procedures section of the Student Handbook. This section also describes administrative procedures for dealing with non-academic complaints such as discrimination and harassment. The Handbook is accessible at .

**Written Student Complaints**

The University maintains a record of written student complaints filed with the offices of the President, the Provost and Vice President for Academic Affairs, the Vice President for Student Development and Enrollment, and the Vice President for Finance and Administration. Summary information regarding student complaints to these administrative offices is provided to the Higher Learning Commission (North Central Association), upon their request and in compliance with data privacy policy, as a part of the University's periodic accreditation

review.

Bemidji State University endorses the Minnesota State Legislature's ethic of zero tolerance toward sexual violence and sexual harassment. All members of the Bemidji State Community are expected to comply with the letter of protective laws, and to take the spirit of such laws to heart. For information on the consequences of violating regulations, and on reporting incidents, refer to sexual violence/harassment publications available at the Hobson Memorial Union Information Desk and other campus locations, or contact the Office of Student Development and Enrollment, Deputy Hall, 218-755-2075; Department of Public Safety, Walnut Hall, 218-755-3888; the Human Resources Office, Deputy Hall, 218-755-3966, or the Office for Responsible Men, Responsible Women, 218-755-2080.

## Academic Progress and Status

**Academic Status**

Full-time and Part-time Status: A full-time undergraduate student is defined as one who has enrolled for a minimum of twelve (12) semester credits per semester. A full-time graduate student is defined as one who has enrolled for a minimum of nine (9) semester credits. Full-time status is required to qualify for insurance coverage and for certain federal and state financial aid programs (contact the Financial Aid Office). The Deans' List requires a minimum of twelve (12) semester credits of letter grades (A, B, C, D, or F). Semester credits audited are excluded when computing full-time status.

**Academic Progress**

**I. MINIMUM GRADE POINT AVERAGE REQUIREMENT**

A student will be suspended if the following grade point average (GPA) is not attained:

Semester Hours Attempted * / Minimum GPA Required**

0-15 / 1.50

16-30 / 1.75

31-59 / 1.90

60 & above / 2.00

* Credits transferred from other institutions as well as credits attempted at BSU.

**Cumulated GPA at Bemidji State University (excludes grades earned at previously attended institutions).

**II. MINIMUM PERCENT COMPLETION**

A student is required to obtain a 66.67% course completion rate. Credits accepted in transfer are added to the BSU attempted credits and BSU earned credits, the calculated total earned credits is then divided by the calculated attempted credits to determine the percent completion rate.

**III. PROCESS**

Cumulative values are used in determining if academic progress has been met. Students not meeting the minimum grade point average or the minimum percent completion requirements will be notified of their academic progress status. Academic progress statuses include Academic Warning and Academic Suspension. See below for the criteria for each academic progress status.

**IV. DETERMINATION OF ACADEMIC PROGRESS STANDING**

Academic Warning

The first time a student fails the minimum cumulative grade point average requirement or the cumulative percent completion requirement during the semester, the student will be placed on ACADEMIC WARNING.

Students placed on academic warning are eligible for continued enrollment and are expected to make progress toward meeting the minimum cumulative grade point average requirement and minimum percent completion requirement.

**REQUIREMENTS FOR ACADEMIC WARNING**

Upon conclusion of the warning term, if the student has meet BSU's minimum cumulative grade point average and cumulative percent completion, the student's warning status will be removed.

**Academic Suspension**

At the conclusion of the warning term, those students not meeting the minimum cumulative GPA or minimum cumulative percent completion requirement will be suspended for the minimum time period indicated below.

# of Suspensions / Period of Suspension

1 / One semester

2 / One calendar year

3 or more / Two calendar years

**V. REINSTATEMENT/APPEAL PROCESS**

Students suspended from Bemidji State University who wish to return following the period of suspension must submit a petition to the Records & Registration Office. The petition should include information on the circumstances that affected past performance and a plan to be successful in achieving future academic progress goals. Readmission will be considered provided that certain conditions regarding academic deficiencies are agreed to in advance and reflected in the subsequent registration.

Those students on suspension due to poor academic performance may submit a petition/appeal prior to sitting out the term of suspension if extenuating circumstances impeded their academic performance.

All petitions are submitted to the Records & Registration Office to be reviewed by the Student Programs & Admissions (SPA) Committee. In order to allow sufficient time to review the petition, it is recommended that appeals are submitted at least two weeks prior to the start of the semester for which the appeal is being requested.

**Academic Probation**

Students with an approved petition for academic reinstatement will be placed on academic probation. While on probation, the student will be required to meet the terms that are set forth in the approved petition.

Note: Students returning to BSU after suspension will always be subject to the minimum percent completion rate and GPA requirements stated above.

**Extended Absences and Grade Point Average (GPA) Adjustment**

If students have less than a 2.00 cumulative GPA, they may petition the Records and Registration Office for an adjustment of the GPA under the following conditions:

A minimum of two (2) years absence from the University;

When the first two (2) successive semesters of attendance have been completed after returning to Bemidji State University as a full-time, on-campus student, with at least a 2.25 GPA for each semester;

The GPA may be adjusted to a 2.00 level at the time the above criteria have been satisfied by disallowing sufficient previous course work in which low grades have been earned. This may result in reduced total semester credits earned toward graduation.

A student may be required to validate course work that was completed more than ten (10) years prior to graduation which is to be included in an undergraduate major. Such validation requires the approval of both the department chair and the dean of the major field. The department of the major program may require that students repeat such courses or take additional course work.

## Academic Policies

**Academic Year**

Bemidji State University functions on an academic semester system consisting of fall and spring semesters of approximately sixteen (16) weeks each, and a summer term. Credits earned during summer term may be applied toward the fulfillment of degree requirements.

**Exceptions and Course Substitutions**

Any student who has cause to request an exception and/or course substitution to existing academic requirements must fill out the appropriate form to initiate the request. Students requesting an exception should submit a petition to the Student Programs and Admissions (SPA) Committee. Students requesting a course substitution should fill out a Course Substitution Form. The student's advisor and department chair should sign the form.

The Substitute/Transfer Equivalency Form and Academic Petition Form are available online at www.bemidjistate.edu/offices/records_registration/ (under "Forms") and at the Records and Registration Office and must be returned to that office after the appropriate signatures have been secured.

**Withdrawal from School**

Complete withdrawal from all courses must be finished prior to the withdrawal deadline published in the Academic Calendar, except in hardship cases.

A "W" grade is assigned when students formally withdraw from a course for which they are financially responsible.

Failure to withdraw officially will result in "F" grades.

For refund information, see Tuition and Fees.

Withdrawal may require repayment of financial aid and/or GI Bill payments and reassessment of eligibility. For return to the University see "Readmission of Former Students" under the Admissions webpage.

**Instructions for Complete Withdrawal from School**

If you are withdrawing from ALL of your classes, you are advised to complete the following steps:

*If you would like to speak to a counselor or faculty member about any academic or personal circumstances related to your withdrawal:*
You are encouraged to stop by the Student Center for Health & Counseling in Cedar Hall 1st floor or call 755-2024 to set up a confidential meeting, or contact your academic advisor.

*If you live in the residence halls and/or have a meal plan:*
Contact Residential Life in Walnut Hall, 755-3750, to terminate your Residential Life Contract and receive directions for proper checkout procedures.

*If you received any type of financial aid:*
Contact the Financial Aid Office in Deputy 114, 755-2034, to address the following: 1) repayment of aid received if you are withdrawing prior to 60% of the term being completed; 2) your eligibility for future financial aid when you return to school; and 3) exit student loan information.

*If you received a Perkins Loan:*
Contact the Loan Repayment Office in Deputy 203, 755-2095, for an exit interview and to update your Perkins Loan information. Knowing your rights and responsibilities in relation to this loan may help you in future funding and enrollment.

*All students withdrawing must:*
Contact the Cashier's Office in Deputy 202, 755-2046, to determine if you are to receive a refund or if a financial aid repayment is necessary.

*Finally, you must withdraw from all your classes prior to the last day to withdraw as published in the semester class schedule by:*
Web Registration: Go to the BSU homepage (www.bemidjistate.edu) under myBSU, then MNSCU E-Services.

Questions? Need assistance? Check out the last few pages of the class schedule for further information or stop by the Records and Registration Office, Deputy 101, or the Office of Student Development and Enrollment, Deputy 313.

## Registration Policies

Admissions: https://www.bemidjistate.edu/admissions/undergraduate/

Registration is not complete until tuition charges and fees incurred at registration have been paid in accordance with University procedures. Preregistered students are requested to comply with the payment deadline specified in the semester class schedule.

Late registrants must obtain instructors' approval to register for classes.

A hold will be placed on registration for students who have not paid any tuition charges and fees by the published deadline in the Academic Calendar.

Students must obtain instructor approval to register for a class after the "last day to add" date published in the Academic Calendar.

Grades, transcripts, and diplomas will not be released for students who have outstanding financial obligations at the close of a semester or summer term.

**Add, Drop or Change of Courses**

The following guidelines apply unless otherwise noted in the current Class Schedule.

An instructor may decide to drop a student who does not attend the first three

class meetings.

Schedule changes may be made without financial obligation by the deadline published in the Academic Calendar.

Students must obtain instructor approval to register for a class after the "last day to add" date published in the Academic Calendar.

Students may withdraw (drop) from a course at any time up to the published deadline in the Academic Calendar, unless otherwise noted in the current semester class schedule--after this time, no course may be dropped except in special hardship cases. A student wishing to withdraw from a course must follow the proper procedure using the Web registration option. Courses dropped after the fifth day of classes will be assigned a "W" grade.

See "Academic Policies" for withdrawal from all courses.

No refunds for dropped courses will be given after the add/drop deadline as published in the Academic Calendar.

No course may be dropped after the published withdrawal deadline in the Academic Calendar, except in special hardship cases.

No student is added or dropped from a course until the proper procedure is followed using the Web registration option.

Withdrawal from classes could affect continued eligibility for financial aid. For details, visit the Financial Aid website.

**Repeating Courses**

Apart from those courses whose descriptions state they may be repeated for additional credit, any course may be repeated once for the purpose of replacing the former grade with a new grade. Students wishing to do this must file a Repeat Form with the Records and Registration Office. Once the form is filed, the new grade, whether higher, the same, or lower, will be substituted for the original grade in computing the grade point average and total semester credits applied toward graduation. However, the original course and its grade will remain on the transcript. Classes originally taken for a letter grade must be repeated for a letter grade.

**Prerequisites and Corequisites**

A prerequisite is a course that must be taken or an experience that must be acquired prior to registration for the course that lists the prerequisite. Departments may waive prerequisites in specific cases.

A corequisite is a course that must be taken or an experience that must be acquired concurrent with enrollment in the course that lists the corequisite. Departments may waive corequisites in specific cases.

It is the prerogative of the instructor to drop students from a class if they have not completed the prerequisites and/or corequisites as listed in the college catalog.
Withdrawal from School

**Schedule Conflicts**

A student may not register for two or more courses scheduled to meet at the same time during a semester without the consent of both instructors.

# Registration

Admissions: http://www.bemidjistate.edu/admissions/undergrad/

**Academic Year**

Bemidji State University functions on an academic semester system consisting of fall and spring semesters of approximately sixteen (16) weeks each, and a summer term. Credits earned during summer term may be applied toward the fulfillment of degree requirements.

**Exceptions and Course Substitutions**

Any student who has cause to request an exception and/or course substitution to existing academic requirements must fill out the appropriate form to initiate the request. Students requesting an exception should submit a petition to the Student Programs and Admissions (SPA) Committee. Students requesting a course substitution should fill out a Course Substitution Form. The student's advisor and department chair should sign the form.

The Substitute/Transfer Equivalency Form and Academic Petition Form are available online at www.bemidjistate.edu/offices/records_registration/ (under "Forms") and at the Records and Registration Office and must be returned to that office after the appropriate signatures have been secured.
Schedule Conflicts

A student may not register for two or more courses scheduled to meet at the same time during a semester without the consent of both instructors.

**Withdrawal from School**

Complete withdrawal from all courses must be finished prior to the withdrawal deadline published in the Academic Calendar, except in hardship cases.

A "W" grade is assigned when students formally withdraw from a course for which they are financially responsible.

Failure to withdraw officially will result in "F" grades.

For refund information, see the section on Tuition and Fees.

Withdrawal may require repayment of financial aid and/or GI Bill payments and reassessment of eligibility. For return to the University see "Readmission of Former Students" under the Admission section of this catalog.

**Instructions for Complete Withdrawal from School**

If you are withdrawing from ALL of your classes, you are advised to complete the following steps:

If you would like to speak to a counselor or faculty member about any academic or personal circumstances related to your withdrawal:

You are encouraged to stop by the Counseling Center in Birch Hall 1A or call 755-2024 to set up a confidential meeting, or contact your academic advisor.

If you live in the residence halls and/or have a meal plan:

Contact Residential Life in Walnut Hall, 755-3750, to terminate your Residential Life Contract and receive directions for proper checkout procedures.

If you received any type of financial aid:

Contact the Financial Aid Office in Deputy 114, 755-2034, to address the following: 1) repayment of aid received if you are withdrawing prior to 60% of the term being completed; 2) your eligibility for future financial aid when you

return to school; and 3) exit student loan information.

If you received a Perkins Loan:

Contact the Loan Repayment Office in Deputy 203, 755-2095, for an exit interview and to update your Perkins Loan information. Knowing your rights and responsibilities in relation to this loan may help you in future funding and enrollment.

All students withdrawing must:

Contact the Cashier's Office in Deputy 202, 755-2046, to determine if you are to receive a refund or if a financial aid repayment is necessary.

Finally, you must withdraw from all your classes prior to the last day to withdraw as published in the semester class schedule by:

Web Registration: Go to the BSU homepage (www.bemidjistate.edu) under myBSU, then MNSCU E-Services.

Questions? Need assistance? Check out the last few pages of the class schedule for further information or stop by the Records and Registration Office, Deputy 101, or the Office of Student Development and Enrollment, Deputy 313.

## Grades & Grading

Grade Point Average (GPA)

1. The grade point average is computed by dividing the number of quality points earned by the number of semester credits attempted for which grades of A, B, C, D, or F were given. Quality points for each course are calculated by multiplying the number of semester credits by the points awarded for the grade achieved in that course. Grade points are shown under "Grade Types" below. For example, a student who received an A, two B's, and one C, each grade from a three semester credit course, would have the following GPA:

A x 3 semester credits = 4 x 3 = 12 quality points
B x 3 semester credits = 3 x 3 = 9 quality points
B x 3 semester credits = 3 x 3 = 9 quality points
C x 3 semester credits = 2 x 3 = 6 quality points

12 semester credits - 36 quality points
36 quality points divided by 12 semester credits = 3.00 GPA

2. Only the most recent grade of a repeated course will be used in computing the GPA. The first grade will be removed from the computation of the GPA once a Repeat Form is submitted to the Records and Registration Office. (See "Repeating Courses".)

3. Only credits taken at Bemidji State University or on the Common Market Program will be used in computing the GPA. (See "Common Market Program" under Academic Degrees and Programs.)

4. All BSU courses taken in the major and minor areas count in the computation of those GPAs and, therefore, must be taken for a letter grade.
Grade Types

The work of a student is recorded as follows:

A - excellent (4 quality points)
B - very good (3 quality points)
C - average (2 quality points)
D - passing (1 quality point)
F - failure (0 quality points)
I - incomplete*
IP - in-progress*
Z - no grade reported by the instructor
NC - no credit*
P - pass*
S - satisfactory*
U - unsatisfactory*
AU - audit *
W - withdraw (drop)*
EX -exchange*

*Additional information in "Grade Explanations" below.

The records of all courses completed prior to spring quarter 1975 are microfilmed and stored in the microfilm file of the Minnesota Historical Society, Historical Building, St. Paul, Minnesota. Subsequent grade records are stored and backed up on computer disks.
Grade Explanations

I - Incomplete: To be given by prior arrangement between the student and the instructor or in the case of a verifiable emergency situation. An incomplete must be removed by the student within twenty (20) class days of the next semester, or within one (1) year, if the student does not return to the University; otherwise, the grade is a failure and is so recorded. Any exception must be petitioned and approved by the Student Program and Admission Committee (petition forms in the Records and Registration Office). After one (1) year these grades may be discounted from the grade point average only when the courses are repeated. All "I" (Incomplete) grades must be removed before a degree will be conferred.

IP - In-Progress: The student may, with the instructor's prior approval, be granted a grade of "IP" (In Progress) for an independent study project (e.g., thesis or research paper) or special course for which completion of the course within one semester may not normally be anticipated. All "IP" (In Progress) grades must be removed before a degree will be conferred.

S or U - Satisfactory or Unsatisfactory: Some courses, such as student teaching, internships, and some workshops, are offered only with the "S or U" grade designation. Letter grades are not available for these courses.

P, NC, or A - Pass, No Credit, or A Option: A student may enroll in certain courses on a Pass/No Credit (P/NC) basis by petitioning the Records and Registration Office. No letter grade is assigned unless a grade of "A" is achieved and then that grade is so recorded. Semester credits earned on a Pass/No Credit basis are not included in the computation of the student's grade point average (GPA), but the pass semester credits count toward graduation. If an "A" grade is achieved, it is included in the GPA computation. Pass/No Credit grades become a part of the student's permanent record. The option to register on a Pass/No Credit basis may be exercised until the end of the tenth class day of a semester (fourth day of class during summer term). The Pass/No Credit registrant is obligated to complete all course requirements and to take all examinations. The following restrictions apply to Pass/No Credit registration:

- Pass/No Credit courses may not be used as part of a major, a minor, an emphasis, or Liberal Education.
- Professional Education courses and courses required for teacher licensure may not be taken Pass/No Credit.
- Courses offered on a Satisfactory/Unsatisfactory basis may not be taken

Pass/No Credit.

- No more than one class per semester (regardless of semester credit) may be taken Pass/No Credit.
- No more than thirteen (13) semester credits may be accrued for graduation using the Pass/No Credit grading option.
- A student who is on academic probation may not register for any course on a Pass/No Credit basis, unless it is in excess of the twelve (12) semester credits of letter grade (A, B, C, D, or F) course work required.
- No class taken initially for a letter grade may be repeated on a Pass/No Credit basis.
- A petition to take a class on a Pass/No Credit must be filed with the Records Office by the 15th day of the semester.

AU-Audit Option: Students who desire to take a course without credit and without regard for the usual prerequisites may enroll as "audit." These students must notify the instructor that they are auditing. Students taking a course as 'audit' must pay the regular tuition and fees required of other students, but they are not permitted to take examinations. Audited courses do not earn credits and therefore cannot be counted toward graduation requirements or as part of the student's course load. Grades are recorded only as "AU" - audit. A petition to take a class as 'Audit' must be filed with the Records Office by the 15th day of the semester.

W-Withdraw: Given to students who withdraw prior to the withdrawal deadline published in the Academic Calendar from a class for which they are financially responsible. No one may withdraw from class after that time except in special hardship cases. Please see the Academic Calendar for accurate withdrawal dates.

EX-Exchange: Eligible students have the option of taking courses at other state universities while maintaining their residency at Bemidji State University. These courses are designated with an EX grade and are considered “residence credits” for all other university policies (GPA computation, residency requirements, etc.).

## Graduation

**Requirements for All Baccalaureate Degrees (B.A., B.F.A., B.S., B.A.S.)**

1. Scholarship

- General Scholarship - minimum cumulative 2.00 ("C") GPA. Some programs require higher GPAs, such as those in Professional Education, Nursing, Social Work, and Mass Communication. Please refer to the appropriate catalog sections.
- Major Field - minimum 2.25 GPA - the major field includes all courses taken at Bemidji State University in the area of study. Some majors require higher GPAs, such as those in Professional Education. Please refer to the appropriate catalog sections.
- Minor Field - minimum 2.00 GPA.

2. Graduation plan forms should be submitted for approval two (2) semesters before graduation. Forms are available online at the BSU Web site, www.bemidjistate.edu (click on Records).

3. All financial obligations, incomplete grades, or other course problems must be cleared by the end of the last semester before graduation.

4. Departmental approval for a major or minor in the department.

5. Successful completion of one-hundred twenty (120) semester credits minimum for all B.A., B.F.A., B.S., and B.A.S degrees, (select majors up to 136 minimum credits). Note: No credits from courses numbered 0800-0899 may be used to fulfill graduation requirements. A maximum of four (4) credits from courses numbered 0900-0999 may be used to fulfill graduation requirements.

6. A minimum of forty (40) semester credits at the 3000 level or above must be completed through four-year degree-granting institutions.

7. Thirty (30) residence semester credits must be completed through Bemidji State University.

8. Transfer Students: At least one-third of the credits to be included in the major, minor and/or certificate must be successfully completed at Bemidji State University. Some minors, and/or certificates require more than one-third of the credits be completed at Bemidji State University.

9. Students are encouraged to discuss with their advisor the option of a second major, minor, or field of emphasis that might strengthen or complement their major.

10. Minors: A minor must include at least one unique course from the major and/or certificate.

11. Certificates: A certificate much include at least one unique course from the major and/or minor.

12. Please note that for any degree program, completion of a major and a minor in the same discipline is not permitted.

13. Liberal Education requirements or completion of the Minnesota Transfer Curriculum.

14. Contact the major department for specific information on screening criteria for entry into the major program.

**Requirements for the Associate in Arts (A.A.) Degree**

1. Sixty (60) semester credits minimum, meeting all Liberal Education requirements plus electives. All transfer students must complete a minimum of one semester at Bemidji State University. In addition, twenty (20) semester credits must be completed at Bemidji State University.

2. Minimum 2.00 ("C") GPA.

**Multiple Majors**

Students are encouraged to pursue more than one major to enhance their educational background. A student completing two or more majors with different degree designations will be awarded the degree associated with the primary major. However, if one of the majors is in a field of professional teaching, the B.S. degree shall be awarded. Graduation planning forms must be filed in the Records and Registration Office for all majors.

**Multiple Degrees**

A student completing two or more majors with different degree designations (B.A., B.F.A., B.S., or B.A.S. only) who wishes both degrees will be required to complete at least thirty (30) additional semester credits beyond the first degree.

An A.A. degree will not be awarded simultaneously with or subsequent to a four-year degree.

A student who holds a baccalaureate degree from another regionally accredited

institution may earn an additional baccalaureate degree from Bemidji State University by completing all of the course requirements for that degree with at least thirty (30) additional semester credits in residence at Bemidji State University.

**Policy of Catalog Use**

Students working toward an associate or baccalaureate degree may elect to fulfill degree requirements as outlined in any one catalog in effect during the dates of registration for resident credit at Bemidji State University. Students who have not attended the University for more than five (5) consecutive years prior to re-enrolling must meet all degree requirements as outlined in the catalog in effect at the date of their re-enrollment or any subsequent catalog in effect during their dates of registration for University credit. Students admitted to the University directly from a Minnesota community college may, provided not more than two (2) consecutive semesters have elapsed since their attendance at the community college, elect to fulfill degree requirements as outlined in any BSU catalog in effect during their dates of attendance at the Minnesota community college, or any subsequent catalog in effect during their dates of registration at Bemidji State University. This provision does not apply to State Teaching Licensure requirements.

Students should decide as early as possible which catalog is to be used in meeting degree requirements, and follow the curriculum outlined therein.

## Graduation Honors & Dean's List

## Deans' List

Beginning fall, 2014 the Dean's List criteria has changed.

Students admitted in fall, 2014 the Dean's list minimum GPA will be 3.5. For students admitted prior to fall, 2014, the GPA criteria will be 3.25. Beginning fall, 2020, the 3.5 GPA minimum will apply for all students. The Dean's List is published each semester and recognizes students who during that semester have earned a minimum GPA of 3.25 or 3.5 depending upon admittance date for twelve (12) or more semester credits of letter-graded (A, B, C, D, F) course work (does not include pass/no credit course work). Questions about the dean's list may be directed to 218-755-2015.

The University Communication's office (Telephone 218-755-2041) typically notifies the Deans' list honoree's home town newspaper within six weeks after the end of a semester.

## Graduation Honors

Summa cum laude: at least 3.90 GPA.

Magna cum laude: at least 3.70, but less than 3.90 GPA.

Cum laude: at least 3.50, but less than 3.70 GPA.

COMPUTATION OF GRADUATION HONORS
For instructions in calculating grade point average, see Grades and Grading later in this section.

1. **Students** must complete a minimum of fifty (50) semester credits in residence of letter-graded ( A, B, C, D, F) course work.
   **Transfer students:** 1) For transfer students with fifty (50) credits or more in residence, only the GPA earned at Bemidji State University is used in determining honors. 2) Transfer students who have earned a total of thirty (30) to forty-nine (49) credits in residence at Bemidji State University of letter-graded (A, B, C, D, F) course work may be considered for honors status if their cumulative grade point average (GPA) from each institution of higher education is at least 3.50. The lowest GPA earned determines the final level of honors.
2. Honors at the time of the commencement ceremony are computed on the cumulative grades at the end of the semester prior to commencement exercises. However, actual degree honors will be based on the cumulative GPA at the time the degree is awarded.
3. Incompletes are computed as "F" grades.

## Honors Program

## Understanding Degrees and Programs

**Academic Degrees and Programs**

Records and Registration Office
101 Deputy Hall
218-755-2020

Bemidji State University offers programs and awards degrees under the authority of the Minnesota State Colleges and Universities Board. For bachelor's degrees, at least forty (40) of the required credits for the degree shall be upper division credits; thirty (30) credits shall be taught by the faculty recommending the degree. Transfer students: At least one-third of the credits to be included in the major must be successfully completed at Bemidji State University.
Bachelor of Arts (B.A.)

The Bachelor of Arts degree (120 credits minimum) combines liberal education with sufficient specialization for most occupations in the arts, sciences, industry, and government service. It is an appropriate degree for students planning graduate study in the arts, humanities, and the behavioral and social sciences, and for those planning to enter certain professional schools, such as law or theology. Students planning to major in the sciences should discuss their professional career goals with a faculty advisor before deciding whether to seek a B.A. or a B.S. degree in their major subject.
Bachelor of Fine Arts (B.F.A.)

The Bachelor of Fine Arts degree (120 semester credits minimum) combines liberal education with specialization in the arts. It is an appropriate degree for students planning careers or graduate study in their fields.
Bachelor of Science (B.S.)

The Bachelor of Science degree (120 credit minimum) provides intensive concentration in a specific area and a foundation in the liberal arts. It is an appropriate degree for students pursuing entry-level positions in a variety of occupations and professions. Completion of this degree with a major in one of the numerous teacher education programs and passing scores on required professional tests makes one eligible to apply for teacher licensure in Minnesota. Such a degree holder may have a non-teaching minor recorded on the permanent transcript, but it would not appear on the teaching license. This degree appropriately prepares students whose future goals include graduate studies. Students planning to major in the sciences should discuss their professional career goals with a faculty advisor before deciding whether to seek a B.A. or a B.S. degree in their major subject.
Bachelor of Applied Science (B.A.S)

The Bachelor of Applied Science degree (120 credits minimum) provides thorough study in a technical area and a foundation in the liberal arts. It is an appropriate degree for students pursuing employment in a technical field in industry. This degree is especially ideal for students who transfer from a Technical College.
Associate in Arts (A.A.)

Bemidji State University offers a curriculum (60 credits minimum) that leads to a two-year Associate in Arts degree in Liberal Education. With proper advising, this program may be used as the basis for continuing on in a four-year bachelor's degree program.

**Teacher Licensure Programs**

Licensure programs are offered for students currently enrolled in or who have completed a Bachelor of Science degree with teacher licensure (see "Major Fields" for list).

Consult with a faculty advisor to plan a program that will lead to the completion of a licensure program and to follow the University's recommendation for endorsement.

Persons who have a valid teaching license may update or add on to their licensure fields in many of the special areas noted in the Professional Education section of this catalog or the BSU Graduate Catalog. Upon completion of a program and the required professional tests, a license application, available through the Minnesota Department of Education website (http://education.state.mn.us/mde/index.html), should be completed. For further information about post-baccalaureate programs in Professional Education, see the Graduate Catalog or contact the Office of Graduate Studies.

**Honors Program**

357 Hagg-Sauer Hall
218-755-3984

The Honors Program is challenging and rigorous. It is intended for outstanding students who wish to develop flexible, independent, and creative minds. Entrance requirements are flexible, but most students in the Honors Program qualify by graduating in the top 10 percent of their high school class or by scoring above a preset minimum on standardized tests such as the ACT or SAT. Interested students should contact the director of the Honors Program. See also entry in Section VII.

**Internship Program**

Career Services, 207 Sattgast
218-755-2038

The Internship Program provides students with the opportunity to work under a carefully planned and approved program with a participating firm or organization for one or more semesters of an academic year or during the summer. This program affords the student an opportunity to perform an internship in the world of work while a student. It also affords the agencies involved an opportunity to cooperate with the University in preparing students for employment after graduation.

Most internships are arranged during the student's junior or senior year directly through their departments. Explore the "Students" link on the Career Services Web site (at www.bemidjistate.edu/students/services/career/) for postings of internship openings, an Internship Database, and schedule of internship workshops and fairs. Also, for more information, contact Career Services.

**Servicemember's Opportunity College**

Extended Learning, 105 Deputy Hall
218-755-2068

Bemidji State University has been identified by the American Association of Community and Junior Colleges as a Servicemember's Opportunity College (SOC) providing educational assistance to active duty servicemembers. Contact the SOC representative, Extended Learning, Deputy Hall, Bemidji State University, 1500 Birchmont Drive, Bemidji, MN 56601-2699.

**Common Market Program**

Records and Registration Office, 101 Deputy Hall
218-755-2020

This is a cooperative, system-wide program in which students may attend other Minnesota State universities, one institution for one semester or two institutions for a total of two semesters. The courses and semester credits are transferred as residence semester credits and are computed in the grade point average. Contact the Records and Registration Office for further information.

**Graduate Studies**

111 Deputy Hall
218-755-2027

Bemidji State University began offering graduate course work in the summer of 1953. Accreditation was received from the North Central Association of Colleges and Secondary Schools for the Master of Science degree in Education in 1957. The University received approval to offer graduate course work leading to the Master of Arts degree in 1969. The graduate program offers a variety of graduate master's degree programs and specialized licensures. Graduate-level course work is offered for students pursuing a degree, as well as for students who wish to continue professional preparation or broaden their educational experiences without reference to the requirements for a degree.

The goal of graduate studies is to enable the student to achieve an advanced state of knowledge and professionalism encompassing the philosophy, history, theory, and methodology of a discipline or field of study. Students who attain this goal will have developed the skills necessary to conduct research, to evaluate and apply the research of others, and to present, orally and in writing, the results of their studies to other scholars and to the community at large.

Applicants with an undergraduate cumulative grade point average of at least 2.75 (4.0 = A) (check with specific department as some may have a different requirement) or a cumulative grade point average of at least 3.00 ("B") during the final 60 semester credits will be considered for admission. All applicants for a degree program must also submit one (1) official transcript from each previously attended regionally accredited college or university and a completed application for admission accompanied by a non-refundable application fee. Biology and Environmental Studies applicants in addition are required to provide results from the Graduate Record Exam (GRE) general test. International applicants whose first language is other than English must also submit the TOEFL.

Graduate Special Student Status: Students seeking to take graduate courses without a planned degree objective may apply for special student admission. Admission as a Graduate Special student requires that the applicant must have graduated with a baccalaureate degree from a regionally accredited college or university. Applicants who are admitted as Graduate Special students may later apply for admission to a graduate degree program. A non-refundable application fee is required.

## Understanding University Credit

**Semester Credits**

The unit of credit is the semester credit, representing the satisfactory completion of a subject pursued for a period of not less than fifty (50) classroom minutes per week for the semester, or two periods (100 minutes) of laboratory work per week for the semester, or the equivalent.

Students who transfer quarter credits are awarded .67 semester credits for every quarter credit accepted.

**Class Level**

A student must satisfactorily complete the following number of semester credits in order to attain the corresponding class level:

1-29 Freshman

30-59 Sophomore

60-89 Junior

90 & above Senior

**Maximum Credit Load**

The normal semester load for on- or off-campus students is sixteen (16) semester credits. Students who have less than an overall GPA of 3.00 may not enroll for more than eighteen (18) semester credits without the approval of an advisor. Approval should be obtained prior to the beginning of classes. A student must petition the Student Programs and Admissions (SPA) committee for permission to register for more than 22 credits in a semester.

The normal summer term load is from eight (8) to sixteen (16) semester credits. The minimum load for full-time student status in the summer is twelve (12) credits.

**Residence Credit**

Residence credits are semester credits earned on the Bemidji State University campus, through External Studies, or at off-campus centers that meet University extension credit requirements.

Students earning a B.A., B.F.A., B.S., or B.A.S. degree shall earn a minimum of thirty (30) semester credits of residence credit during the junior and senior years. A minimum of forty (40) semester credits at the 3000 level or above from a senior institution is required. Students earning a two-year degree shall earn at least twenty (20) semester credits of residence credit.

**0800-0999 Credits**

No credits from courses numbered 0800-0899 may be used to fulfill graduation requirements. A maximum of four (4) credits from courses numbered 0900-0999 may be used to fulfill graduation requirements. All 0800-0899 and 0900-0999 credits appear on student transcripts, and are included in the cumulative GPA.

**Extended Learning**

Credits earned through Extended Learning are considered Bemidji State University residence credits.

**Correspondence Credits**

Correspondence credits are semester credits earned in courses taken by correspondence through an accredited institution of higher education.

**Non-Collegiate and Experiential Learning**

Extended Learning, 105 Deputy Hall
218-755-2068

The University's program for the evaluation of non-college and experiential learning which occurred prior to or outside a formal academic institution enables students to enrich or accelerate their program of study. Such learning may be the result of a variety of life experiences, such as continuing education, work experience, or individual study. Experiential university credit is not awarded on the basis of experience alone, but for the achievement of an advanced level of knowledge and/or skill.

The methods of determining either recognition or university credit are predicated on prior learning that is considered to be at a university level. Each department determines the criteria, if any, which if satisfied, will result in the awarding of university credit. The departments have the prerogative of determining which courses, if any, may be evaluated for non-college or experiential learning.

**Standardized Proficiency Examinations**

Office of Admissions, 102 Deputy Hall
218-755-2040

Standardized proficiency examinations are recognized by many of the departments and include the College Board Advanced Placement Examinations (AP); the College-Level Examination Program (CLEP) subject examinations; the Defense Activity for Non-Traditional Education Support (DANTES) subject standardized tests; the International Baccalaureate (IB) higher level selected subsidiary level results and the diploma; the College Board Scholastic Aptitude Achievement Test; and various military service school transcripts (DD-214 Forms). No course may be repeated or grade raised by such an examination.

**Credit by Special Examination**

Requests to take a special examination must be made to the course instructor. The opportunity to take a special exam is limited to students enrolled for residence credits. No grade may be raised or repeated by such an examination. The "Request to Take Special Exam" form is available from the Records and Registration Office (101 Deputy Hall, 218-755-2020).

**Transfer of Credits to Other Institutions**

Credits earned at Bemidji State University are accepted by other colleges and universities, if they are applicable to the student's undergraduate or graduate program.

As the University cannot certify credit earned at other institutions, copies of transcripts other than those from Bemidji State University will not be issued.

(related link > Transfer of Credits in Admissions)

## Understanding University Courses

**Common Course Outlines**

Common course outlines are available in the course catalog under each course description. A common course outline is intended to provide additional course information that may be used to evaluate a course for transfer.

**Course Levels by Number**

Courses numbered 0800 through 0899 are considered college preparation courses. These will appear on transcripts and be included in the cumulative grade point average (GPA) for the purpose of some academic progress reports, but will not be included in the total credits or the cumulative GPA required for graduation.

Courses numbered 0900 through 0999 are considered developmental courses. A maximum of four (4) semester credits will be included in the total semester credits for graduation. Courses taken in excess of the first four (4) semester credits will be included in the cumulative GPA for academic progress and suspension but will not be included in the total semester credits or GPA required for graduation.

Courses numbered 1000 to 1999 are freshmen-level courses and are considered "lower division" courses.

Courses numbered 2000 to 2999 are sophomore-level courses and are considered "lower division" courses.

Courses numbered 3000 to 3999 are junior-level courses and are considered "upper division" courses. Some of these courses also carry numbers in the 5000 series, which indicates they are open to graduate students.

Courses numbered 4000 to 4999 are senior-level courses and are considered "upper division" courses. Some of these courses also carry numbers in the 5000 series, which indicates they are open to graduate students.

Courses numbered 5000 to 5999 are double-numbered courses (with courses in the 3000-4999 series) and are open to graduate students (see Graduate Catalog).

Courses numbered 6000 to 6999 are exclusively for graduate students (see Graduate Catalog).

Freshmen registering for courses numbered above 2999 should consult with their advisor or the instructor of the course.

**All-University Courses**

The course numbers listed below, not always included in the semester class schedule, may be registered for by consent of the advisor, instructor, or department chair, or may be assigned by the department when warranted. Individual registration requires previous arrangement by the student and the completion of any required form or planning outline as well as any prerequisites.

1910, 2910, 3910, 4910 DIRECTED INDEPENDENT STUDY
Arranged individual study.

1920, 2920, 3920, 4920 DIRECTED GROUP STUDY
Arranged group study.

1930, 2930, 3930, 4930 EXPERIMENTAL COURSE
A course proposed for inclusion in the University curriculum. May not be offered more than two times as an experimental course.

1940, 2940, 3940, 4940 IN-SERVICE COURSE
A course for practitioners seeking additional training or expertise in their current vocation or profession. The in-service format typically includes an educational experience in which a University faculty member and a group of students concentrate on working toward the resolution of a specific problem.

1950, 2950, 3950, 4950 WORKSHOP, INSTITUTE, TOUR
An intense, credit-granting academic experience of short duration (usually from two days to two weeks) that is not listed in the current University curriculum. Provides for the practical application of theoretical learning within a group setting, and may include the development of methods and skills and the discussion of ideas and principles.

1960, 2960, 3960, 4960 SPECIAL PURPOSE INSTRUCTION
A course intended for specific groups or organizations outside the University community.

1970, 2970, 3970, 4970 INTERNSHIP
Graded Satisfactory/Unsatisfactory only.

Student internships may be either full-time or part-time in a public or private agency appropriate to the degree objective. Internships consist of closely supervised periods of service that are arranged in advance of the course registration. Students should consult their advisor concerning prerequisites.

1980, 2980, 3980, 4980 RESEARCH
Research carried out by the student that is based on appropriate methodology and scholarship.

1990, 2990, 3990, 4990 THESIS
A thesis written by the student that reports extensive original research carried out by the student and demonstrates appropriate methodology and scholarship.

## Administration and Faculty

# Accounting

Accounting is an information system that represents the economic resources and responsibilities of business or non-business enterprises. Monitored over time, it is used as a decision-making tool for the allocation of resources and evaluation of responsibilities.

Accounting information impacts major economic decisions that have national and even global impact. The Accounting program teaches analytical, theoretical, communication, and leadership skills necessary for effective accounting and for advancement in public, private, government, and fraud examination careers.

Upon graduation, Accounting majors may write the Uniform Certified Public Accounting Examination, the Certified Internal Auditor Examination, the Certified Management Accountant Examination, and/or the Certified Fraud Examination. Certificates are issued upon attainment of a satisfactory score and completion of appropriate credits and the appropriate work experience.

**Programs**

- Accounting, B.S. *major*
- Accounting *minor*
- Fraud Examination *minor*

**Career Directions**

Financial Accounting
Fraud Examination
Government Accounting
Management Accounting
Public Accounting (Certified Public Accountant)

**Preparation**

*Recommended High School Courses*

- Mathematics
- English

## Accounting, B.S. *major*

Required Credits: 71
Required GPA: 2.25

**I REQUIRED COURSES**

COMPLETE THE FOLLOWING COURSES:

- ACCT 1101 Principles of Accounting I (3 credits)
- ACCT 1102 Principles of Accounting II (3 credits)
- ACCT 3110 Accounting Systems (3 credits)
- ACCT 3201 Intermediate Accounting I (3 credits)
- ACCT 3202 Intermediate Accounting II (3 credits)
- ACCT 3300 Government Accounting (3 credits)
- ACCT 3301 Cost Accounting I (3 credits)
- ACCT 3302 Cost Accounting II (3 credits)
- ACCT 3404 Income Taxes I (3 credits)
- ACCT 4110 Advanced Accounting (3 credits)
- ACCT 4210 Auditing I (3 credits)
- ACCT 4600 Senior Seminar: Accounting (1 credit)
- BUAD 2231 Business Statistics I (3 credits)
- BUAD 2280 Computer Business Applications (3 credits)
- BUAD 3321 Business Law I (3 credits)
- BUAD 3322 Business Law II (3 credits)
- BUAD 3351 Management (3 credits)
- BUAD 3361 Marketing (3 credits)
- BUAD 3771 Financial Management (3 credits)
- BUAD 4559 Strategic Management (3 credits)
- ECON 2000 Markets and Resource Allocation (3 credits)
- ECON 2100 Macroeconomics and the Business Cycle (3 credits)

SELECT 1 COURSE:
A MATH course from Liberal Education Goal Area 4 at a higher level than College Algebra may be substituted for this requirement

- MATH 1170 College Algebra (4 credits)

**II REQUIRED ELECTIVES**

SELECT 3 CREDITS OF ELECTIVES IN ACCT OR BUAD WITH CONSENT OF ADVISOR

**SUGGESTED SEMESTER SCHEDULE FOR ACCOUNTING MAJOR, B.S.**

The following is a list of courses arranged by year. This schedule is intended to help students plan their courses in an orderly fashion; however, these are only suggestions and the program is flexible. Students should consult with their assigned advisors prior to enrolling for courses.

Freshman

- MATH 1170 College Algebra (4 credits)
- Liberal Education requirements

Sophomore

- ACCT 1101 Principles of Accounting I (3 credits)
- ACCT 1102 Principles of Accounting II (3 credits)
  (the above two courses may be taken as a freshman)
- BUAD 2231 Business Statistics I (3 credits)
- BUAD 2280 Computer Business Applications (3 credits)
- ECON 2000 Markets and Resource Allocation (3 credits)
- ECON 2100 Macroeconomics and the Business Cycle (3 credits)
- Complete Liberal Education requirements

Junior

- ACCT 3110 Accounting Systems (3 credits)
- ACCT 3201 Intermediate Accounting I (3 credits)

- ACCT 3202 Intermediate Accounting II (3 credits)
- ACCT 3300 Government Accounting (3 credits)
- ACCT 3301 Cost Accounting I (3 credits)
- ACCT 3302 Cost Accounting II (3 credits)
- BUAD 3321 Business Law I (3 credits)
- BUAD 3322 Business Law II (3 credits)
- BUAD 3351 Management (3 credits)
- BUAD 3361 Marketing (3 credits)

Senior

- ACCT 3404 Income Taxes I (3 credits)
- ACCT 4110 Advanced Accounting (3 credits)
- ACCT 4210 Auditing I (3 credits)
- ACCT 4600 Senior Seminar: Accounting (1 credit)
- BUAD 3771 Financial Management (3 credits)
- BUAD 4559 Strategic Management (3 credits)
- Elective in Accounting

## Accounting *minor*

Required Credits: 21
Required GPA: 2.00

**I REQUIRED COURSES**

COMPLETE THE FOLLOWING COURSES:

- ACCT 1101 Principles of Accounting I (3 credits)
- ACCT 1102 Principles of Accounting II (3 credits)
- ACCT 3201 Intermediate Accounting I (3 credits)
- BUAD 2280 Computer Business Applications (3 credits)

**II REQUIRED ELECTIVES**

SELECT 3 COURSES FROM THE FOLLOWING:

- ACCT 3117 Managerial Analysis (3 credits)
- ACCT 3140 Fraud Examination (3 credits)
- ACCT 3202 Intermediate Accounting II (3 credits)
- ACCT 3301 Cost Accounting I (3 credits)
- ACCT 3302 Cost Accounting II (3 credits)
- ACCT 3404 Income Taxes I (3 credits)
- ACCT 3405 Income Taxes II (3 credits)
- ACCT 4110 Advanced Accounting (3 credits)

**BUSINESS ADMINISTRATION MAJORS MINORING IN ACCOUNTING**

**********

Business Administration majors minoring in Accounting must select 9 semester credits in the minor which are not repeated in their major.

## Fraud Examination *minor*

Required Credits: 22
Required GPA: 2.00

**I REQUIRED COURSES**

COMPLETE THE FOLLOWING COURSES:

- ACCT 1101 Principles of Accounting I (3 credits)
- ACCT 1102 Principles of Accounting II (3 credits)
- ACCT 3140 Fraud Examination (3 credits)
- BUAD 3520 Business Ethics (3 credits)
- CRJS 1120 Criminal Justice and Society (4 credits)

**II REQUIRED ELECTIVES**

SELECT ONE COURSE FROM EACH OF THE FOLLOWING GROUPS:

GROUP A

- ACCT 3117 Managerial Analysis (3 credits)
- ACCT 3118 Financial Statement Analysis (3 credits)
- ACCT 4210 Auditing I (3 credits)

GROUP B

- BUAD 2220 Legal Environment (3 credits)
- BUAD 3321 Business Law I (3 credits)
- CRJS 3358 Criminal Law (4 credits)

**ACCOUNTING, BUSINESS ADMINISTRATION, CRIMINAL JUSTICE**

**********

Accounting, Business Administration, and Criminal Justice majors who are minoring in Fraud Examination must select 9 semester credits in the minor that are not repeated in the major.

## Accounting Courses

**ACCT 1100 Financial Literacy (3 credits)**
An introduction to the use and interpretation of financial information needed to be a functioning member of society. Topics include business and non-business financial statements, compound interest related to loans and investment opportunities, banking transactions, personal financial statements, and the basic impact of Federal taxes on personal financial decisions. Prerequisite: Completion of a Goal Area 4 course. Liberal Education Goal Areas 5 & 9. NOTE: On-campus/Online course rotation information can be found at: https://www.bemidjistate.edu/academics/departments/accounting/student-resources/course-rotation/

**ACCT 1101 Principles of Accounting I (3 credits)**
Modern accounting concepts including financial statement preparation, internal controls, short and long term assets, and introduction to corporations.

**ACCT 1102 Principles of Accounting II (3 credits)**
Modern accounting concepts including the cash flow statement and consolidated statements. An introduction to management accounting topics, including cost-volume-profit relationships, costing methods, and variance analysis. Prerequisite: ACCT 1101.

**ACCT 3110 Accounting Systems (3 credits)**
The theory and methodology of analyzing, designing, and implementing accounting information systems. Emphasizes integrated general ledger application software and the managerial aspects of systems design. Prerequisites: ACCT 1102 and BUAD 2280.

**ACCT 3117 Managerial Analysis (3 credits)**
Explanation of how accounting data can be interpreted and used by management in planning and controlling business activities. Course is not open to accounting majors. Course is not acceptable as a business administration elective if Cost Accounting I or II is completed. Prerequisite: ACCT 1102.

**ACCT 3118 Financial Statement Analysis (3 credits)**
Comparisons of items on the financial statements of modern business concerns to determine their strengths and weaknesses. Methods include vertical and horizontal analysis, ratio analysis, and the interpretation of financial statement disclosures. Not recommended for accounting majors. Prerequisite: ACCT 1102.

**ACCT 3140 Fraud Examination (3 credits)**
Principles and methodology of fraud prevention, detection, and deterrence. Topics include the nature of fraud and the fraud triangle, the symptoms of fraud, and different fraud schemes, including financial statement fraud, skimming, disbursement schemes, billing schemes, misappropriations, and corruption. Prerequisites: ACCT 1101 and ACCT 1102.

**ACCT 3201 Intermediate Accounting I (3 credits)**
Emphasizes the accounting theory upon which financial accounting is based by studying the fundamental interrelationships within the financial statements. Also includes detailed study of current and long-term assets. Prerequisites: ACCT 1101, ACCT 1102, and MATH 1170.

**ACCT 3202 Intermediate Accounting II (3 credits)**
A detailed study of the statement of cash flows plus several complex financial accounting topics. Prerequisite: ACCT 3201 and BUAD 2280.

**ACCT 3300 Government Accounting (3 credits)**
Introduction to state and local government accounting, and accounting for colleges, hospitals, and other not-for-profit organizations. Accounting follows the pronouncements of the Government Accounting Standards Board and the Financial Accounting Standards Board. Prerequisite: ACCT 1102.

**ACCT 3301 Cost Accounting I (3 credits)**
Fundamentals of cost accounting information systems, including cost-volume-profit relationships, costing in the service and manufacturing sectors, cost behavior, and budget variance analysis. Prerequisites: ACCT 1102, ENGL 1151, and ENGL 2152 or ENGL 3150.

**ACCT 3302 Cost Accounting II (3 credits)**
Refinements of cost accounting information systems, including management control systems, cost allocation refinements, capital budgeting, and performance measurement. Prerequisite: ACCT 3301.

**ACCT 3404 Income Taxes I (3 credits)**
The federal income tax laws and regulations concerning taxable income and computation of tax as they affect individuals. Prerequisites: ACCT 1102, ENGL 1151, and ENGL 2152 or ENGL 3150.

**ACCT 3405 Income Taxes II (3 credits)**
The federal income tax laws and regulations concerning taxable income and computation of tax as they affect corporations, estates, and trusts. Prerequisite: ACCT 3404.

**ACCT 4110 Advanced Accounting (3 credits)**
Accounting for partnerships, combined corporate entities, consolidated statements, foreign currency transactions, interim financial statements, segment reporting, fiduciary accounting, and SEC reporting. Prerequisite: ACCT 3202.

**ACCT 4210 Auditing I (3 credits)**
Duties and responsibilities of an auditor, kinds of audits, and audit programs. Preparation of audit working papers and compilation of audit data. Prerequisites: ACCT 3202 and ACCT 3302.

**ACCT 4217 Financial Accounting and Reporting (FAR) (3 credits)**
Concepts and standards for financial statements, typical items in financial statements, specific types of transactions and events, accounting and reporting for governmental agencies, and accounting and reporting for non-governmental and not-for-profit organizations. Course intended primarily for Certified Public Accountant candidates. Prerequisite: ACCT 3202. Might not be offered every year.

**ACCT 4307 Seminar in Management Accounting (3 credits)**
Integrates economics and business finance, organization and behavior, including ethical considerations, public reporting standards, auditing and taxes, periodic reporting for internal and external purposes, and decision analysis, including modeling and information systems. Designed for students interested in careers in management accounting and the Certificate in Management Accounting (C.M.A.). Prerequisite: Senior status and consent of instructor. Might not be offered every year.

**ACCT 4310 Auditing & Attestation (AUD) (3 credits)**
Planning the auditors engagement with clients, evaluating internal controls, obtaining and documenting information, reviewing engagements, evaluating information, and preparing communications. Course intended primarily for Certified Public Accountant candidates. Prerequisite: ACCT 4210 or consent of instructor.

**ACCT 4510 Business Environment and Concepts (BEC) (3 credits)**
Knowledge of business structures, economic concepts, financial management, information technology, and planning and measurement. Course intended primarily for Certified Public Accountant candidates. Prerequisites: ACCT 3110, ACCT 3202, ACCT 3300, ACCT 3302.

**ACCT 4600 Senior Seminar: Accounting (1 credit)**
Course consists of recommended common professional components (major core courses required for both Accounting and Business Administration majors), and preparation for and completion of assessment exams for all Accounting majors. Assessment exams measure student knowledge of required basic core courses in accounting, economics, business law, statistics, computer business applications, management, marketing, finance, and strategic management. Test results allow the Accounting department to compare departmental with national student outcomes and implement subsequent curriculum improvements. This course is required of all Accounting, B.S. majors. Prerequisites: Completion of the required basic core. Course must be taken during the students last term of enrollment and graduation must follow at the end of that term.

## All-University Courses

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1990, 2990, 3990, 4990 THESIS

# Anthropology

Please note that even though a program is no longer offered in this area, there are Anthropology courses that may be taken for credit as part of a program in a related area.

## Anthropology Courses

**ANTH 1100 Becoming Human - Tracing our Origins (3 credits)**
Humans as biological and cultural organisms. The physical origin of humans and the primates; the interplay of biological and cultural factors in our evolution; physical variations among modern human populations. Liberal Education Goal Area 5.

**ANTH 1110 Cultural Anthropology (3 credits)**
Comparative study of a variety of modern human groups serves to illustrate the methodology of Cultural Anthropology. Analyses of technologies, family forms, social organizations, religions, and cultural change. Liberal Education Goal Area 8.

**ANTH 2100 Native North Americans (3 credits)**
Examination of the variety of native North American cultures (north of Mexico). Survey of linguistic and archaeological background; emphasis on social and ecological adjustments. Liberal Education Goal Areas 5 & 7.

**ANTH 3117 Religions of Preliterate Societies (3 credits)**
Functions of religion in preliterate societies. A comparative analysis of the role of religion on a scale of increasing societal complexity. Might not be offered every year.

**ANTH 3119 Ojibwe Culture (3 credits)**
Surveys aspects of and observances and changes in Ojibwe culture from the contact period to the present. Prerequisite: ANTH 1110 or ANTH 2100. Might not be offered every year.

**ANTH 3200 Methods in Archaeology (3 credits)**
Archaeological methodology with an emphasis on methods and techniques of excavation. Laboratory sessions will demonstrate methods of artifact analysis. Might not be offered every year.

**ANTH 3208 North American Prehistory (3 credits)**
Origins and development of the prehistory cultural traditions of North America. Culture areas will be studied from an ecological perspective. Might not be offered every year.

### All-University Courses

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# Applied Public Policy

Public policies - such as criminal and civil laws, social service programs, tax codes, environmental laws, planning and land use regulations, among others - affect our lives daily. Such policies are generated by interaction between governments and individuals.

The Applied Public Policy minor offers students the opportunity to acquire a more sophisticated understanding of the public policy process and policy analysis along with a basic set of skills needed to communicate with and perhaps influence decision makers. It is intended to complement majors in related programs such as business, geography, political science, economics, urban and regional planning, environmental studies, and others. Students who complete the Applied Public Policy minor will have the tools needed to be more active leaders in their chosen professions.

**Programs**

- Applied Public Policy *minor*

**Career Directions**

Business
Criminal Justice
Environmental Policy
Health Care
Land Use Planning
Social Work
Also: Graduate Study

**Preparation**

*Recommended High School Courses*

English
Social Studies
Math
Speech
History
Computers
Languages

*Recommended Activities*

Reading Newspapers
Attention to News Events

## Applied Public Policy *minor*

Required Credits: 32
Required GPA: 2.00

**I REQUIRED CORE COURSES**

COMPLETE THE FOLLOWING COURSES:

- ECON 2000 Markets and Resource Allocation (3 credits)
- ECON 3010 Public Economics (3 credits)
- ECON 3230 Benefit/Cost Analysis (3 credits)
- GEOG 2400 Introduction to Planning (3 credits)
- POL 1200 Introduction to American Politics (3 credits)
- POL 3200 Minnesota Politics (3 credits)
- POL 3210 Public Administration (3 credits)

**II REQUIRED OPTION**

SELECT 12 SEMESTER CREDITS FROM ONE OF THE FOLLOWING OPTIONS:

*A.ENVR POLICY:*

- GEOG 3560 Metropolitan Land Use Planning (3 credits)
- POL 3230 Environmental Politics (3 credits)
- SOC 3050 Environmental Sociology (3 credits)
- ECON 3040 Environmental Economics (3 credits) *or* ENVR 3040 Environmental Economics (3 credits)

*B. PLANNING:*

- GEOG 2100 Introduction to Physical Geography (3 credits)
- GEOG 3570 Public Lands Planning (3 credits)
- GEOG 3560 Metropolitan Land Use Planning (3 credits)
- GEOG 3580 Regional Development Planning (3 credits)

*C. AM POL/ECON:*

- ECON 2100 Macroeconomics and the Business Cycle (3 credits)
- ECON 3070 Labor Economics (3 credits)
- ECON 3200 Economics of the Financial Sector (3 credits)
- POL 3410 Legislative and Executive Relations (3 credits)
- POL 3420 Campaigns and Elections (3 credits)

*D.INT/POL/ECON:*

- ECON 2100 Macroeconomics and the Business Cycle (3 credits)
- ECON 3400 International Trade and Finance (3 credits)
- POL 1300 Introduction to International Relations (3 credits)
- POL 3170 International Relations (3 credits)
- POL 3180 International Law and Organization (3 credits)
- POL 3190 International Political Economy (3 credits)

E. PUBLIC POLICY SERVICE LEARNING
COMPLETE THE FOLLOWING COURSE. (1 credit per semester; must be taken twice, but no more than 4 credits total)

- POL 3910 Directed Independent Study: Student Leadership (1 credit)

COMPLETE THE FOLLOWING COURSE:

- POL 3970 Internship (3 credits)

## Economics Courses

**ECON 1500 Historical Development of the Mixed Economy (3 credits)**
Examines the origins and developments of the mixed economy, identifying its key institutions and their evolution. Differences in the historical experiences of different regions/nations are explored, as is the availability of alternative economic systems. Liberal Education Goal Area 8.

**ECON 2000 Markets and Resource Allocation (3 credits)**
Develops microeconomic principles to explain and evaluate markets as mechanisms to signal buyers preferences and induce suppliers' response. Considers the origin and historical development of market economies as well as theory. Liberal Education Goal Areas 5 and 9.

**ECON 2100 Macroeconomics and the Business Cycle (3 credits)**
Develops macroeconomic concepts to explore the determination of aggregate output, employment, and the price level in modern mixed economies. The interaction between the financial sector and commodity markets and the potential of monetary and fiscal policy to guide the course of the macro economy are also explored. Prerequisite: ECON 2000 or consent of instructor. Liberal Education Goal Area 5.

**ECON 2150 Interdependence of the Hawaiian Economy and the Environment: Field Projects (1-3 credits)**
Economic concepts and techniques in environmental valuation, sustainable development, and green accounting based on the report "Environmental Valuation and the Hawaiian Economy." Interconnection of the Hawaiian economy and environment through investigation of major environmental issues such as the role of forests, water quality and quantity, coral reef ecosystems, extractive activities versus eco-tourism, and invasive species. Direct observation of investment efforts toward achieving sustainability. Liberal Education Goal Area 5.

**ECON 2925 People and the Environment - Economic Perspective (3 credits)**
This course is a module linked to the interdisciplinary environmental issues course, People and the Environment. It is an integrative study of the natural, social, value-based, and citizen-action contexts for environmental awareness. The disciplinary component surveys economic approaches to and institutional settings for environmental decision making, including our behaviors as consumers and producers. Interdisciplinary perspectives are evaluated in light of different concepts of social well being, including economic efficiency, equity, and sustainability. Liberal Education Goal Area 10.

**ECON 3010 Public Economics (3 credits)**
Examines the rationale of public provision of selected goods and services and compares alternative tax structures in terms of their effects on the rest of the economy and their capacity for financing government expenditures. The effects of the political process on taxes and spending and selected topics in intergovernmental fiscal relations are also considered. Prerequisites: ECON 2000 and ECON 2100.

**ECON 3040 Environmental Economics (3 credits)**
Examines environmental problems as consequence of market's failure to accurately value environmental resources. Alternative private and public policies are examined in terms of their effectiveness in improving the efficiency and equity with which water, air and other resources are allocated. Prerequisite: ECON 2000 or consent of instructor. (Also offered under ENVR 3040.)

**ECON 3070 Labor Economics (3 credits)**
Analyzes structure and operation of labor markets as a background to exploring issues and topics related to collective bargaining and public policy. The impact of technological and institutional change on labor markets is considered. Prerequisite: ECON 2000 or consent of instructor.

**ECON 3200 Economics of the Financial Sector (3 credits)**
Looks at the operation of intermediaries and securities markets to allocate financial capital and price financial assets. The role of the central bank and related agencies in guiding the financial sector and influencing the macroeconomy are considered. Prerequisites: ECON 2000 and ECON 2100 or consent of instructor.

**ECON 3230 Benefit/Cost Analysis (3 credits)**
Develops the theoretical base of benefit/cost analysis in reviewing public investment projects and examines the application of this tool by specific agencies. Emphasis on the meaning and treatment of risk in policy analysis. Prerequisite: ECON 2000 or consent of instructor.

**ECON 3400 International Trade and Finance (3 credits)**
The origins and effects of trade and capital flows. The role of international financial markets in influencing trade flows and international investment. Prerequisite: ECON 2000.

**ECON 3700 Current Economic Topics (1-3 credits)**
Customized course providing in-depth investigation of a current issue of theory or policy. Content and credits may vary. Prerequisites: ECON 2000 and ECON 2100.

**ECON 4000 Microeconomic Decisions (3 credits)**
Individual decision making of households and firms. Resource allocation via market exchange in alternative market structures. Prerequisites: ECON 2000 and ECON 2300 or consent of instructor.

**ECON 4100 Macroeconomic Growth and Fluctuations (3 credits)**
Examines the sources of economic growth and cyclical fluctuations in a market economy, techniques for forecasting economic activity, and the potential for policy to improve performance. Prerequisites: ECON 2000 and ECON 2100 or consent of instructor.

**ECON 4920 Directed Group Study: Capstone Experience I (4 credits)**
Investigates advanced topics in micro and macro alternating years. Students are responsible for considerable out-of-class research and in-class presentations. Note: An appropriate internship may substitute for ECON 4920 in the major with department's permission. Prerequisites: ECON 4000 and ECON 4100, or consent of instructor.

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## Environmental Studies Courses

**ENVR 2000 Introduction to Environmental Science (3 credits)**
An introduction to environmental science emphasizing biological, physical-chemical and cross-cultural environmental social principles underlying major world environmental, political and economic issues; examination of the impacts of human activities and technology on global environmental and socio-economic stability; application of critical thinking and working with graphic skills and lab-like data analysis related to global environmental, biological, physical-chemical, cultural, and socio-economic topics. Liberal Education Goal Areas 3 & 10.

**ENVR 2150 Wilderness Ethics: Projects for Environmental Field Programs (1-3 credits)**
Major schools of thought on the meaning of wilderness, its importance to modern society, and implications for responsible citizenship. Notions of wilderness and wilderness ethics advanced by major authors, past and present. Wilderness policy in the United States and recommendations for revisions to the Wilderness Act. Relation of sustainability to wilderness protection and the benefits provided to society. Experiential learning by visiting key areas that meet certain criteria for wilderness and relation of these experiences to personal values, including ethical behavior in "wilderness" settings. Liberal Education Goal Area 9.

**ENVR 2925 People and the Environment - The Global Pollution Perspective (3 credits)**
This course is a section of the interdisciplinary environmental issues course, People and the Environment. The focus of this course is to explore the scientific aspects of global pollution, including causes, effects, and solutions. Liberal Education Goal Area 10.

**ENVR 3040 Environmental Economics (3 credits)**
Examines environmental problems as consequence of market's failure to accurately value environmental resources. Alternative private and public policies are examined in terms of their effectiveness in improving the efficiency and equity with which water, air, and other resources are allocated. Prerequisite: ECON 2000 or consent of instructor. (Also offered under ECON 3040.)

**ENVR 3300 Environmental Management and Safety (3 credits)**
Helps students pursuing environmental studies to develop environmental management skills required in both manufacturing and non-manufacturing businesses. Safe handling, transport, and storage of hazardous materials with respect to their physical and chemical nature, and application of regulatory requirements relevant to specific business and hazardous materials involved. Prerequisites: CHEM 1112 or CHEM 2212 or ENVR 2000 or GEOL 1110 or consent of instructor. May not be offered every year.

**ENVR 3600 Environmental Justice and Sustainability (3 credits)**
The ethical and moral dimensions of environmental choices. The legal, philosophical, political, and economic underpinnings of various theories of justice. A major focus is the inequitable distribution of environmental risks and the implications of policies that attempt to combat these risks. Prerequisite: ENVR 2000 or consent of instructor.

**ENVR 3840 Wetlands Ecology (3 credits)**
Survey course develops a basic understanding of the terminology, classification, ecology, values, and conservation of wetlands. Covers wetland systems from around the world, with emphasis on wetlands in North America. Prerequisites: BIOL 1211 and BIOL 1212.

**ENVR 3920 DGS: Seminar in Environmental Controversies (2 credits)**
When taken as Environmental Controversies Seminar, the following description applies: Faculty and student presentations followed by group discussion of classic and current problems, and governmental policies/regulations. Prerequisite: ENVR 2000 or consent of instructor.

**ENVR 4050 Geochemistry (3 credits)**
Study of processes in the lithosphere, hydrosphere, and atmosphere; cycling of the elements; weathering; microbe-mineral interactions; nanoparticles; microscopic imaging. Prerequisites: CHEM 1112 or CHEM 2212 or ENVR 2000 or GEOL 1110 or consent of instructor.

**ENVR 4101 Environmental Chemistry (3 credits)**
Intensive study of biogeochemical cycles of natural and man-made pollutants including transformations, transport, fate and persistence mechanisms. Environmental effects, long-term impacts, and methods of treatment/prevention are discussed. Prerequisites: CHEM 1112 or CHEM 2212 of consent of instructor.

**ENVR 4102 Environmental Chemistry II (3 credits)**
Study of processes affecting behavior and fate of anthroprogenic and natural compounds in the atmosphere, soils, and water. Colloidal and surface phenomena, nanoprocesses, redox reactions, speciation, solubility, and complexation. Prerequisite: ENVR/CHEM 4101; GEOL 1110; and ENVR 2000 or consent of instructor.

**ENVR 4200 Wastewater Treatment (3 credits)**
Introduction to the operation of the principal methods and treatment processes of municipal and industrial wastewaters, and for the disposal of treated effluent and sludges, and other solid materials. Integration of fundamental principles of science with different aspects of sanitary technology. Prerequisites: BIOL 1212, CHEM 1112 or CHEM 2212, MATH 1170, or consent of instructor. BIOL 1212 is not required for Chemistry majors.

**ENVR 4210 Environmental Law and Policy (3 credits)**
Overview of environmental laws, regulations, and policies. Prerequisite: Consent of instructor.

**ENVR 4220 Sampling and Analysis (4 credits)**
Methods of sampling and analysis of air, water, soil and other environmental compartments will be described in lecture and experienced in laboratory session. The focus is on regulations and prescribed protocols for environmental field and lab work. Prerequisites: CHEM 1112 or CHEM 2212 or ENVR 2000 or GEOL 1110 or consent of instructor.

**ENVR 4230 Air Pollution Technology (4 credits)**
In depth overview of sources and types of air pollution, major environmental impacts, regulations, and technologies for control and clean up. Prerequisites: CHEM 1112 or CHEM 2212 or ENVR 2000 or GEOL 1110 or consent of instructor.

**ENVR 4240 Waste Management (4 credits)**
An overview of the solid and hazardous waste situation at the local, state, national and international levels. The focus on management will include a systems approach to prevention, and remediation of wastes. Prerequisites: CHEM 1112 or CHEM 2212 or ENVR 2000 or GEOL 1110 or consent of instructor.

**ENVR 4260 Risk Assessment and Auditing (3 credits)**
Overview of human/environmental risk assessment methods and environmental auditing techniques, with a focus on regulatory compliance and case studies. Prerequisites: CHEM 1112 or CHEM 2212 or ENVR 2000 or GEOL 1110 or consent of instructor.

**ENVR 4400 Environmental Microbiology (3 credits)**
Fundamental aspects of microbiology as related to land production, environmental pollution and water quality control processes. The role of major groups of microbes as pollutants, as purifying agents, and as agents of biochemical changes, and ecological functions and importance of each group in the environment. Prerequisites: BIOL 1110 or BIOL 1120 or CHEM 1112 or CHEM 2212 or consent of instructor.

**ENVR 4500 Environmental Toxicology (4 credits)**
An overview of major environmental pollutants, their transport, fate and toxicology. Pollutant effects studied from practical and theoretical focus on stress at various levels of biological organization. Prerequisites: BIOL 1212, BIOL 2610, and CHEM 1112 or CHEM 2212, or consent of instructor.

**ENVR 4920 Directed Group Study: Senior Seminar (1 credit)**
A series of 2 seminars (1 credit each) will explore 1) the environmental job market and graduate school opportunities (Fall), and 2) current environmental issues/literature (Spring). Prerequisites: Senior status; Environmental Studies major, and ENVR 3920.

**ENVR 4970 Internship (3 credits)**
Graded Satisfactory/Unsatisfactory only. Student internships may be either full-time or part-time in a public or private agency appropriate to the degree objective. Internships consist of closely supervised periods of service that are arranged in advance of the course registration. Students should consult their advisor concerning prerequisites.

**ENVR 4990 Thesis (3 credits)**
A thesis written by the student that reports extensive original research carried out by the student and demonstrates appropriate methodology and scholarship.

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## Geography Courses

**GEOG 1224 Introduction to Map Use (3 credits)**
This course is designed for the liberal education program and provides an introduction to common characteristics and use of map media. Topographic maps will be used for physical analysis as well as to discern cultural and economic features of landscapes. Thematic maps, their use and applications will be presented. Includes some study out-of-doors with map and compass. Liberal Education Goal Areas 5 & 11.

**GEOG 1400 World Regional Geography (3 credits)**
A survey of physical, cultural, and economic aspects of world regions. An introduction to how constituent parts of the world differ from one another in their associated resources, cultures and economics. Attention is given to the interrelationships, interdependencies, and associations that bind together the diverse communities of the world. Liberal Education Goal Areas 7 & 8.

**GEOG 2100 Introduction to Physical Geography (3 credits)**
This course is designed for the liberal education program and provides an introduction to spatial patterns derived from earth system processes. The course provides a systematic survey of land forms, weather and climate, soils and vegetation. This course utilizes a combination of in class discussion and laboratory-like exercises to investigate these topics. Liberal Education Goal Area 3.

**GEOG 2200 Introduction to Human Geography (3 credits)**
Emphasizes the study of geographical relationships and interactions of cultural, social, economic, ethnic, and political phenomena. Topical approach to population subgroups, religions, languages, urban and rural settlements, and other attributes of the cultural landscape. Liberal Education Goal Areas 7 & 8.

**GEOG 2300 Economic Geography (3 credits)**
Spatial structure of world economic activities; agriculture, forestry, fishing, mining, industry and trade. Liberal Education Goal Area 5.

**GEOG 2400 Introduction to Planning (3 credits)**
This course is designed for the liberal education program and provides information on the background and fundamentals of the community planning process. Includes discussion of contemporary issues in physical, environmental and social planning. Emphasis is on the local and subregional levels. Liberal Education Goal Areas 5 & 9.

**GEOG 2925 People and the Environment: Geography Perspective (3 credits)**
An integrative study of the natural, social, value-based, and citizen-action contexts for environmental awareness. The disciplinary component surveys geographic approaches to and institutional settings for environmental problems and decision making, including our spatial behaviors as either sources or recipients of environmental impacts. Interdisciplinary perspectives are evaluated in light of different geographic concepts of spatial distributions, physical geography, and regional planning. Liberal Education Goal Area 10.

**GEOG 3125 Weather and Climate (3 credits)**
Weather is the study of the atmosphere over short time scales, while climate is the study of long-term weather trends. The study of weather is commonly termed meteorology, which is actually a branch of physics associated with fluid dynamics. Climate is associated with statistical procedures and analyses. This course examines the geographic patterns and processes of global climate and weather, as well as topics such as global climate change, global climate models, and extreme weather events. Students learn about the Earths atmosphere; energy budgets and astronomical controls on weather processes; oceanic and atmospheric circulation; the basic atmospheric parameters; atmospheric hazards such as tornadoes, hurricanes, hail, and lightning; and global climate change issues. Prerequisite: GEOG 2100 or consent of instructor.

**GEOG 3226 Cartography (3 credits)**
This course provides a more integrated, practical link between cartographic theory and practice for users of GIS. This course blends theoretical discussion of GIS as a science and GIS as a software application and addresses through lecture and laboratory work map productions for a variety of audiences. A particular focus of this course is on quality communication through maps. Experience with GIS software is essential. Prerequisite: GEOG 3231.

**GEOG 3231 Introduction to Geographic Information Systems (3 credits)**
This course develops a proficiency in basic GIS skills for those new to GIS. Techniques for problem solving and cartographic mapping concepts are also introduced, as they are essential to quality cartographic representation and a marketable skill set. This course concentrates on learning to navigate the current version of ArcGIS software at a beginner's level and one developing and creating maps as communication tools.

**GEOG 3232 Intermediate Geographic Information Systems (3 credits)**
An intermediate course on the theories and application of GIS for spatial data management and analysis, thematic mapping, environmental modeling. This course expands on the concepts and methods presented in Introduction to GIS and guides students through a more comprehensive overview of principles and techniques used in GIS. Course objectives include (1) enhance and build knowledge of GIS as a system and science, (2) improve skills at GIS analysis, and (3) develop and improve problem solving skills. Prerequisite: GEOG 3231 or consent of instructor.

**GEOG 3255 Introduction to Remote Sensing (3 credits)**
Analysis of a special class of pictures that provide an overhead perspective. These images have unique properties that provide a distinct advantage to assessing spatial changes and patterns of change on the Earths surface. Students develop an understanding and the skills necessary for interpreting air photos, satellite, and remotely sensed images. Prerequisite: GEOG 3231 or consent of instructor.

**GEOG 3410 Geography of North America (3 credits)**
A regional analysis of the physical, demographic, economic and cultural characteristics of the nations in North America.

**GEOG 3460 Teaching of Middle and Secondary School Social Studies (4 credits)**
Objectives, activities, methods, and materials in teaching social studies in grades 5-12. Additional laboratory time is required. Prerequisite: ED 3110.

**GEOG 3531 Political Geography (3 credits)**
This course utilizes "World Systems Theory" to investigate 1) theories of State formation and organization; 2) historical processes of imperialism, colonialism, and decolonization; 3) major issues of the emerging political economy; 4) historical and contemporary geopolitics; and 5) the political geography of everyday life.

**GEOG 3532 Political Ecology (3 credits)**
Political ecology utilizes a necessary geographical perspective to understand and analyze the biophysical processes that shape issues otherwise inadequately conceptualized as political, economic or social. This spatial understanding developed by political geographers reveals relationships of the ecological and the political that are simultaneously mutually reinforcing and, often, mutually antagonistic. Prerequisite: GEOG 3531 or consent of instructor.

**GEOG 3550 Site and Resource Analysis in Planning (3 credits)**
This course emphasizes techniques and methods in the location, analysis, evaluation, and design of sites, focusing on identifying use potentials and impact limitations for planning and management. Prerequisite: GEOG 2400 or consent of instructor.

**GEOG 3560 Metropolitan Land Use Planning (3 credits)**
An examination of the identification and inventory methods of land use analysis including the designing of land use models which are compatible with environmental, social, and economic goals. Prerequisites: GEOG 2100, GEOG 2400, or consent of instructor. Prior completion of or concurrent enrollment in either GEOG 3550 or GEOG 3570 is recommended.

**GEOG 3570 Public Lands Planning (3 credits)**
Comparison and evaluation of natural resource management policies and analytical techniques of the U.S. Forest Service, Bureau of Land Management, National Park Service and U.S. Fish and Wildlife Service. Attention is paid to the historical and contemporary land management approaches used to protect, exploit, manage, and/or use public lands in the United States. Especially relevant are jurisdictional issues over public land, federal agencies involved in land management, state and local issues and land management, and contemporary issues associated with land management in the 21st Century. Prerequisites: GEOG 2400 and GEOG 3550, or consent of instructor.

**GEOG 3580 Regional Development Planning (3 credits)**
An examination of methods and processes emphasizing contemporary relationships between planners and governments, the private sector, and nongovernmental organizations regarding relationships between regions nationally and internationally, with special attention to environmental sustainability. Prerequisite(s): GEOG 2400 and GEOG 3570, and either GEOG 2300 or GEOG 3560. Students are strongly recommended to have previously completed GEOG 4265 or to be enrolled in GEOG 4265 concurrently with GEOG 3580.

**GEOG 3630 Conservation Biology (3 credits)**
Principles and theories of conservation biology. Topics include biodiversity, threats to biodiversity, extinctions, management of threatened and endangered species, managing habitats for conservation, and methods to mitigate biodiversity loss. Prerequisites: BIOL 1211 and BIOL 1212, or consent of instructor. Also BIOL 3630.

**GEOG 3800 Regional Geography (1-3 credits)**
A regional and topical analysis of the cultural and physical features of a continent or major region of the earth. May be repeated provided different regions are involved. Note: Recommended for students in international studies, foreign languages, and for prospective teachers in the humanities or social studies.

**GEOG 3810 Geography of Europe (3 credits)**
A regional analysis of the cultural, economic, physical and landscape patterns of the European cultural region. NOTE: Recommended for students in Euro-Spring, International Studies, foreign languages, and prospective teachers. Liberal Education Goal Area 5.

**GEOG 3820 Geography of East, South, and Southeast Asia (3 credits)**
This course is designed to provide a more in depth look at Asian sub regions of South, East and Southeast Asia. Geographically, we will examine and analyze activities in this part of the world through cultural, demographic, political, economic, urban and geopolitical lenses. Liberal Education Goal Area 8. Might not be offered every year. Prerequisite: GEOG 1400 or GEOG 2200.

**GEOG 3840 Geography of Africa (3 credits)**
Despite persistent bias about it, Africa's cultural complexity, social dynamism, and political/economic struggle have tremendous relevance for the study of global trends at the start of the twenty-first century. The central purpose of this course is to demonstrate that relevance by investigating the cultural, historical, economic, and political dimensions of change in Africa.

**GEOG 3850 Geography of the Middle East (3 credits)**
This course is designed to provide a more in depth look at the region we routinely describe as the Middle East. Geographically, we will examine activities in SW Asia and the nations of North Africa. We may extend our discussion to the countries of Afghanistan, the Sudan, South Sudan and Turkey to provide a more comprehensive analysis of a particular topic or subtopic. This is a highly complex region and may be looked at from numerous perspectives. Our objective thus is to examine the region through economic, cultural, environmental, urban and geopolitical lenses. Prerequisite: GEOG 1400 or GEOG 2200.

**GEOG 3860 Geography of Latin America and the Caribbean (3 credits)**
This course is designed to provide a more in depth look at the region of Latin America and the Caribbean. We recognize at the outset that this is a broad subject and may be looked at from numerous perspectives. Our objective thus is to examine this geographic region through economic, cultural, environmental, urban and political lenses. The text book provides the basis for our study which is further complemented by each students (1) research into an issue or event that had a far reaching impact on this region or within its sub-regions, (2) reading of works of fiction set in Latin America and (3) viewing feature films with Latin American themes. Prerequisite: GEOG 1400 or GEOG 2200.

**GEOG 4120 Urban Geography (3 credits)**
Functions and distribution of cities. Urban sizes, hierarchies, and external relations with the countryside. The central place and other theories of the spacing of cities. Internal structures and functions of cities, the growth of cities, urban slums, urban sprawl, and city planning. Systematic. Prerequisite: GEOG 2200 or consent of instructor.

**GEOG 4130 Biogeography (3 credits)**
This course examines the distribution and diversity of flora and fauna across multiple scales. It will focus on the factors that shape and influence these patterns and investigate the role of disturbance in this process. It will also incorporate both field and lab experiences to further examine the key concepts of biogeography. Prerequisites: GEOG 2100 and GEOG 3231.

**GEOG 4140 Landscape Ecology (3 credits)**
This course examines the connection of pattern and process at the scale of the landscape. Students will utilize several analytical methods to examine and explain how humans, disturbance and natural process work in concert to create landscape-level dynamics and change. The course will also cover how landscape ecology is applied to assist in conservation efforts. Prerequisites: GEOG 2100 and GEOG 3231.

**GEOG 4190 Qualitative Methods in Geographic Research (3 credits)**
As a geographic perspective becomes increasingly important in analysis of critical issues at multiple scales from the local to the global, this course demonstrates how research grounded in qualitative methodologies encourages innovative approaches and yields significant insights. Prerequisite: GEOG 2200. While not required, it is highly recommended that GEOG 4210 and GEOG 4265 be taken previously or concurrently.

**GEOG 4210 The History and Development of Geographic Thought (3 credits)**
Development of the discipline of Geography with emphasis on both the historical and recent developments in the field. Includes a critical analysis of writing of representative geographers.

**GEOG 4265 Spatial Analysis (3 credits)**
An examination in the concepts and application of advance spatial statistical methodologies. These include, kriging, spatial autocorrelation, spatial regression models, and cluster analysis. Prerequisites: STAT 2610 or PSY 3401 or BUAD 2231 and GEOG 3231.

**GEOG 4275 Advanced Geographic Information Systems (3 credits)**
This course will give students hands on experience working with advanced geodatabases, the basic automation and scripting of geospatial processes, web mapping, and server side application in GIS. Prerequisites: GEOG 3231 and GEOG 3232.

**GEOG 4910 Directed Independent Study (4 credits)**
Arranged individual study.

**GEOG 4970 Internship (4 credits)**
Graded Satisfactory/Unsatisfactory only. Student internships may be either full-time or part-time in a public or private agency appropriate to the degree objective. Internships consist of closely supervised periods of service that are arranged in advance of the course registration. Students should consult their advisor concerning prerequisites.

**GEOG 4990 Thesis (3 credits)**
Working individually with a thesis advisor, the student produces a Geography thesis. The thesis must be a scholarly piece of work, based on empirical or archival research of a geographical issue (physical, demographic, economic, cultural, and/or political) of present or future relevance. The end product is a documented essay of at least minimally required length and format that must be approved by the advisor and at least one other member of the Geography Department after a brief oral defense.

## All-University Courses

The course numbers listed below, not always included in the semester class schedule, may be registered for by consent of the advisor, instructor, or department chair, or may be assigned by the department when warranted. Individual registration requires previous arrangement by the student and the completion of any required form or planning outline as well as any prerequisites.

1910, 2910, 3910, 4910 DIRECTED INDEPENDENT STUDY
1920, 2920, 3920, 4920 DIRECTED GROUP STUDY
1930, 2930, 3930, 4930 EXPERIMENTAL COURSE
1940, 2940, 3940, 4940 IN-SERVICE COURSE
1950, 2950, 3950, 4950 WORKSHOP, INSTITUTE, TOUR
1960, 2960, 3960, 4960 SPECIAL PURPOSE INSTRUCTION
1970, 2970, 3970, 4970 INTERNSHIP
1980, 2980, 3980, 4980 RESEARCH
1990, 2990, 3990, 4990 THESIS

## Political Science Courses

**POL 1100 Understanding Politics (3 credits)**
An introduction to the basic ideologies, concepts, processes and institutions of modern government and politics. Liberal Education Goal Areas 5 & 9.

**POL 1200 Introduction to American Politics (3 credits)**
An introductory survey to the institutions and actors, such as the media, interest groups, political parties, congress, and presidency of contemporary American government and politics. Liberal Education Goal Area 5 & 9.

**POL 1300 Introduction to International Relations (3 credits)**
Surveys various theories explaining the behavior of nation-states, the causes of war and peace as well as the role of multinational corporations and international organizations in international politics. Liberal Education Goal Areas 8 & 9.

**POL 1400 Introduction to Comparative Politics (3 credits)**
A comparative analysis of political systems and their functions in the context of unique cultures and histories. Liberal Education Goal Area 8.

**POL 1500 Mock Trial (1 credit)**
Through engaging in trial simulations in competition with teams from other institutions, students develop critical thinking and public speaking skills, as well as knowledge of legal practices and procedures.

**POL 2925 People and the Environment: Political Science Perspective (3 credits)**
An introduction to political processes and institutions involved in making environmental policy. Might not be offered every year. Liberal Education Goal Area 10.

**POL 2953 Study-Travel, History and the Social and Behaviorial Sciences (1-6 credits)**
Study Travel course in Political Science for Lib Ed Goal Area 5.

**POL 3100 American Foreign Policy (3 credits)**
Traces the development of American foreign policy: its objectives, limitations, domestic and international factors influencing foreign policy. Prerequisite: POL 1300. (Might not be offered every year.)

**POL 3130 Asian Political Development (3 credits)**
Course investigates the unique political and economic challenges facing the countries of Asia and South Asia. Prerequisite: POL 1400. (Might not be offered every year.)

**POL 3140 Canadian Politics (3 credits)**
Explanation of Canada's history, political and economic systems, and regional variations within the nation-state. Special attention to political parties, ideologies, policy processes, and outcomes. (Might not be offered every year.)

**POL 3150 Topics in Political Science (1-3 credits)**
Course explores underlying political dimensions of topical issues. (Might not be offered every year.)

**POL 3160 Comparative European Politics (3 credits)**
Course includes an analysis of political structures and processes in Europe. The mechanisms of parliamentary governments, political parties, interest groups and ideologies are included. Prerequisite: POL 1400. (Might not be offered every year.)

**POL 3170 International Relations (3 credits)**
The study of conflict and cooperation in international relations, the foreign policies of the great powers, international organizations, and the United Nations. Prerequisite: POL 1300. (Might not be offered every year.)

**POL 3180 International Law and Organization (3 credits)**
Explores the role of international organizations such as the United Nations, economic alliances, international law, and regional consolidation in international politics. Prerequisite: POL 1300. (Might not be offered every year.)

**POL 3190 International Political Economy (3 credits)**
Analyzes how economic policy decisions are made within and between countries and the effect those decisions have on affected interests in domestic and international politics. Prerequisite: POL 1300. (Might not be offered every year.)

**POL 3200 Minnesota Politics (3 credits)**
Using Minnesota politics as a central focus, the role of and function of state and local governments in the context of American federalism is examined. Prerequisite: POL 1200. (Might not be offered every year.)

**POL 3210 Public Administration (3 credits)**
An introduction to the field of public administration. Emphasis is on the political dimensions of management in the public sector. Prerequisite: POL 1200. (Might not be offered every year.)

**POL 3230 Environmental Politics (3 credits)**
Surveys the dynamics of the policy process that produce our environmental policies. An analysis of actors, institutions, and organizations that shape U.S. environmental law and policy. Prerequisite: POL 1200 or consent of instructor. (Might not be offered every year.)

**POL 3240 Political Analysis (3 credits)**
Examines the application of political science research methodology to current questions of politics and public policy. Prerequisite: Completion of Core Curriculum mathematics requirement (Goal Area 4) or consent of instructor.

**POL 3400 Political Theory (3 credits)**
This course surveys the development of western political thought. Included is an examination of some of the ideas and values associated with major social and political movements in Europe and the United States. Topics will vary and may include liberalism, conservatism, populism, democracy, communism, nationalism, fascism, environmentalism, realism, and feminism. POL 1100 or consent of instructor. (Might not be offered every year.)

**POL 3410 Legislative and Executive Relations (3 credits)**
Explores the legislative process by analyzing the motives and evolving legislative styles of legislators in relation to the evolution and powers of the modern presidency and executive establishment. Prerequisite: POL 1200. (Might not be offered every year.)

**POL 3420 Campaigns and Elections (3 credits)**
Includes analysis of the congressional and presidential electoral process, including the role of political parties, interest groups, and the media. Prerequisite: POL 1200. (Might not be offered every year.)

**POL 3910 Directed Independent Study: Student Leadership (1 credit)**
Directed Independent Study

**POL 3970 Internship (3 credits)**
Graded Satisfactory/Unsatisfactory only. Student internships may be either full-time or part-time in a public or private agency appropriate to the degree objective. Internships consist of closely supervised periods of service that are arranged in advance of the course registration. Students should consult their advisor concerning prerequisites.

**POL 4100 Political Inquiry (3 credits)**
Students will learn the theory and practice of quantitative political analysis through the completion of original research projects. Prerequisites: POL 3240.

**POL 4200 Constitutional Law (3 credits)**
An examination of legal interpretations of the constitution regarding the separation of powers and the Bill of Rights. Prerequisite: POL 1200. (Might not be offered every year.)

**POL 4500 Thesis and Career Preparation (3 credits)**
This is a senior year capstone course. In a seminar format, students discuss progress on their individual research projects and develop career plans and skills. Prerequisite: POL 4100 or consent of instructor.

### All-University Courses

The course numbers listed below, not always included in the semester class schedule, may be registered for by consent of the advisor, instructor, or department chair, or may be assigned by the department when warranted. Individual registration requires previous arrangement by the student and the completion of any required form or planning outline as well as any prerequisites.

1910, 2910, 3910, 4910 DIRECTED INDEPENDENT STUDY
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1970, 2970, 3970, 4970 INTERNSHIP
1980, 2980, 3980, 4980 RESEARCH
1990, 2990, 3990, 4990 THESIS

## Sociology Courses

**SOC 1104 Society and Social Issues (3 credits)**
Examines concepts and theories that describe and explain social life. Focuses on aspects of culture, social class, race relations, and gender relations as they are determined by society, and on how humans create and recreate groups, structures, and institutions. Liberal Education Goal Area 5.

**SOC 2200 Social Movements and Change (3 credits)**
A social history of social movements and change. Focuses on understanding and analyzing these dynamics as generational changes and as the emergence of broader social forces driving the major movements of the past fifty years. The shift from modernity to postmodernity sets the overall theoretical framework, with an emphasis on the dynamics of race, class, gender, environment, and culture. Liberal Education Goal Area 8.

**SOC 2230 Race and Ethnic Relations (3 credits)**
Study of dominant-subordinate relations with emphasis on racial and ethnic inequalities. Examination of privilege, prejudice and discrimination. Liberal Education Goal Areas 7 & 9.

**SOC 2240 Men, Women, and Society: A Sociological Interpretation (3 credits)**
Study of the construction of gender in society and the differential consequences of particular social arrangements on the lives of men and women. Examines gender, male and female sexuality, intimate relationships, gendered patterns of work and education, the gender of violence, and sociological theories of femininity and masculinity. Emphasizes changes in gendered social patterns in U.S. society in the 21st century and compares those changes to shifting patterns in other societies. Liberal Education Goal Areas 5 & 7.

**SOC 2925 People and the Environment: Sociology Perspective (3 credits)**
This course is a section of the interdisciplinary environmental issues course, People and the Environment. The focus of this course is to understand that environmental problems are both problems for society and problems of society. Students explore how sociology and its unique viewpoint add much to understanding the environment/society nexus. Liberal Education Goal Area 10.

**SOC 3001 Social Statistics (3 credits)**
Covers a conceptual understanding of basic descriptive and inferential statistics. Choice of statistic and interpretation of SPSS results is discussed. Prerequisite: Completion of Liberal Education mathematics requirement (Goal Area 4) or consent of instructor.

**SOC 3003 Research Methods (3 credits)**
Examines the basic methods used to study diverse social processes and to improve our understanding of social issues. Topics include the relationship of theory to research, research ethics, evaluation of qualitative and quantitative research designs and patterns of analysis, and associated concerns. Prerequisite: SOC 1104.

**SOC 3010 Social Theory (3 credits)**
An overview of selected sociological theories and theorists considered against the background of the classical period of sociological theorizing in the nineteenth and early twentieth centuries. Emphasis on comparative understanding of the major models of society - order, pluralism, conflict, etc. - that have dominated sociological thinking in the modern period. Prerequisites: SOC 1104 or consent of instructor.

**SOC 3040 Global Issues (3 credits)**
Study of global and local forces that affect groups, organizations, institutions, and societies. Involves an exploration of the rise of contemporary social issues, with a particular focus on developments associated with ethnic, religious, and regional affiliations and shifting social, economic, and political alliances. Students will have a chance to explore the development of global patterns of stratification and its effects on particular groups and societies.

**SOC 3050 Environmental Sociology (3 credits)**
Examines the relationship between society and the environment. Emphasis on political and economic institutions and the consumer lifestyle and values. Considers how the treadmill of production affects ecosystems and discusses possible solutions to environmental problems. Prerequisites: SOC 1104 or consent of instructor.

**SOC 3080 Education and Careers (3 credits)**
Studies how educational institutions and individual experiences affect education and the outcomes of education. Provides students with an opportunity to explore career and civic engagement interests.

**SOC 3090 Social and Ethical Issues in Health and Medicine (3 credits)**
Examines social and ethical issues related to the practice of medicine. Students develop an understanding of the sociological causes of illness, the medicalization of society, and the values and assumptions of those who define and deliver medical care in society. Today people point to the fact that we are experiencing a crisis in health care in the U.S. Costs have skyrocketed, access to primary care is inequitable, infant mortality rates remain high, public accountability problems persist, and we continue to emphasize medical care over and above health care. Sociological interpretations raise questions about these issues, and point to the ways in which society continues to produce disease and illness. As these topics are explored through the sociological lens, the complex ethical dilemmas associated with medical understandings and possible alternatives that emphasize health are identified. Liberal Education Goal Area 9.

**SOC 3230 Social Psychology (3 credits)**
An overview of theory and research in social psychology from a sociological viewpoint. Emphasizes the impact of social location on thought, behavior, and emotion. Explores patterns of interpersonal relationships and small group processes, and why humans establish certain "taken-for-granted" meaning systems and ways of being. Prerequisite: SOC 1104 or consent of instructor.

**SOC 3270 Intersections of Sexuality and Gender (3 credits)**
Exploration of the sexual norms associated with being male and female in Western and non-Western societies. Examines how particular forms of sexuality are privileged and the social and political implications of these hierarchies. Also examined is how the nature of race, sexuality, and gender creates hybrid identities, communities, and cultures that resist and reinforce ethnic and national boundaries.

**SOC 3300 Family and Society (3 credits)**
After a brief introduction to basic sociological concepts, frameworks, methods, and relevant historical materials, students examine several documents that address particular contemporary family issues. Students also learn how to evaluate the materials discussed. Liberal Education Goal Area 5.

**SOC 4800 Capstone in Sociology (3 credits)**
Students decide on a research question and carry out an independent project.

## All-University Courses

The course numbers listed below, not always included in the semester class schedule, may be registered for by consent of the advisor, instructor, or department chair, or may be assigned by the department when warranted. Individual registration requires previous arrangement by the student and the completion of any required form or planning outline as well as any prerequisites.

1910, 2910, 3910, 4910 DIRECTED INDEPENDENT STUDY
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1980, 2980, 3980, 4980 RESEARCH
1990, 2990, 3990, 4990 THESIS

# Biology

The Biology program grants several majors, including Biology, B.S.; Biology, B.A.; Aquatic Biology, B.S.; Life Science Specialty, Science Education, B.S.; and Clinical Laboratory Science, B.S. In addition, students may choose from several emphases within the Biology major, including Wildlife Management, Medical Sciences, and Cellular and Molecular Biology. From field to laboratory studies, the Biology program offers diverse opportunities for personal and professional study and growth.

**Programs**

- Aquatic Biology, B.S. (Aquatic Systems Emphasis)*major*
- Aquatic Biology, B.S. (Fisheries Biology Emphasis)*major*
- Aquatic Biology, B.S. (Wetlands Ecology Emphasis)*major*
- Biology, B.A. *major*
- Biology, B.S. (Cellular and Molecular Emphasis (Optional))*major*
- Biology, B.S. (Medical Sciences Emphasis (Optional))*major*
- Biology, B.S. *major*
- Medical Laboratory Science, B.S. ((4 + 1 Option))*major*
- Medical Laboratory Science, B.S. ((3 + 1 Option))*major*
- Science Education, B.S. (Life Science Specialty (Teacher Licensure))*major*
- Wildlife Biology, B.S. *major*
- Biology *minor*
- Wetlands Ecology *minor*

**Career Directions**

Agricultural Sales
Allied Health Professions
Aquatic Biology
Biotechnology
Clinical Laboratory Sciences
Consultant
Education
Field Biology
Fisheries Biology
Food Sciences
Government Service
Industry
Invertebrate Zoology
Laboratory Biology
Medical Professions
Microbiology
Natural History
Pharmaceutical and Biomedical Products Sales
Research
Science and Technical Writing
Wetlands Science
Wildlife Sciences
Also: Graduate Study

**Preparation**

*Recommended High School Courses*

Algebra

Biology

Chemistry

Physics

Precalculus

Trigonometry

## Aquatic Biology, B.S. *major*
## Aquatic Systems Emphasis

Required Credits: 77
Required GPA: 2.25

**I REQUIRED BIOLOGY CORE COURSES**

COMPLETE THE FOLLOWING COURSES:

- BIOL 1211 Introductory Biology I (4 credits)
- BIOL 1212 Introductory Biology II (4 credits)
- BIOL 2360 Genetics (4 credits)
- BIOL 2610 General Ecology (3 credits)
- BIOL 2620 Field and Laboratory Projects in Ecological Research (2 credits)

**II REQUIRED AQUATIC BIOLOGY CORE COURSES**

COMPLETE THE FOLLOWING COURSES:

- BIOL 4200 Freshwater Invertebrates (4 credits)
- BIOL 3361 Limnology I (4 credits)
- BIOL 3362 Limnology II (4 credits)
- BIOL 3554 Readings in Aquatic Biology (1 credit)
- BIOL 3830 Aquatic Plants (4 credits)

**III CAPSTONE EXPERIENCE**

Complete option A or B.

A. COMPLETE THE FOLLOWING COURSES:

- BIOL 4894 Advanced Research Project I (2 credits)
- BIOL 4895 Advanced Research Project II (2 credits)

B. COMPLETE SOME OTHER CAPSTONE EXPERIENCE APPROVED BY YOUR BIOLOGY ACADEMIC ADVISOR AND THE

DEPARTMENT

**AQUATIC SYSTEMS EMPHASIS**

REQUIRED CORE COURSES
COMPLETE THE FOLLOWING COURSE:

- BIOL 4534 Ichthyology (4 credits)

ELECTIVE CORE COURSES
SELECT A MINIMUM OF 12 CREDITS FROM THE FOLLOWING:

- BIOL 3310 Entomology (4 credits)
- BIOL 3630 Conservation Biology (3 credits)
  *or* GEOG 3630 Conservation Biology (3 credits)
- BIOL 3723 Ecosystem Ecology (3 credits)
- BIOL 3850 Marine Biology (3 credits)
- BIOL 4620 Evolution (3 credits)
- CHEM 3150 Standard Methods of Water Analysis (3 credits)
- GEOG 3231 Introduction to Geographic Information Systems (3 credits)

ADDITIONAL ELECTIVES
SELECT AN ADDITIONAL 3-4 CREDITS OF BIOLOGY ELECTIVES AT THE 3000 LEVEL OR ABOVE.

**V REQUIRED COURSES IN RELATED FIELDS**

COMPLETE THE FOLLOWING COURSES:

- CHEM 2211 Principles of Chemistry I (4 credits)
- CHEM 2212 Principles of Chemistry II (4 credits)
- STAT 2610 Applied Statistics (4 credits)
  *or* PSY 3401 Basic Statistics for Research (4 credits)

SELECT 1 OF THE FOLLOWING COURSES:

- PHYS 1101 General Physics I (4 credits)
- PHYS 2101 Physics I (5 credits)

SELECT 1 OF THE FOLLOWING COURSES:

- PHYS 1102 General Physics II (4 credits)
- PHYS 2102 Physics II (5 credits)

## Aquatic Biology, B.S. *major*
## Fisheries Biology Emphasis

Required Credits: 77
Required GPA: 2.25

**I REQUIRED BIOLOGY CORE COURSES**

COMPLETE THE FOLLOWING COURSES:

- BIOL 1211 Introductory Biology I (4 credits)
- BIOL 1212 Introductory Biology II (4 credits)
- BIOL 2360 Genetics (4 credits)
- BIOL 2610 General Ecology (3 credits)
- BIOL 2620 Field and Laboratory Projects in Ecological Research (2 credits)

**II REQUIRED AQUATIC BIOLOGY CORE COURSES**

COMPLETE THE FOLLOWING COURSES:

- BIOL 4200 Freshwater Invertebrates (4 credits)
- BIOL 3361 Limnology I (4 credits)
- BIOL 3362 Limnology II (4 credits)
- BIOL 3554 Readings in Aquatic Biology (1 credit)
- BIOL 3830 Aquatic Plants (4 credits)

**III CAPSTONE EXPERIENCE**

Complete option A or B.

A. COMPLETE THE FOLLOWING COURSES:

- BIOL 4894 Advanced Research Project I (2 credits)
- BIOL 4895 Advanced Research Project II (2 credits)

B. COMPLETE SOME OTHER CAPSTONE EXPERIENCE APPROVED BY YOUR BIOLOGY ACADEMIC ADVISOR AND THE DEPARTMENT

**FISHERIES BIOLOGY EMPHASIS**

REQUIRED CORE COURSES
COMPLETE THE FOLLOWING COURSES:

- BIOL 4534 Ichthyology (4 credits)
- BIOL 4545 Fisheries Management (4 credits)

ELECTIVE CORE COURSES
SELECT A MINIMUM OF 6 CREDITS FROM THE FOLLOWING:

- BIOL 3150 Animal Behavior (3 credits)
- BIOL 4210 Parasitology (4 credits)
- BIOL 4620 Evolution (3 credits)
- CHEM 3150 Standard Methods of Water Analysis (3 credits)
- ENVR 3040 Environmental Economics (3 credits)
  *or*ECON 3040 Environmental Economics (3 credits)
- ENVR 4210 Environmental Law and Policy (3 credits)
- GEOG 3231 Introduction to Geographic Information Systems (3 credits)

ADDITIONAL ELECTIVES
SELECT AN ADDITIONAL 5-6 CREDITS OF BIOLOGY ELECTIVES AT THE 3000 LEVEL OR ABOVE.

**V REQUIRED COURSES IN RELATED FIELDS**

COMPLETE THE FOLLOWING COURSES:

- CHEM 2211 Principles of Chemistry I (4 credits)
- CHEM 2212 Principles of Chemistry II (4 credits)
- STAT 2610 Applied Statistics (4 credits)
  *or* PSY 3401 Basic Statistics for Research (4 credits)

SELECT 1 OF THE FOLLOWING COURSES:

- PHYS 1101 General Physics I (4 credits)
- PHYS 2101 Physics I (5 credits)

SELECT 1 OF THE FOLLOWING COURSES:

- PHYS 1102 General Physics II (4 credits)
- PHYS 2102 Physics II (5 credits)

## Aquatic Biology, B.S. *major*
## Wetlands Ecology Emphasis

Required Credits: 77
Required GPA: 2.25

**I REQUIRED BIOLOGY CORE COURSES**

COMPLETE THE FOLLOWING COURSES:

- BIOL 1211 Introductory Biology I (4 credits)
- BIOL 1212 Introductory Biology II (4 credits)
- BIOL 2360 Genetics (4 credits)
- BIOL 2610 General Ecology (3 credits)
- BIOL 2620 Field and Laboratory Projects in Ecological Research (2 credits)

**II REQUIRED AQUATIC BIOLOGY CORE COURSES**

COMPLETE THE FOLLOWING COURSES:

- BIOL 4200 Freshwater Invertebrates (4 credits)
- BIOL 3361 Limnology I (4 credits)
- BIOL 3362 Limnology II (4 credits)
- BIOL 3554 Readings in Aquatic Biology (1 credit)
- BIOL 3830 Aquatic Plants (4 credits)

**III CAPSTONE EXPERIENCE**

Complete option A or B.

A. COMPLETE THE FOLLOWING COURSES:

- BIOL 4894 Advanced Research Project I (2 credits)
- BIOL 4895 Advanced Research Project II (2 credits)

B. COMPLETE SOME OTHER CAPSTONE EXPERIENCE APPROVED BY
YOUR BIOLOGY ACADEMIC ADVISOR AND THE DEPARTMENT

**WETLANDS ECOLOGY EMPHASIS**

REQUIRED CORE COURSES:
COMPLETE THE FOLLOWING COURSES:

- BIOL 3840 Wetlands Ecology (3 credits)
  *or* ENVR 3840 Wetlands Ecology (3 credits)
- BIOL 3844 Wetlands Ecology Lab (1 credit)
- BIOL 4030 Wetland Delineation and Classification (3 credits)

ELECTIVE CORE COURSES
SELECT A MINIMUM OF 8 CREDITS FROM THE FOLLOWING:

- BIOL 3630 Conservation Biology (3 credits)
  *or* GEOG 3630 Conservation Biology (3 credits)
- BIOL 3723 Ecosystem Ecology (3 credits)
- CHEM 3150 Standard Methods of Water Analysis (3 credits)
- ENVR 4210 Environmental Law and Policy (3 credits)
- GEOG 3231 Introduction to Geographic Information Systems (3 credits)
- GEOG 3232 Intermediate Geographic Information Systems (3 credits)
- GEOL 3211 Environmental Hydrology (3 credits)
- BIOL 3120 Soils (4 credits)
  *or* GEOL 3120 Soils (4 credits)
- BIOL 4031 Advanced Wetland Delineation (2 credits)

ADDITIONAL ELECTIVES
SELECT AN ADDITIONAL 4-5 CREDITS OF BIOLOGY ELECTIVES AT THE 3000 LEVEL OR ABOVE.

**V REQUIRED COURSES IN RELATED FIELDS**

COMPLETE THE FOLLOWING COURSES:

- CHEM 2211 Principles of Chemistry I (4 credits)
- CHEM 2212 Principles of Chemistry II (4 credits)
- STAT 2610 Applied Statistics (4 credits)
  *or* PSY 3401 Basic Statistics for Research (4 credits)

SELECT 1 OF THE FOLLOWING COURSES:

- PHYS 1101 General Physics I (4 credits)
- PHYS 2101 Physics I (5 credits)

SELECT 1 OF THE FOLLOWING COURSES:

- PHYS 1102 General Physics II (4 credits)
- PHYS 2102 Physics II (5 credits)

## Biology, B.A. *major*

Required Credits: 40
Required GPA: 2.25

**I REQUIRED BIOLOGY CORE COURSES**

COMPLETE THE FOLLOWING COURSES:

- BIOL 1211 Introductory Biology I (4 credits)
- BIOL 1212 Introductory Biology II (4 credits)
- BIOL 2360 Genetics (4 credits)
- BIOL 2610 General Ecology (3 credits)

**II REQUIRED BIOLOGY ELECTIVES**

SUBORGANISMAL
SELECT 1 OF THE FOLLOWING COURSES:

- BIOL 3260 Medical Physiology (4 credits)
- BIOL 3300 Introduction to Hematology (4 credits)
- BIOL 3380 Molecular Genetics: Theory and Practice (4 credits)
- BIOL 3580 Immunology (4 credits)
- BIOL 3590 Cell Biology (4 credits)
- BIOL 3720 Plant Form and Function (4 credits)
- BIOL 3755 Medical Microbiology (3 credits)
- BIOL 4270 Histology (4 credits)
- BIOL 4360 Developmental and Tumor Biology (4 credits)

ORGANISMAL
SELECT 1 OF THE FOLLOWING COURSES:

- BIOL 2110 Human Anatomy and Physiology (5 credits)
- BIOL 3250 Comparative Vertebrate Anatomy (4 credits)
- BIOL 3310 Entomology (4 credits)
- BIOL 3710 Microbiology (4 credits)
- BIOL 3730 Plant Diversity (4 credits)
- BIOL 3830 Aquatic Plants (4 credits)
- BIOL 4200 Freshwater Invertebrates (4 credits)
- BIOL 4210 Parasitology (4 credits)
- BIOL 4510 Ornithology (4 credits)
- BIOL 4520 Mammalogy (4 credits)

- BIOL 4534 Ichthyology (4 credits)

**III REQUIRED BIOLOGY ELECTIVES**

SELECT 15-18 SEMESTER CREDIT ELECTIVES FROM BIOLOGY COURSES (EXCEPT 1000-LEVEL BIOL CLASSES AND BIOL 2925) TO ACHIEVE A MINIMUM OF 40 SEMESTER CREDITS IN BIOL COURSES. THESE ELECTIVES CAN ALSO INCLUDE ONE ONE OF THE FOLLOWING OPTIONS FROM OTHER DEPARTMENTS:
a. CHEM 4411 Biochemistry I (3 credits)
b. CHEM 4411 Biochemistry I (3 credits)
and CHEM 4471 Biochemistry Laboratory I (1 credit)
c. ENVR 4400 Environmental Microbiology (3 credits)
d. ENVR 4500 Environmental Toxicology (4 credits)

## Biology, B.S. *major*
## Cellular and Molecular Emphasis (Optional)

Required Credits: 71
Required GPA: 2.25

**I REQUIRED BIOLOGY CORE COURSES**

COMPLETE THE FOLLOWING COURSES:

- BIOL 1211 Introductory Biology I (4 credits)
- BIOL 1212 Introductory Biology II (4 credits)
- BIOL 2360 Genetics (4 credits)
- BIOL 2610 General Ecology (3 credits)

**II REQUIRED CELLULAR AND MOLECULAR EMPHASIS CORE COURSES**

COMPLETE THE FOLLOWING COURSES:

- BIOL 3380 Molecular Genetics: Theory and Practice (4 credits)
- BIOL 3580 Immunology (4 credits)
- BIOL 3590 Cell Biology (4 credits)
- BIOL 3710 Microbiology (4 credits)

**III CAPSTONE PROJECT**

The Biology capstone project, completed in the senior year, provides a culminating experience that integrates the knowledge and skills learned in previous courses and applies them to a scholarly activity.

The capstone project must be designed or chosen by the student in consultation with a faculty mentor or advisor, who must approve the project before work begins. Students should consult with their faculty mentor or advisor before their senior year commences. All capstone projects will include a written and oral component (except for professional/graduate school entrance exams). year, provides a culinating experience that integrates the knowledge and skills learned in previous courses and applies them to a scholarly activity.

Required capstone project courses (4 credits)

- BIOL 4894 Advanced Research Project I (2 credits)
and BIOL 4895 Advanced Research Project II (2 credits)

**IV REQUIRED CELLULAR AND MOLECULAR EMPHASIS ELECTIVES**

SELECT 8 SEMESTER CREDITS FROM THE FOLLOWING COURSES:

- BIOL 3260 Medical Physiology (4 credits)
- BIOL 3300 Introduction to Hematology (4 credits)
- BIOL 3755 Medical Microbiology (3 credits)
- BIOL 4270 Histology (4 credits)
- BIOL 4360 Developmental and Tumor Biology (4 credits)
- CHEM 4411 Biochemistry I (3 credits)
- CHEM 4471 Biochemistry Laboratory I (1 credit)

**V REQUIRED COURSES IN RELATED FIELDS**

A. SELECT 1 OF THE FOLLOWING GROUPS:

*GROUP 1:*

- CHEM 2211 Principles of Chemistry I (4 credits)
- CHEM 2212 Principles of Chemistry II (4 credits)

*GROUP 2:*

- CHEM 1111 General Chemistry I (4 credits)
- CHEM 1112 General Chemistry II (4 credits)

B. SELECT 1 OF THE FOLLOWING COURSES:

- STAT 2610 Applied Statistics (4 credits)
- PSY 3401 Basic Statistics for Research (4 credits)

C. SELECT 1 OF THE FOLLOWING GROUPS:

*GROUP 1:*

- PHYS 2101 Physics I (5 credits)
- PHYS 2102 Physics II (5 credits)

*GROUP 2:*

- PHYS 1101 General Physics I (4 credits)
- PHYS 1102 General Physics II (4 credits)

D. COMPLETE THE FOLLOWING 4 COURSES:

- CHEM 3311 Organic Chemistry I (3 credits)
- CHEM 3312 Organic Chemistry II (3 credits)
- CHEM 3371 Organic Chemistry Laboratory I (1 credit)
- CHEM 3372 Organic Chemistry Laboratory II (1 credit)

## Biology, B.S. *major*
## Medical Sciences Emphasis (Optional)

Required Credits: 71
Required GPA: 2.25

**I REQUIRED BIOLOGY CORE COURSES**

COMPLETE THE FOLLOWING COURSES:

- BIOL 1211 Introductory Biology I (4 credits)
- BIOL 1212 Introductory Biology II (4 credits)
- BIOL 2360 Genetics (4 credits)
- BIOL 2610 General Ecology (3 credits)

**II REQUIRED MEDICAL SCIENCES CORE COURSES**

COMPLETE THE FOLLOWING COURSES:

- BIOL 3250 Comparative Vertebrate Anatomy (4 credits)
- BIOL 3260 Medical Physiology (4 credits)
- BIOL 3580 Immunology (4 credits)
- BIOL 3710 Microbiology (4 credits)

**III CAPSTONE PROJECT**

The Biology capstone project, completed in the senior year, provides a culinating experience that integrates the knowledge and skills learned in previous courses and applies them to a scholarly activity. Examples of capstone projects may include original research projects, internships with state or federal agencies, shadowing experiences with professionals, or successfully passing professional/ graduate school entrance exams. The capstone project must be designed or chosen by the student in consultation with a faculty mentor or advisor, who must approve the project before work begins. Students should consult with their faculty mentor or advisor before their senior year commences. All capstone projects will include a written and oral component (except for professional/ graduate school entrance exams).

**The capstone project may be completed in one of the following ways (0-4 credits):**

1. Students using a professional or graduate entrance exam as their capstone project must register for this course. Students must place in at least the 60th percentile on their exam to successfully complete this course.

- BIOL 4800 Advanced Project Certification (0 credit)

2. Complete BIOL 4894 OR BIOL 4895 (2 credits):

- BIOL 4894 Advanced Research Project I (2 credits)
- BIOL 4895 Advanced Research Project II (2 credits)

3. Complete BIOL 4894 AND BIOL 4895 (2 credits each):

- BIOL 4894 Advanced Research Project I (2 credits)
- BIOL 4895 Advanced Research Project II (2 credits)

**IV REQUIRED MEDICAL SCIENCES ELECTIVES**

SELECT 12 CREDITS OF ELECTIVES FROM THE FOLLOWING:

- BIOL 2110 Human Anatomy and Physiology (5 credits)
- BIOL 3380 Molecular Genetics: Theory and Practice (4 credits)
- BIOL 3590 Cell Biology (4 credits)
- BIOL 4210 Parasitology (4 credits)
- BIOL 4270 Histology (4 credits)
- BIOL 4360 Developmental and Tumor Biology (4 credits)
- CHEM 4411 Biochemistry I (3 credits)
- CHEM 4471 Biochemistry Laboratory I (1 credit)

**V REQUIRED COURSES IN RELATED FIELDS**

A. SELECT 1 OF THE FOLLOWING GROUPS:

*GROUP 1:*

- CHEM 2211 Principles of Chemistry I (4 credits)
- CHEM 2212 Principles of Chemistry II (4 credits)

*GROUP 2:*

- CHEM 1111 General Chemistry I (4 credits)
- CHEM 1112 General Chemistry II (4 credits)

B. SELECT 1 OF THE FOLLOWING COURSES:

- STAT 2610 Applied Statistics (4 credits)
- PSY 3401 Basic Statistics for Research (4 credits)

C. SELECT 1 OF THE FOLLOWING GROUPS:

*GROUP 1:*

- PHYS 2101 Physics I (5 credits)
- PHYS 2102 Physics II (5 credits)

*GROUP 2:*

- PHYS 1101 General Physics I (4 credits)
- PHYS 1102 General Physics II (4 credits)

D. COMPLETE THE FOLLOWING 4 COURSES:

- CHEM 3311 Organic Chemistry I (3 credits)
- CHEM 3312 Organic Chemistry II (3 credits)
- CHEM 3371 Organic Chemistry Laboratory I (1 credit)
- CHEM 3372 Organic Chemistry Laboratory II (1 credit)

## Biology, B.S. *major*

Required Credits: 68
Required GPA: 2.25

**I REQUIRED BIOLOGY CORE COURSES**

COMPLETE THE FOLLOWING COURSES:

- BIOL 1211 Introductory Biology I (4 credits)
- BIOL 1212 Introductory Biology II (4 credits)
- BIOL 2360 Genetics (4 credits)
- BIOL 2610 General Ecology (3 credits)

**II REQUIRED BIOLOGY ELECTIVES**

SUBORGANISMAL
SELECT 1 OF THE FOLLOWING COURSES:

- BIOL 3260 Medical Physiology (4 credits)
- BIOL 3300 Introduction to Hematology (4 credits)
- BIOL 3380 Molecular Genetics: Theory and Practice (4 credits)
- BIOL 3580 Immunology (4 credits)
- BIOL 3590 Cell Biology (4 credits)
- BIOL 3720 Plant Form and Function (4 credits)
- BIOL 3755 Medical Microbiology (3 credits)
- BIOL 4270 Histology (4 credits)
- BIOL 4360 Developmental and Tumor Biology (4 credits)

ORGANISMAL
SELECT 1 OF THE FOLLOWING COURSES:

- BIOL 2110 Human Anatomy and Physiology (5 credits)
- BIOL 3250 Comparative Vertebrate Anatomy (4 credits)
- BIOL 3310 Entomology (4 credits)
- BIOL 3710 Microbiology (4 credits)
- BIOL 3730 Plant Diversity (4 credits)
- BIOL 3830 Aquatic Plants (4 credits)
- BIOL 4210 Parasitology (4 credits)
- BIOL 4510 Ornithology (4 credits)
- BIOL 4520 Mammalogy (4 credits)

- BIOL 4534 Ichthyology (4 credits)

**III CAPSTONE PROJECT**

The Biology capstone project, completed in the senior year, provides a culinating experience that integrates the knowledge and skills learned in previous courses and applies them to a scholarly activity. Examples of capstone projects may include original research projects, internships with state or federal agencies, shadowing experiences with professionals, or successfully passing professional/graduate school entrance exams.

The capstone project must be designed or chosen by the student in consultation with a faculty mentor or advisor, who must approve the project before work begins. Students should consult with their faculty mentor or advisor before their senior year commences. All capstone projects will include a written and oral component (except for professional/graduate school entrance exams).

The capstone project may be completed in one of the following ways (0-4 credits):

1. Students using a professional or graduate entrance exam as their capstone project must register for this course. Students must place in at least the 60th percentile on their exam to successfully complete this course.

- BIOL 4800 Advanced Project Certification (0 credit)

2. Complete BIOL 4894 OR BIOL 4895 (2 credits):

- BIOL 4894 Advanced Research Project I (2 credits)
- BIOL 4895 Advanced Research Project II (2 credits)

3. Complete BIOL 4894 and BIOL 4895 (2 credits each):

- BIOL 4894 Advanced Research Project I (2 credits)
- BIOL 4895 Advanced Research Project II (2 credits)

**IV REQUIRED GENERAL BIOLOGY ELECTIVES**

SELECT ELECTIVES FROM BIOLOGY COURSES (EXCEPT 1000-LEVEL BIOL CLASSES AND BIOL 2925) TO ACHIEVE A MINIMUM OF 40 SEMESTER CREDITS IN BIOL COURSES. THESE ELECTIVES CAN ALSO INCLUDE ONE OF THE FOLLOWING OPTIONS
FROM OTHER DEPARTMENTS

a. CHEM 4411 Biochemistry I (3 credits)
b. CHEM 4411 Biochemistry I (3 credits)
and CHEM 4471 Biochemistry Laboratory I (1 credit)
c. ENVR 4400 Environmental Microbiology (3 credits)
d. ENVR 4500 Environmental Toxicology (4 credits)

**V REQUIRED COURSES IN RELATED FIELDS**

A. SELECT 1 OF THE FOLLOWING GROUPS:

*GROUP 1:*

- CHEM 2211 Principles of Chemistry I (4 credits)
- CHEM 2212 Principles of Chemistry II (4 credits)

*GROUP 2:*

- CHEM 1111 General Chemistry I (4 credits)
- CHEM 1112 General Chemistry II (4 credits)

B. SELECT 1 OF THE FOLLOWING COURSES:

- STAT 2610 Applied Statistics (4 credits)
- PSY 3401 Basic Statistics for Research (4 credits)

C. SELECT 1 OF THE FOLLOWING GROUPS:

*GROUP 1:*

- PHYS 2101 Physics I (5 credits)
- PHYS 2102 Physics II (5 credits)

*GROUP 2:*

- PHYS 1101 General Physics I (4 credits)
- PHYS 1102 General Physics II (4 credits)

D. COMPLETE THE FOLLOWING 4 COURSES:

- CHEM 3311 Organic Chemistry I (3 credits)
- CHEM 3312 Organic Chemistry II (3 credits)
- CHEM 3371 Organic Chemistry Laboratory I (1 credit)
- CHEM 3372 Organic Chemistry Laboratory II (1 credit)

**SUGGESTED SEMESTER SCHEDULE FOR BIOLOGY MAJOR, B.S.**

The following is a list of required Biology Major, B.S. courses arranged by year. This schedule is intended to assist students in planning their courses in an orderly fashion. There is some flexibility in this schedule, but graduation within four years will require close adherence to the specified sequence of courses. Always consult your Biology academic advisor as to the proper courses and sequence of courses needed for graduation.

Freshman
- BIOL 1211 Introductory Biology I (4 credits)
- BIOL 1212 Introductory Biology II (4 credits)
- CHEM 1111 General Chemistry I (4 credits)
  or CHEM 2211 Principles of Chemistry I (4 credits)
- CHEM 1112 General Chemistry II (4 credits)
  or CHEM 2212 Principles of Chemistry II (4 credits)
- Liberal Education requirements
- Consult with your Biology academic advisor

Sophomore
- BIOL 2360 Genetics (4 credits)
- BIOL 2610 General Ecology (3 credits)
- CHEM 3311 Organic Chemistry I (3 credits)
- CHEM 3312 Organic Chemistry II (3 credits)
- CHEM 3371 Organic Chemistry Laboratory I (1 credit)
- CHEM 3372 Organic Chemistry Laboratory II (1 credit)
- PHYS 1101 General Physics I (4 credits)
  or PHYS 2101 Physics I (5 credits)
- PHYS 1102 General Physics II (4 credits)
  or PHYS 2102 Physics II (5 credits)
- Biology degree requirements
- Liberal Education requirements
- Consult with your Biology academic advisor

Junior
- Biology degree requirements
- Liberal Education requirements
- Consult with your Biology academic advisor

Senior
- Complete Biology degree requirements

- Complete Liberal Education requirements
- Consult with your Biology academic advisor

## Medical Laboratory Science, B.S. *major* (4 + 1 Option)

Required Credits: 108
Required GPA: 2.25

**REQUIRED CLINICAL STUDIES 4 + 1 OPTION**

NOTE: After completing the clinical year courses, students will receive a double major: Biology, B.S. and Medical Laboratory Science, B.S. In this option, the student completes a Biology, B.S., major at Bemidji State University, and then applies for admission to the clinical year program through the University of North Dakota or other affiliated institution (a 2.80 GPA overall and in science courses is one requirement for entrance into the clinical year program). This option may be of interest to students considering a pre-professional program such as pre-medicine, pre-veterinary medicine, or other pre-professional area. Students who fail to gain admission to the professional school of their choice will have the option of pursuing a health-related career in Medical Laboratory Science.

**I REQUIRED BIOLOGY COURSES**

- BIOL 1211 Introductory Biology I (4 credits)
- BIOL 1212 Introductory Biology II (4 credits)
- BIOL 2110 Human Anatomy and Physiology (5 credits)
- BIOL 2360 Genetics (4 credits)
- BIOL 2610 General Ecology (3 credits)
- BIOL 3300 Introduction to Hematology (4 credits)
- BIOL 3380 Molecular Genetics: Theory and Practice (4 credits)
- BIOL 3580 Immunology (4 credits)
- BIOL 3710 Microbiology (4 credits)
- BIOL 4210 Parasitology (4 credits)

**II CAPSTONE PROJECT**

II CAPSTONE PROJECT The Biology capstone project, completed in the senior year, provides a culinating experience that integrates the knowledge and skills learned in previous courses and applies them to a scholarly activity. Examples of capstone projects may include original research projects, internships with state or federal agencies, shadowing experiences with professionals, or successfully passing professional/ graduate school entrance exams. The capstone project must be designed or chosen by the student in consultation with a faculty mentor or advisor, who must approve the project before work begins. Students should consult with their faculty mentor or advisor before their senior year commences. All capstone projects will include a written and oral component (except for professional/graduate school entrance exams).

The capstone project may be completed in one of the following ways (0-4 credits):

1. Students using a professional or graduate entrance exam as their capstone project must register for this course. Students must place in at least the 60th percentile on their exam to successfully complete this course.

- BIOL 4800 Advanced Project Certification (0 credit)

2. Complete BIOL 4894 OR BIOL 4895 (2 credits):

- BIOL 4894 Advanced Research Project I (2 credits)
- BIOL 4895 Advanced Research Project II (2 credits)

3. Complete BIOL 4894 and BIOL 4895 (2 credits each):

- BIOL 4894 Advanced Research Project I (2 credits)
- BIOL 4895 Advanced Research Project II (2 credits)

**III REQUIRED COURSES IN RELATED FIELDS**

COMPLETE THE FOLLOWING COURSES:

- CHEM 2211 Principles of Chemistry I (4 credits)
- CHEM 2212 Principles of Chemistry II (4 credits)
- CHEM 3311 Organic Chemistry I (3 credits)
- CHEM 3312 Organic Chemistry II (3 credits)
- CHEM 3371 Organic Chemistry Laboratory I (1 credit)
- CHEM 3372 Organic Chemistry Laboratory II (1 credit)
- CHEM 4411 Biochemistry I (3 credits)
- CHEM 4471 Biochemistry Laboratory I (1 credit)

- PHYS 1101 General Physics I (4 credits) *or* PHYS 2101 Physics I (5 credits)
- PHYS 1102 General Physics II (4 credits) *or* PHYS 2102 Physics II (5 credits)

- STAT 2610 Applied Statistics (4 credits) *or* PSY 3401 Basic Statistics for Research (4 credits)

**IV REQUIRED CLINICAL STUDIES**

Clinical year courses, taken after the senior year beginning with summer term, are taken through entrance into the clinical year program at the University of North Dakota or at affiliated hospitals. NOTE: A clinical year position is not guaranteed. Students must apply for a clinical year position in October of the junior year. Please see advisor regarding the clinical year of study.

## Medical Laboratory Science, B.S. *major* (3 + 1 Option)

In this option, the student completes the required Medical Laboratory Science and Liberal Education courses at Bemidji State University, and then applies for admission to the clinical year program through the University of North Dakota or other affiliated institution (a 2.80 GPA overall and in science courses is one requirement for entrance into the clinical year program).

The Medical Laboratory Science student must consult with the Medical Laboratory Science advisor at the start of the academic program and regularly throughout the course of study. The student must complete the Bemidji State University Liberal Education requirements before the year of clinical study.

Required Credits: 84
Required GPA: 2.25

**I REQUIRED COURSES**

COMPLETE THE FOLLOWING COURSES:

- BIOL 1211 Introductory Biology I (4 credits)
- BIOL 1212 Introductory Biology II (4 credits)
- BIOL 2110 Human Anatomy and Physiology (5 credits)
- BIOL 3300 Introduction to Hematology (4 credits)
- BIOL 3380 Molecular Genetics: Theory and Practice (4 credits)
- BIOL 3580 Immunology (4 credits)
- BIOL 3710 Microbiology (4 credits)
- BIOL 4210 Parasitology (4 credits)
- CHEM 2211 Principles of Chemistry I (4 credits)
- CHEM 2212 Principles of Chemistry II (4 credits)
- CHEM 3311 Organic Chemistry I (3 credits)
- CHEM 3371 Organic Chemistry Laboratory I (1 credit)
- CHEM 4411 Biochemistry I (3 credits)
- CHEM 4471 Biochemistry Laboratory I (1 credit)

SELECT 1 OF THE FOLLOWING COURSES:

- MATH 1170 College Algebra (4 credits)
- MATH 1470 Precalculus (5 credits)

**II REQUIRED CLINICAL STUDIES**

Clinical year courses, taken during the senior year beginning with summer term, are taken through entrance into the clinical year program at the University of North Dakota or at affiliated hospitals.

NOTE: A clinical year position is not guaranteed. Students must apply for a clinical year position in October of the junior year. Please see advisor regarding the clinical year of study.

**SUGGESTED SEMESTER SCHEDULE FOR MEDICAL LABORATORY SCIENCE MAJOR, B.S.**

The following is a list of Medical Laboratory Science courses arranged by year. This suggested schedule is intended to help students plan their courses without course conflicts. Courses that are asterisked(*) are recommended but not required.

Freshman

- BIOL 1211 Introductory Biology I (4 credits)
- BIOL 1212 Introductory Biology II (4 credits)
- BIOL 2110 Human Anatomy and Physiology (5 credits)
- CHEM 2211 Principles of Chemistry I (4 credits)
- CHEM 2212 Principles of Chemistry II (4 credits)
- ENGL 1151 Composition (3 credits)
- ENGL 2152 Argument and Exposition (3 credits)
- MATH 1170 College Algebra (4 credits)
  *or* MATH 1470 Precalculus (5 credits)

Sophomore

- BIOL 2360 Genetics (4 credits)
- BIOL 3380 Molecular Genetics: Theory and Practice (4 credits)
- BIOL 3710 Microbiology (4 credits)
- BIOL 3755 Medical Microbiology (3 credits)
- CHEM 3311 Organic Chemistry I (3 credits)
- *CHEM 3312 Organic Chemistry II (3 credits)
- CHEM 3371 Organic Chemistry Laboratory I (1 credit)
- *CHEM 3372 Organic Chemistry Laboratory II (1 credit)

Junior

- *BIOL 3300 Introduction to Hematology (4 credits)
- BIOL 3580 Immunology (4 credits)
- BIOL 4210 Parasitology (4 credits)
- CHEM 4411 Biochemistry I (3 credits)
- CHEM 4471 Biochemistry Laboratory I (1 credit)
- STAT 2610 Applied Statistics (4 credits)
  *or* PSY 3401 Basic Statistics for Research (4 credits)

Senior

- Clinical year courses

## Science Education, B.S. *major*
## Life Science Specialty (Teacher Licensure)

Required Credits: 83
Required GPA: 2.50

**Core Courses for Science Teaching in Grades 5-8**

COMPLETE THE FOLLOWING COURSES:

- BIOL 1211 Introductory Biology I (4 credits)
  *or* BIOL 1110 Human Biology (4 credits)
- BIOL 1212 Introductory Biology II (4 credits)
  *or* BIOL 1120 General Biology: Evolution And Ecology (3 credits)
- CHEM 2211 Principles of Chemistry I (4 credits)
  *or* CHEM 1111 General Chemistry I (4 credits)
- CHEM 2212 Principles of Chemistry II (4 credits)
  *or* CHEM 1112 General Chemistry II (4 credits)
- GEOL 1110 Physical Geology (4 credits)
- SCI 3100 Integrative Science for Teachers (4 credits)
- SCI 3450 Science Methods For Grades 5-8 (4 credits)
  *or* ED 3410 Middle School Science Methods (4 credits)

**REQUIRED PROFESSIONAL EDUCATION COURSES**

COMPLETE THE FOLLOWING COURSES:

- ED 3100 Introduction to the Foundations of Public School Education (3 credits)
- ED 3110 Educational Psychology (3 credits)
- ED 3140 Human Relations In Education (3 credits)
- ED 3350 Pedagogy: Planning for Instruction (3 credits)
- ED 3780 Adaptation and Management: Designing the Learning Environment (3 credits)
- ED 4737 Content Area Reading (3 credits)
- ED 4799 The Professional Teacher (1 credit)
- HLTH 3400 Health and Drugs in Society (2 credits)

Complete 12 credits of student teaching:

- ED 4830 Student Teaching - Secondary (1-12 credits)

**LIFE SCIENCE SPECIALTY**

A. REQUIRED BIOLOGY COURSES
COMPLETE THE FOLLOWING COURSES:

- BIOL 2360 Genetics (4 credits)
- BIOL 2610 General Ecology (3 credits)
- BIOL 2620 Field and Laboratory Projects in Ecological Research (2 credits)
- BIOL 3710 Microbiology (4 credits)

- BIOL 4620 Evolution (3 credits)
- BIOL 3720 Plant Form and Function (4 credits)
  *or* BIOL 3830 Aquatic Plants (4 credits)

B. REQUIRED BIOLOGY ELECTIVE
SELECT 1 OF THE FOLLOWING COURSES:

- BIOL 3150 Animal Behavior (3 credits)
- BIOL 3310 Entomology (4 credits)
- BIOL 4510 Ornithology (4 credits)
- BIOL 4520 Mammalogy (4 credits)
- BIOL 4534 Ichthyology (4 credits)

**SUGGESTED SEMESTER SCHEDULE FOR LIFE SCIENCE SPECIALTY, SCIENCE EDUCATION MAJOR, B.S. (TEACHER LICENSURE)**

The following is a list of required Science (Life Science) Major, B.S. courses arranged by year. This schedule is intended to assist students in planning their courses. There is some flexibility in this schedule, but graduation within four years will require close adherence to the specified sequence of courses. Always consult your Biology academic advisor as to the proper courses and sequence of courses needed for graduation. It is possible, in some circumstances, that courses in a student's Liberal Education program may be used in his or her academic major.

Freshman

- BIOL 1211 Introductory Biology I (4 credits)
- BIOL 1212 Introductory Biology II (4 credits)
- CHEM 2211 Principles of Chemistry I (4 credits)
- Liberal Education requirements

Sophomore

- BIOL 2360 Genetics (4 credits)
- BIOL 2610 General Ecology (3 credits)
- BIOL 2620 Field and Laboratory Projects in Ecological Research (2 credits)
- BIOL 3720 Plant Form and Function (4 credits)
- GEOL 1110 Physical Geology (4 credits)
- PHYS 1101 General Physics I (4 credits)
  *or* PHYS 2101 Physics I (5 credits)
- Consider starting Professional Education sequence
- Liberal Education requirements

Junior

- BIOL 3710 Microbiology (4 credits)
- SCI 3100 Integrative Science for Teachers (4 credits)
- SCI 3450 Science Methods For Grades 5-8 (4 credits)
- Other Professional Education requirements
- Liberal Education requirements

Senior

- Biology Elective (BIOL 3150, 3310, 3510, 4520, or 4534)
- BIOL 4620 Evolution (3 credits)
- Complete Professional Education requirements, including one semester of student teaching
- Complete liberal education requirements

## Wildlife Biology, B.S. *major*

The Wildlife Biology major is designed for students preparing for careers with natural resources agencies or for graduate school in wildlife biology.

With careful selection of liberal education courses, graduates can fulfill the educational requirements for certification as an Associate Wildlife Biologist by The Wildlife Society.

Required Credits: 72
Required GPA: 2.25

**I REQUIRED BIOLOGY CORE COURSES**

COMPLETE THE FOLLOWING COURSES:

- BIOL 1211 Introductory Biology I (4 credits)
- BIOL 1212 Introductory Biology II (4 credits)
- BIOL 2610 General Ecology (3 credits)

**II REQUIRED WILDLIFE BIOLOGY CORE COURSES**

COMPLETE THE FOLLOWING COURSES:

- BIOL 3610 Principles of Wildlife Management (3 credits)
- BIOL 3880 Wildlife Management Techniques (4 credits)
- BIOL 4510 Ornithology (4 credits)
- BIOL 4520 Mammalogy (4 credits)
- GEOG 3231 Introduction to Geographic Information Systems (3 credits)
- GEOG 3232 Intermediate Geographic Information Systems (3 credits)
- BIOL 3400 Fish & Wildlife Law and Administration (3 credits)
  *or* ENVR 4210 Environmental Law and Policy (3 credits)
- BIOL 2360 Genetics (4 credits)
  *or* BIOL 3310 Entomology (4 credits)
  *or* BIOL 4534 Ichthyology (4 credits)
  *or* BIOL 4210 Parasitology (4 credits)
- BIOL 3630 Conservation Biology (3 credits)
  *or* GEOG 3630 Conservation Biology (3 credits)
  *or* BIOL 4330 Upland Wildlife Management (3 credits)
- BIOL 2339 Ethics of Fish and Wildlife Management (3 credits)
  *or* BIOL 3420 Human Dimensions of Wildlife and Fisheries Management (3 credits)
  *or* GEOG 3570 Public Lands Planning (3 credits)

SELECT TWO OF THE FOLLOWING, WITH AT LEAST ONE BEING BIOL 3730 OR BIOL 3830:

- BIOL 3730 Plant Diversity (4 credits)
- BIOL 3830 Aquatic Plants (4 credits)
- BIOL 3720 Plant Form and Function (4 credits)
- BIOL 4623 Forest Ecology (4 credits)

**III CAPSTONE PROJECT**

The Biology capstone project, completed in the senior year, provides a culminating experience that integrates the knowledge and skills learned in previous courses and applies them to a scholarly activity. Examples of capstone projects may include original research projects, internships with state or federal agencies, shadowing experiences with professionals, or successfully passing professional/ graduate school entrance exams. The capstone project must be designed or chosen by the student in
consultation with a faculty mentor or advisor, who must approve the project before work begins. Students should consult with their faculty mentor or advisor before their senior year commences. All capstone projects will include a written and oral component (except for professional/graduate school entrance exams).

The capstone project may be completed in one of the following ways (0-4 credits):

1. Students using a professional or graduate entrance exam as their capstone project must register for this course. Students must place in at least the 60th percentile on their exam to successfully complete this course.

- BIOL 4800 Advanced Project Certification (0 credit)

2. Complete BIOL 4894 OR BIOL 4895 (2 credits):

- BIOL 4894 Advanced Research Project I (2 credits)
- BIOL 4895 Advanced Research Project II (2 credits)

3. Complete BIOL 4894 and BIOL 4895 (2 credits each):

- BIOL 4894 Advanced Research Project I (2 credits)
- BIOL 4895 Advanced Research Project II (2 credits)

**IV REQUIRED COURSES IN RELATED FIELDS**

COMPLETE THE FOLLOWING COURSES:

- CHEM 1111 General Chemistry I (4 credits)
  *or* CHEM 2211 Principles of Chemistry I (4 credits)
- CHEM 1112 General Chemistry II (4 credits)
  *or* CHEM 2212 Principles of Chemistry II (4 credits)

SELECT 1 OF THE FOLLOWING COURSES:

- STAT 2610 Applied Statistics (4 credits)
- PSY 3401 Basic Statistics for Research (4 credits)

SELECT 1 OF THE FOLLOWING COURSES:

- PHYS 1101 General Physics I (4 credits)
- PHYS 2101 Physics I (5 credits)
- GEOL 1110 Physical Geology (4 credits)
- BIOL 3120 Soils (4 credits)
- GEOL 3120 Soils (4 credits)

SELECT 1 OF THE FOLLOWING COURSES:

- MATH 2471 Calculus I (5 credits)
- ENVR 4220 Sampling and Analysis (4 credits)
- GEOG 4265 Spatial Analysis (3 credits)
- PSY 4403 Advanced Statistics and Research Design (4 credits)

**SUGGESTED SEMESTER SCHEDULE FOR WILDLIFE BIOLOGY MAJOR, B.S.**

Freshman

- BIOL 1211 Introductory Biology I (4 credits)
- BIOL 1212 Introductory Biology II (4 credits)
- CHEM 1111 General Chemistry I (4 credits)
  *or* CHEM 2211 Principles of Chemistry I (4 credits)
- CHEM 1112 General Chemistry II (4 credits)
  *or* CHEM 2212 Principles of Chemistry II (4 credits)
- Liberal Education requirements

Sophomore

- BIOL 2610 General Ecology (3 credits)
- STAT 2610 Applied Statistics (4 credits)
  *or* PSY 3401 Basic Statistics for Research (4 credits)
- Wildlife Biology degree requirements
- Liberal Education requirements
- Consult with your academic advisor

Junior

- Wildlife Biology degree requirements
- Complete Liberal Education requirements
- Consult with your Biology acadmic advisor

Senior

- Capstone Project
- Complete Wildlife Biology degree requirements
- Consult with your Biology academic advisor

## Biology *minor*

Required Credits: 24
Required GPA: 2.00

**I REQUIRED BIOLOGY CORE COURSES**

COMPLETE THE FOLLOWING COURSES:

- BIOL 1211 Introductory Biology I (4 credits)
- BIOL 1212 Introductory Biology II (4 credits)
- BIOL 2360 Genetics (4 credits)
- BIOL 2610 General Ecology (3 credits)

**II REQUIRED BIOLOGY ELECTIVES**

Select 9 credits from the following areas with at least 1 course in each area.

SUBORGANISMAL
SELECT 1 OF THE FOLLOWING COURSES:

- BIOL 3260 Medical Physiology (4 credits)
- BIOL 3300 Introduction to Hematology (4 credits)
- BIOL 3380 Molecular Genetics: Theory and Practice (4 credits)
- BIOL 3580 Immunology (4 credits)
- BIOL 3590 Cell Biology (4 credits)
- BIOL 3720 Plant Form and Function (4 credits)
- BIOL 3755 Medical Microbiology (3 credits)
- BIOL 4270 Histology (4 credits)

ORGANISMAL
SELECT 1 OF THE FOLLOWING COURSES:

- BIOL 2110 Human Anatomy and Physiology (5 credits)
- BIOL 4200 Freshwater Invertebrates (4 credits)
- BIOL 3250 Comparative Vertebrate Anatomy (4 credits)
- BIOL 3310 Entomology (4 credits)
- BIOL 3710 Microbiology (4 credits)
- BIOL 3730 Plant Diversity (4 credits)
- BIOL 3830 Aquatic Plants (4 credits)
- BIOL 4210 Parasitology (4 credits)
- BIOL 4510 Ornithology (4 credits)
- BIOL 4520 Mammalogy (4 credits)
- BIOL 4534 Ichthyology (4 credits)

## Wetlands Ecology *minor*

Required Credits: 25
Required GPA: 2.00

**I REQUIRED BIOLOGY CORE COURSES**

COMPLETE THE FOLLOWING COURSES:

- BIOL 1211 Introductory Biology I (4 credits)
- BIOL 1212 Introductory Biology II (4 credits)

**II REQUIRED BIOLOGY AND ENVIRONMENTAL STUDIES ADVANCED COURSES**

COMPLETE THE FOLLOWING COURSES:

- BIOL 2610 General Ecology (3 credits)
- BIOL 3830 Aquatic Plants (4 credits)
  *or* BIOL 3730 Plant Diversity (4 credits)
- BIOL 3840 Wetlands Ecology (3 credits)
  *or* ENVR 3840 Wetlands Ecology (3 credits)
- BIOL 3844 Wetlands Ecology Lab (1 credit)
- BIOL 4030 Wetland Delineation and Classification (3 credits)
- BIOL 3400 Fish & Wildlife Law and Administration (3 credits)
  *or* ENVR 4210 Environmental Law and Policy (3 credits)

## Biology Courses

**BIOL 1110 Human Biology (4 credits)**
General introduction to biology, focusing on humans, including topics on cell biology, genetics, molecular biology, form and function of organ systems, and the interaction between humans and their environment. Intended for nonbiology majors. Lecture and laboratory. Liberal Education Goal Area 3 (LC).

**BIOL 1120 General Biology: Evolution And Ecology (3 credits)**
A general introduction to biology with an emphasis on evolution, ecology, and the diversity of life. Intended for nonbiology majors. Includes laboratory simulations and field exercises. Liberal Education Goal Area 3 and 10.

**BIOL 1150 Aquatic Systems (3 credits)**
An introduction to the physical characteristics, chemistry, and biology of lakes, streams, and rivers. Includes information on human impacts and alteration of these natural systems. Includes laboratory simulations and field exercises. Liberal Education Goal Area 3.

**BIOL 1211 Introductory Biology I (4 credits)**
An introduction to the structure and function of living systems, with an emphasis on basic mechanisms and concepts in biochemistry and in cellular and molecular biology. Intended for biology majors and minors, preprofessional students, and open to any student wishing to fulfill their Liberal Education requirement. Lecture and laboratory. BIOL 1211 and BIOL 1212 must be taken in sequence. Liberal Education Goal Area 3 (LC).

**BIOL 1212 Introductory Biology II (4 credits)**
An introduction to living organisms, with an emphasis on the basic mechanisms and concepts in organismal biology, ecology, and evolutionary biology. Topics include taxonomy and classification of the major groups of plants and animals, structure and function, development, and behavior. Intended for biology majors and minors, preprofessional students, and open to any student wishing to fulfill their Liberal Education requirement. Lecture and laboratory. Prerequisite: BIOL 1211 or consent of instructor. Liberal Education Goal Area 3 (LC).

**BIOL 1300 Medical Terminology (2 credits)**
A study of anatomical and medical terminology by examining word roots, prefixes, and suffixes. Designed to assist pre-professional and allied health students who desire to increase their usage and understanding of medical terminology. This course does not satisfy any Biology major or minor degree requirements.

**BIOL 2110 Human Anatomy and Physiology (5 credits)**
The structure, function, and development of the human body. Lecture and laboratory. Prerequisite: BIOL 1110 or BIOL 1211.

**BIOL 2339 Ethics of Fish and Wildlife Management (3 credits)**
This class is designed to explore the ethical aspects of various fish and wildlife management related topics in order to better understand how ethical viewpoints at both the social and political levels have influenced natural resource policy throughout history at the local, regional, and global scales. Liberal Education Goal Area 9.

**BIOL 2360 Genetics (4 credits)**
Fundamental principles of heredity in plants, animals, and microorganisms. Includes both classical and molecular genetic approaches to studying organisms. Prerequisites: BIOL 1211 and BIOL 1212.

**BIOL 2610 General Ecology (3 credits)**
Introduction to the interrelationships of organisms and their environments, emphasizing the historic development of fundamental principles at the levels of individual, population, community, and ecosystem through examination of theoretical and empirical findings. Prerequisites: BIOL 1110, 1120 or BIOL 1211, 1212 or consent of instructor.

**BIOL 2620 Field and Laboratory Projects in Ecological Research (2 credits)**
Introduction to the process of research in ecological science. The first part of the class consists of activities and lectures pertaining to basic issues of study design and execution. For the remainder of the class, students will design, carry out, and report on their own ecological study. Prerequisite or Corequisite BIOL 2610.

**BIOL 2925 People & The Environment: Biological Perspectives on the Environment (3 credits)**
Discussion and evaluation of current environmental biology topics, including biodiversity, ecosystems, biological resources, and human impact on the environment. This course fulfills Liberal Education requirements only and does not satisfy and Biology major or minor degree requirements. Liberal Education Goal Area 10.

**BIOL 3120 Soils (4 credits)**
Introduction to principles of soil genesis, classification, physical and chemical properties, and biological significance. Lecture and laboratory. Prerequisites: BIOL 1211 and BIOL 1212 or consent of instructor.

**BIOL 3150 Animal Behavior (3 credits)**
Introduction to the study of the diversity, physiology, ecological context, and evolutionary development of behavior of invertebrate and vertebrate animals. Prerequisite: BIOL 1211 and BIOL 1212, or PSY 1100.

**BIOL 3250 Comparative Vertebrate Anatomy (4 credits)**
Classification, adaptation, and evolutionary history of vertebrates; anatomy and functional morphology of vertebrates, including humans. Lecture and Laboratory. Prerequisites: BIOL 1211 and BIOL 1212.

**BIOL 3260 Medical Physiology (4 credits)**
Physiological and pathophysiological principles and control mechanisms of organ systems within humans. Lecture and laboratory. Prerequisites: BIOL 1211, BIOL 1212, BIOL 3250, and CHEM 3312.

**BIOL 3300 Introduction to Hematology (4 credits)**
Introduction to the principles of blood cell formation, function, and associated disorders. Lecture and Laboratory. Prerequisites: BIOL 1211, CHEM 2211, and CHEM 2212. BIOL 2360 or BIOL 3380 is recommended.

**BIOL 3310 Entomology (4 credits)**
The biology of insects, their natural history, morphology, classification, and economic importance. Lecture, laboratory, and field study. Prerequisites: BIOL 1211 and BIOL 1212, or consent of instructor.

**BIOL 3361 Limnology I (4 credits)**
Introduction to the biology, chemistry, geology, and physics of lakes and streams. Lecture, field, and laboratory work. Prerequisites: BIOL 1211, BIOL 1212, BIOL 2610, CHEM 2211, CHEM 2212, and PHYS 1101 (concurrent enrollment possible), or consent of instructor.

**BIOL 3362 Limnology II (4 credits)**
The second course of the Limnology sequence concentrating on the organisms commonly found in aquatic systems. Topics include physical, chemical, and biotic constraints of aquatic biota with an emphasis on ecological relationships within and between groups. Lecture and laboratory. Prerequisite: BIOL 3361.

**BIOL 3380 Molecular Genetics: Theory and Practice (4 credits)**
Study of the structure, replication, repair, expression, regulation, and change of genetic material. Introduction to theory and procedures by which recombinant DNA molecules are formed, cloned, and expressed. Lecture and laboratory. Prerequisites: BIOL 1211 and BIOL 1212. Might not be offered every year.

**BIOL 3400 Fish & Wildlife Law and Administration (3 credits)**
This course is for majors in natural resources, biology, and related fields. The lectures throughout the course will cover the history, philosophy, evolution, and application of these laws in the management of fish, wildlife, and other renewable resources for the benefit of the public. The course concludes with contemporary economic, administrative and political aspects of fish and wildlife management. The course fulfills some certification requirements of The Wildlife Society and the American Fisheries Society and is recommended for students planning graduate study or employment in natural resources management. Prerequisite: BIOL 2610.

**BIOL 3420 Human Dimensions of Wildlife and Fisheries Management (3 credits)**
This course is for majors in natural resources, biology, and related fields. The lectures throughout the course will cover the history, philosophy, evolution, and application of human dimensions in wildlife and fisheries management. The course fulfills some certification requirements of The Wildlife Society and the American Fisheries Society and is recommended for students planning graduate study or employment in natural resources management. Prerequisite: BIOL 2610.

**BIOL 3554 Readings in Aquatic Biology (1 credit)**
In-depth review and focused group discussion of a selected topic or topics. Emphasis is on learning to access and synthesize relevant literature. Active participation in discussions and working groups is required. Prerequisite: Junior status in Aquatic Biology.

**BIOL 3580 Immunology (4 credits)**
The study of disease fighting mechanisms of the body. Lecture and laboratory. Prerequisites: BIOL 2360 or BIOL 3380, and one year of chemistry.

**BIOL 3590 Cell Biology (4 credits)**
Microscopic anatomy and physiological mechanisms of plant and animal cells. Gene control of cellular metabolism, mechanism of energy utilization in cells and pathways of synthesis of molecules. Lecture and laboratory. Prerequisites: BIOL 2360 or BIOL 3380; and CHEM 2211, CHEM 2212.

**BIOL 3610 Principles of Wildlife Management (3 credits)**
Introduction to the field of wildlife management, including the biological principles important to the understanding of wildlife populations and the management strategies implemented by natural resource managers. Prerequisites: BIOL 1211, BIOL 1212, and BIOL 2610. Might not be offered every year.

**BIOL 3630 Conservation Biology (3 credits)**
Principles and theories of conservation biology. Topics include biodiversity, threats to biodiversity, extinctions, management of threatened and endangered species, managing habitats for conservation, and methods to mitigate biodiversity loss. Prerequisites: BIOL 1211 and BIOL 1212, or consent of instructor. Also GEOG 3630.

**BIOL 3710 Microbiology (4 credits)**
Structure, classification, and physiology of bacteria and related microorganisms. Lecture and laboratory. Prerequisites or Corequisites: One year introductory biology and one year introductory chemistry or consent of instructor.

**BIOL 3720 Plant Form and Function (4 credits)**
Structure, function, and development of vascular plants. Interrelationships between anatomical structures and physiological processes and how plants cope with environmental challenges. Lecture and laboratory. Prerequisites: BIOL 1211, 1212 and one year of college chemistry or consent of instructor.

**BIOL 3723 Ecosystem Ecology (3 credits)**
Fundamentals of the study of ecosystems, with emphasis on the integration of abiotic and biotic components in the development of ecosystem processes. Comparisons and interactions between terrestrial, wetland, aquatic, and atmospheric systems across the major biomes. Prerequisite: BIOL 2610.

**BIOL 3730 Plant Diversity (4 credits)**
Classification, phylogeny, collection, field identification, and uses of wild plants. Lecture and laboratory. Prerequisites: BIOL 1211 and BIOL 1212 or consent of instructor.

**BIOL 3755 Medical Microbiology (3 credits)**
Introduction to pathogenic microorganisms, the interaction of pathogens and the immune system, transmission of infections, and methods of controlling infections. The laboratory portion of the class covers aseptic technique, pure culture techniques, microscopy, and diagnostic microbiology. This course is intended primarily for Nursing and Clinical Laboratory Science majors. Prerequisites: (BIOL 1211 or BIOL 1110) and (CHEM 1110 or CHEM 1111 or CHEM 2211).

**BIOL 3830 Aquatic Plants (4 credits)**
Survey of the morphology, physiology, taxonomy, systematics, and ecology of algae and aquatic vascular plants. Lecture, laboratory, and field study. Prerequisites: BIOL 1211 and BIOL 1212.

**BIOL 3840 Wetlands Ecology (3 credits)**
Survey course develops a basic understanding of the terminology, classification, ecology, values, and conservation of wetlands. Covers wetland systems from around the world, with emphasis on wetlands in North America. Prerequisites: BIOL 1211 and 1212.

**BIOL 3844 Wetlands Ecology Lab (1 credit)**
Laboratory course to supplement BIOL/ENVR 3840 Wetlands Ecology. Intended to strengthen a basic understanding of the terminology, classification, ecology, values, and conservation of wetlands. Prerequisite or Corequisite: BIOL/ENVR 3840 or consent of instructor.

**BIOL 3850 Marine Biology (3 credits)**
Lecture course introducing major concepts and theories. Includes physical and chemical components of the oceans, with special interest paid to the major groups of organisms living in marine systems. Emphasis on the different types of marine systems (coral reefs, mangroves, open water, etc.). Prerequisites: BIOL 1211 and 1212. Might not be offered every year.

**BIOL 3880 Wildlife Management Techniques (4 credits)**
This course emphasizes application of ecological principles, knowledge, and practical field skills to data collection used in the management of wildlife resources and their habitats. Use of literature, development of basic field and laboratory skills, and application of management and research principles are integral. Designed for upper level students who have met prerequisites, and graduate students, who are preparing for professional careers in wildlife conservation, natural sciences, and related areas of natural resources management. The course helps fulfill The Wildlife Society professional certification requirements. Prerequisite: BIOL 3610.

**BIOL 4030 Wetland Delineation and Classification (3 credits)**
This training course for the identification, delineation, and classification of wetlands covers the major types of wetlands and their general delineation procedures. Hydrological, soil, and vegetation characteristics will be used to identify and map wetland boundaries. Focuses on current regulations as established by the US Army Corps of Engineers' 1987 Wetland Delineation Manual with additional regulations specific for the state of Minnesota. Satisfies the requirements for basic delineation training as specified by the Corps of Engineers and certification programs in many states. Prerequisites: BIOL 1211, 1212, or consent of instructor.

**BIOL 4031 Advanced Wetland Delineation (2 credits)**
Training course intended to develop an advanced understanding of wetland delineation and regulation. Includes review of hydrological, physiochemical, and vegetation characteristics used to identify wetland boundaries, as well as specifics of wetland regulation, comprehensive wetland delineations, and post-field reporting. Covers procedures and regulations used by federal and state agencies, with an emphasis on those in Minnesota. Prerequisite: BIOL 4030 or consent of instructor.

**BIOL 4200 Freshwater Invertebrates (4 credits)**
Morphology and functional roles of representative freshwater invertebrates and their ecological interrelationships. Lecture and laboratory. Prerequisite: BIOL 1211, BIOL 1212, BIOL 3361, BIOL 3362, and junior status, or consent of instructor.

**BIOL 4210 Parasitology (4 credits)**
The biology of animal parasites, their identification, biochemistry, immunology, and epidemiology. Lecture and laboratory. Prerequisites: BIOL 1211, 1212, or consent of instructor.

**BIOL 4270 Histology (4 credits)**
Microscopic anatomy of vertebrate tissues and organs with functional correlations. Lecture and laboratory. Prerequisites: BIOL 1211 and BIOL 1212, BIOL 3250, and BIOL 3260. Might not be offered every year.

**BIOL 4330 Upland Wildlife Management (3 credits)**
An advanced pre-professional course for majors in natural resources, biology, and related fields. Lectures cover the history, philosophy, evolution, and application of wildlife management with a focus on upland wildlife as a renewable, sustainable natural resource. The course fulfills some professional certification requirements of The Wildlife Society and is recommended for students planning graduate study or employment in natural resources management. Prerequisite: BIOL 3610.

**BIOL 4360 Developmental and Tumor Biology (4 credits)**
Investigation of the mechanisms leading to the development of multicellular animal organisms from a fertilized egg. In contrast, the course also investigates how cells within a multicellular organism can become misregulated, leading to cancer. Lecture and lab. Prerequisites: BIOL 1211 and BIOL 1212. BIOL 2360 or BIOL 3380 is highly recommended. Might not be offered every year.

**BIOL 4510 Ornithology (4 credits)**
Morphology, ecology, behavior, classification, distribution, and evolution of birds. Lecture, laboratory, and field study (early morning field trips and one or two all-day field trips). Prerequisites: BIOL 1211 and BIOL 1212.

**BIOL 4520 Mammalogy (4 credits)**
Morphology, ecology, behavior, classification, distribution, and evolution of mammals. Lecture and laboratory. Collection or paper by each student. Prerequisites: BIOL 1211 and BIOL 1212.

**BIOL 4534 Ichthyology (4 credits)**
An overview of morphology, physiology, behavior, taxonomy, systematics, and ecology of fishes. This course emphasizes the evolution of ecological adaptations and the origin and conservation of biodiversity. Lecture, laboratory, and field work. Prerequisites: BIOL 1211 and BIOL 1212.

**BIOL 4545 Fisheries Management (4 credits)**
Theory and methods of fisheries management with an emphasis on quantitative methods and ecosystem management. Lecture and extensive field and laboratory work. Prerequisites: BIOL 1211, BIOL 1212, BIOL 3362, and STAT 2610. BIOL 4534 strongly recommended.

**BIOL 4620 Evolution (3 credits)**
Patterns and processes of biological evolution. Topics include phylogenies, speciation, extinctions, biogeography, adaptations, sexual selection, and behavior, with an emphasis on vertebrates and invertebrates. Prerequisite: BIOL 2360.

**BIOL 4623 Forest Ecology (4 credits)**
Fundamentals of forest ecology, including study of tree growth, tree demography, forest community dynamics, and ecosystem processes. Students also learn to identify forest trees native to the region and basic techniques of forest stand description. Prerequisite: BIOL 2610 or consent of instructor. Might not be offered every year.

**BIOL 4800 Advanced Project Certification (0 credit)**
A course designed to document a students successful completion of a professional or graduate school entrance exam, with a student placing in at least the 60th percentile. This course is one of the options for completing the capstone project requirement in Biology.

**BIOL 4894 Advanced Research Project I (2 credits)**
This course provides a culminating experience that integrates the knowledge and skills learned in previous courses and applies them to a scholarly activity. Examples of an advanced research project may include an original research project, internship, or shadowing experience with a professional. Prerequisite: Junior status and consent of instructor.

**BIOL 4895 Advanced Research Project II (2 credits)**
This course is a continuation of BIOL 4894 for students who undertake a year-long research project. The course provides a culminating experience that integrates the knowledge and skills learned in previous courses and applies them to a scholarly activity. Examples of an advanced research project may include an original research project, internship, or shadowing experience with a professional. Prerequisite: Junior status and consent of instructor.

## All-University Courses

The course numbers listed below, not always included in the semester class schedule, may be registered for by consent of the advisor, instructor, or department chair, or may be assigned by the department when warranted. Individual registration requires previous arrangement by the student and the completion of any required form or planning outline as well as any prerequisites.

1910, 2910, 3910, 4910 DIRECTED INDEPENDENT STUDY
1920, 2920, 3920, 4920 DIRECTED GROUP STUDY
1930, 2930, 3930, 4930 EXPERIMENTAL COURSE
1940, 2940, 3940, 4940 IN-SERVICE COURSE
1950, 2950, 3950, 4950 WORKSHOP, INSTITUTE, TOUR
1960, 2960, 3960, 4960 SPECIAL PURPOSE INSTRUCTION
1970, 2970, 3970, 4970 INTERNSHIP
1980, 2980, 3980, 4980 RESEARCH
1990, 2990, 3990, 4990 THESIS

# Business Administration

The Business Administration program offers study in finance, management, marketing, entrepreneurship/small business management, international business, management information systems, computer forensics, computer information systems, fraud examination, and general business. The focus is undergraduate education in this student-oriented learning environment. Hands-on learning, full student participation, and technology are integrated throughout the Business Administration program. Neither narrow nor vocational in its approach, the course work includes critical and logical thinking, communication skills, creative problem solving, innovation, decision making, and theoretical, technical, and professional skills.

Business policies and practices both reflect and help form the ethical, global/international, and moral foundations of a society; business both draws upon and contributes to knowledge and understanding of the world. In recognition of this, the Department of Business Administration educates its students to be discerning, responsible citizens of both the business community and our democratic society.

The theoretical aspects of business are grounded in social sciences such as economics, political science, psychology, sociology, and anthropology. The Business Administration curriculum is therefore broadly conceived. It prepares students for entry into the business world or for graduate study, and offers them a liberal education that will contribute to their intellectual, personal, and ethical growth.

**Programs**

- Business Administration, B.S. (Management Emphasis)*major*
- Business Administration, B.S. (Finance Emphasis)*major*
- Business Administration, B.S. (Entrepreneurship Emphasis)*major*
- Business Administration, B.S. (Marketing Emphasis)*major*
- Computer Information Systems, B.S. *major*
- Marketing Communication, B.S. *major*
- Business Administration *minor*
- Management Information Systems *minor*

**Career Directions**

Account Representative
Administrative Services Manager
Administrator
Advertising
Advertising Executive
Advertising Manager
Agent Manager
Applications Development
Applications Support
Appraiser & Assessor
Bank Examiner
Bank Officer
Budget Analyst
Business Analyst
Business Director
Buying Agent
Claims Adjusters
College & University Administrator
Commodities Salespeople
Communications Directors
Compliance Officer & Inspector
Computer Forensics
Computer Operations Manager
Computer Programmer
Computer Securities Specialist
Computer Support Specialists
Computer Systems Analysts
Construction Managers
Corporate Trainer
Cost Estimator
Credit Analyst
Data Communications Analysts
Database Administrator
Demonstrators & Promoters
Doctoral Program - Graduate Study
E-Commerce Development
E-Commerce Support
E-Commerce Web Programmer
Education Administrators
Educator
Engineering Managers
Entrepreneur
Executives
Finance Director
Financial Analyst
Financial Counselor
Financial Information Specialist
Financial Manager
Financial Planner
Food Service Manager
Gaming Services
Health Services Administrators
Hotel & Motel Managers
Human Resource Manager
Human Resources Training
Industrial Production Managers
Information Center Specialist
Information Director
Information Systems Analyst

Information Systems Manager
Information Technology Auditors
Information Technology Consultant
Insurance Adjuster
Insurance Agents
Insurance Examiner
Insurance Investigators
Insurance Underwriters
Internet Website Developer
IRS Agents
Knowledge Engineer
Labor Relations Specialists
Loan Analyst
Loan Counselor
Loan Officers
Lodging Managers
Management Analyst
Management Consultant
Manager
Manufacturing
Marketing Executive
Marketing Manager
Master's Program - Graduate Study
Media Relations
Medical and Health Services Manager
Natural Sciences Manager
Network Specialist
Operations Manager
Personnel & Training Managers
Postmaster & Mail Superintendent
Product Support
Production / Operations Supervisor
Production Manager
Project Leader
Promotions Director
Promotions Management
Property & Real Estate Managers
Proprietors
Public Relations
Public Speaking
Purchasing Agents
Purchasing Managers
Real Estate Agents
Resort Managers
Restaurant Manager
Sales Engineers
Sales Executive
Sales Manager
Sales Representative
Sales Worker Supervisors
Securities Salespeople
Small Business Management
Software Engineer
Storage & Transportation Manager
Tax Examiners
Telecommunications Specialist
Web Site Developer
Wholesalers
Also: Graduate Study

**Preparation**

*Recommended High School Courses*

Mathematics

Computing

Speech

Writing

Business Administration

## Business Administration, B.S. *major*
## Management Emphasis

Students majoring in Business Administration are advised to complete at least one course in Psychology, Sociology, or Anthropology as part of their liberal education requirements.

Required Credits: 65
Required GPA: 2.25

**I REQUIRED BASIC CORE COURSES**

C0MPLETE THE FOLLOWING COURSES:

- ACCT 1101 Principles of Accounting I (3 credits)
- ACCT 1102 Principles of Accounting II (3 credits)
- BUAD 2220 Legal Environment (3 credits)
- BUAD 2231 Business Statistics I (3 credits)
- BUAD 2280 Computer Business Applications (3 credits)
- BUAD 3223 Operations Management (3 credits)
- BUAD 3351 Management (3 credits)
- BUAD 3361 Marketing (3 credits)
- BUAD 3381 Management Information Systems (3 credits)
- BUAD 3771 Financial Management (3 credits)
- BUAD 4559 Strategic Management (3 credits)
- BUAD 4600 Senior Seminar: Business Administration (1 credit)
- ECON 2000 Markets and Resource Allocation (3 credits)
- ECON 2100 Macroeconomics and the Business Cycle (3 credits)
- MATH 1170 College Algebra (4 credits)

**ADDITIONAL REQUIRED COURSES**

COMPLETE THE FOLLOWING COURSES:

- ACCT 3117 Managerial Analysis (3 credits)
  *or* ACCT 3118 Financial Statement Analysis (3 credits)
- BUAD 4354 Organizational Behavior (3 credits)
- BUAD 4456 Human Resources Management (3 credits)

**REQUIRED ELECTIVES**

SELECT 4 OF THE FOLLOWING COURSES:

- ACCT 3301 Cost Accounting I (3 credits)
- BUAD 3232 Business Statistics II (3 credits)
- BUAD 3281 Decision Support Systems (3 credits)
- BUAD 3420 Employment Law (3 credits)
- BUAD 3520 Business Ethics (3 credits)
- BUAD 3678 Risk Management and Insurance (3 credits)
- BUAD 4387 Strategic Information Management (3 credits)
- BUAD 4458 Entrepreneurship (3 credits)
- BUAD 4469 Small Business Case Analysis (3 credits)
- BUAD 4750 International Management (3 credits)
- ECON 3070 Labor Economics (3 credits)

**SUGGESTED SEMESTER SCHEDULE FOR BUSINESS ADMINISTRATION, B.S. MAJOR, MANAGEMENT EMPHASIS**

Freshman: All Fields of Emphasis

- Psychology, Sociology or Anthropology
- Liberal Education Requirements

Sophomore: All Fields of Emphasis

- ACCT 1101 Principles of Accounting I (3 credits)
- ACCT 1102 Principles of Accounting II (3 credits)
- BUAD 2220 Legal Environment (3 credits)
- BUAD 2231 Business Statistics I (3 credits)
- BUAD 2280 Computer Business Applications (3 credits)
- ECON 2000 Markets and Resource Allocation (3 credits)
- ECON 2100 Macroeconomics and the Business Cycle (3 credits)

Junior: All Fields of Emphasis

- BUAD 3223 Operations Management (3 credits)
- BUAD 3351 Management (3 credits)
- BUAD 3361 Marketing (3 credits)
- BUAD 3381 Management Information Systems (3 credits)
- BUAD 3771 Financial Management (3 credits)

Senior: All Fields of Emphasis

- BUAD 4600 Senior Seminar: Business Administration (1 credit)

Junior: Management Field of Emphasis

- ACCT 3117 Managerial Analysis (3 credits)
- Select four of the following (4000 level courses should be taken as a Senior):
- ACCT 3301 Cost Accounting I
- BUAD 3232 Business Statistics II (3 credits)
- BUAD 3281 Decision Support Systems (3 credits)
- BUAD 3420 Employment Law (3 credits)
- BUAD 3520 Business Ethics (3 credits)
- BUAD 3678 Risk Management and Insurance (3 credits)
- BUAD 4387 Strategic Information Management (3 credits)
- BUAD 4458 Entrepreneurship (3 credits)
- BUAD 4469 Small Business Case Analysis (3 credits)
- ECON 3070 Labor Economics (3 credits)

Senior: Management Field of Emphasis

- BUAD 4354 Organizational Behavior (3 credits)
- BUAD 4456 Human Resources Management (3 credits)
- BUAD 4559 Strategic Management (3 credits)

## Business Administration, B.S. *major*
## Finance Emphasis

Students majoring in Business Administration are advised to complete at least one course in Psychology, Sociology, or Anthropology as part of their liberal education requirements.

Required Credits: 68
Required GPA: 2.25

**I REQUIRED BASIC CORE COURSES**

C0MPLETE THE FOLLOWING COURSES:

- ACCT 1101 Principles of Accounting I (3 credits)
- ACCT 1102 Principles of Accounting II (3 credits)
- BUAD 2220 Legal Environment (3 credits)
- BUAD 2231 Business Statistics I (3 credits)
- BUAD 2280 Computer Business Applications (3 credits)

- BUAD 3223 Operations Management (3 credits)
- BUAD 3351 Management (3 credits)
- BUAD 3361 Marketing (3 credits)
- BUAD 3381 Management Information Systems (3 credits)
- BUAD 3771 Financial Management (3 credits)
- BUAD 4559 Strategic Management (3 credits)
- BUAD 4600 Senior Seminar: Business Administration (1 credit)
- ECON 2000 Markets and Resource Allocation (3 credits)
- ECON 2100 Macroeconomics and the Business Cycle (3 credits)
- MATH 1170 College Algebra (4 credits)

**ADDITIONAL REQUIRED COURSES**

COMPLETE THE FOLLOWING COURSES:

- BUAD 3772 Advanced Financial Management (3 credits)
- BUAD 3872 Investments (3 credits)
- BUAD 4779 Corporate Financial Policies (3 credits)
- ECON 3200 Economics of the Financial Sector (3 credits)

**REQUIRED ELECTIVES**

SELECT TWO OF THE FOLLOWING SEQUENCES:

*SEQ A:*

- ACCT 3404 Income Taxes I (3 credits)
- ACCT 3405 Income Taxes II (3 credits)

*SEQ B:*

- ACCT 3118 Financial Statement Analysis (3 credits)
- BUAD 3232 Business Statistics II (3 credits)

*SEQ C:*

- BUAD 3677 Principles of Real Estate (3 credits)
- BUAD 3678 Risk Management and Insurance (3 credits)

**SUGGESTED SEMESTER SCHEDULE FOR BUSINESS ADMINISTRATION, B.S. MAJOR, FINANCE EMPHASIS**

The following is a list of required Business Administration Courses arranged by year. This schedule is intended to help students plan their courses in an orderly fashion; however, these are only suggestions.

Freshman: All Fields of Emphasis

- Psychology, Sociology or Anthropology
- Liberal Education Requirements

Sophomore: All Fields of Emphasis

- ACCT 1101 Principles of Accounting I (3 credits)
- ACCT 1102 Principles of Accounting II (3 credits)
- BUAD 2220 Legal Environment (3 credits)
- BUAD 2231 Business Statistics I (3 credits)
- BUAD 2280 Computer Business Applications (3 credits)
- ECON 2000 Markets and Resource Allocation (3 credits)
- ECON 2100 Macroeconomics and the Business Cycle (3 credits)

Junior: All Fields of Emphasis

- BUAD 3223 Operations Management (3 credits)
- BUAD 3351 Management (3 credits)
- BUAD 3361 Marketing (3 credits)
- BUAD 3381 Management Information Systems (3 credits)
- BUAD 3771 Financial Management (3 credits)

Senior: All Fields of Emphasis

- BUAD 4600 Senior Seminar: Business Administration (1 credit)

Junior: Finance Field of Emphasis

- BUAD 3772 Advanced Financial Management (3 credits)
- BUAD 3872 Investments (3 credits)
- ECON 3200 Economics of the Financial Sector (3 credits)
- Select two of the following sets:
    1. BUAD 3678 Risk Management and Insurance (3 credits)
       BUAD 3677 Principles of Real Estate
    2. ACCT 3404 Income Taxes I (3 credits)
       ACCT 3405 Income Taxes II
    3. ACCT 3118 Financial Statement Analysis (3 credits)
       BUAD 3232 Statistics II

Senior: Finance Field of Emphasis

- BUAD 4559 Strategic Management (3 credits)
- BUAD 4779 Corporate Financial Policies (3 credits)

## Business Administration, B.S. *major* Entrepreneurship Emphasis

Students majoring in Business Administration are advised to complete at least one course in Psychology, Sociology, or Anthropology as part of their liberal education requirements.

Required Credits: 62
Required GPA: 2.25

**I REQUIRED BASIC CORE COURSES**

C0MPLETE THE FOLLOWING COURSES:

- ACCT 1101 Principles of Accounting I (3 credits)
- ACCT 1102 Principles of Accounting II (3 credits)
- BUAD 2220 Legal Environment (3 credits)
- BUAD 2231 Business Statistics I (3 credits)
- BUAD 2280 Computer Business Applications (3 credits)
- BUAD 3223 Operations Management (3 credits)
- BUAD 3351 Management (3 credits)
- BUAD 3361 Marketing (3 credits)
- BUAD 3381 Management Information Systems (3 credits)
- BUAD 3771 Financial Management (3 credits)
- BUAD 4559 Strategic Management (3 credits)
- BUAD 4600 Senior Seminar: Business Administration (1 credit)
- ECON 2000 Markets and Resource Allocation (3 credits)
- ECON 2100 Macroeconomics and the Business Cycle (3 credits)
- MATH 1170 College Algebra (4 credits)

**ADDITIONAL REQUIRED COURSES**

COMPLETE THE FOLLOWING COURSES:

- BUAD 4458 Entrepreneurship (3 credits)
- BUAD 4469 Small Business Case Analysis (3 credits)

**REQUIRED ELECTIVES**

SELECT 4 OF THE FOLLOWING COURSES WITH THE CONSENT OF ADVISOR:

- ACCT 3118 Financial Statement Analysis (3 credits)
- ACCT 3404 Income Taxes I (3 credits)
- BUAD 3281 Decision Support Systems (3 credits)
- BUAD 3283 E-Commerce Web Development (3 credits)
- BUAD 3384 Systems Analysis and Design (3 credits)
- BUAD 3467 Advertising Management (3 credits)
- BUAD 3568 Personal Selling (3 credits)
- BUAD 3677 Principles of Real Estate (3 credits)
- BUAD 3678 Risk Management and Insurance (3 credits)
- BUAD 4385 Data Modeling and Design (3 credits)
- BUAD 4387 Strategic Information Management (3 credits)
- BUAD 4456 Human Resources Management (3 credits)
- BUAD 4467 Marketing Research (3 credits)
- BUAD 4750 International Management (3 credits)

**SUGGESTED SEMESTER SCHEDULE FOR BUSINESS ADMINISTRATION, B.S. MAJOR, ENTREPRENEURSHIP EMPHASIS**

Freshman: All fields of emphasis

- Psychology, Sociology or Anthropology courses
- Liberal Education requirements

Sophomore: All fields of emphasis

- ACCT 1101 Principles of Accounting I (3 credits)
- ACCT 1102 Principles of Accounting II (3 credits)
- BUAD 2220 Legal Environment (3 credits)
- BUAD 2231 Business Statistics I (3 credits)
- BUAD 2280 Computer Business Applications (3 credits)
- ECON 2000 Markets and Resource Allocation (3 credits)
- ECON 2100 Macroeconomics and the Business Cycle (3 credits)

Junior: All fields of emphasis

- BUAD 3223 Operations Management (3 credits)
- BUAD 3351 Management (3 credits)
- BUAD 3361 Marketing (3 credits)
- BUAD 3381 Management Information Systems (3 credits)
- BUAD 3771 Financial Management (3 credits)

Senior: All fields of emphasis

- BUAD 4600 Senior Seminar: Business Administration (1 credit)

Junior: Entrepreneurship Field of Emphasis
Required Electives
Select four of the following courses with the consent of advisor (4000 level courses should be taken as a Senior)

- ACCT 3118 Financial Statement Analysis (3 credits)
- ACCT 3404 Income Taxes I (3 credits)
- BUAD 3281 Decision Support Systems (3 credits)
- BUAD 3283 E-Commerce Web Development (3 credits)
- BUAD 3384 Systems Analysis and Design (3 credits)
- BUAD 3467 Advertising Management (3 credits)
- BUAD 3568 Personal Selling (3 credits)
- BUAD 3677 Principles of Real Estate (3 credits)
- BUAD 3678 Risk Management and Insurance (3 credits)
- BUAD 4385 Data Modeling and Design (3 credits)
- BUAD 4387 Strategic Information Management (3 credits)
- BUAD 4456 Human Resources Management (3 credits)
- BUAD 4467 Marketing Research (3 credits)

Senior: Entrepreneurship Field of Emphasis

- BUAD 4458 Entrepreneurship (3 credits)
- BUAD 4469 Small Business Case Analysis (3 credits)
- BUAD 4559 Strategic Management (3 credits)

## Business Administration, B.S. *major* Marketing Emphasis

Students majoring in Business Administration are advised to complete at least one course in Psychology, Sociology, or Anthropology as part of their liberal education requirements.

Required Credits: 65
Required GPA: 2.25

**I REQUIRED BASIC CORE COURSES**

C0MPLETE THE FOLLOWING COURSES:

- ACCT2101
- ACCT2102
- BUAD 2220 Legal Environment (3 credits)
- BUAD 2231 Business Statistics I (3 credits)
- BUAD 2280 Computer Business Applications (3 credits)
- BUAD 3223 Operations Management (3 credits)
- BUAD 3351 Management (3 credits)
- BUAD 3361 Marketing (3 credits)
- BUAD 3381 Management Information Systems (3 credits)
- BUAD 3771 Financial Management (3 credits)
- BUAD 4559 Strategic Management (3 credits)
- BUAD 4600 Senior Seminar: Business Administration (1 credit)
- ECON 2000 Markets and Resource Allocation (3 credits)
- ECON 2100 Macroeconomics and the Business Cycle (3 credits)
- MATH 1170 College Algebra (4 credits)

**ADDITIONAL REQUIRED COURSES**

COMPLETE THE FOLLOWING COURSES:

- BUAD 3232 Business Statistics II (3 credits)
- BUAD 3567 Consumer Behavior (3 credits)
- BUAD 3568 Personal Selling (3 credits)
- BUAD 4467 Marketing Research (3 credits)
- BUAD 4468 Marketing Management (3 credits)

**REQUIRED ELECTIVES**

SELECT 2 OF THE FOLLOWING COURSES:

- BUAD 4385 Data Modeling and Design (3 credits)
  *or* BUAD 4387 Strategic Information Management (3 credits)
- BUAD 3384 Systems Analysis and Design (3 credits)

- BUAD 3467 Advertising Management (3 credits)
- BUAD 3569 E-Marketing (3 credits)
- BUAD 3751 International Marketing (3 credits)
- BUAD 4469 Small Business Case Analysis (3 credits)
- ECON 4000 Microeconomic Decisions (3 credits)
- ECON 4100 Macroeconomic Growth and Fluctuations (3 credits)

**SUGGESTED SEMESTER SCHEDULE FOR BUSINESS ADMINISTRATION, B.S. MAJOR, MARKETING EMPHASIS**

Freshman: All Fields of Emphasis

- Psychology, Sociology or Anthropology
- Liberal Education Requirements

Sophomore: All Fields of Emphasis

- ACCT 1101 Principles of Accounting I (3 credits)
- ACCT 1102 Principles of Accounting II (3 credits)
- BUAD 2220 Legal Environment (3 credits)
- BUAD 2231 Business Statistics I (3 credits)
- BUAD 2280 Computer Business Applications (3 credits)
- ECON 2000 Markets and Resource Allocation (3 credits)
- ECON 2100 Macroeconomics and the Business Cycle (3 credits)

Junior: All Fields of Emphasis

- BUAD 3223 Operations Management (3 credits)
- BUAD 3351 Management (3 credits)
- BUAD 3361 Marketing (3 credits)
- BUAD 3381 Management Information Systems (3 credits)
- BUAD 3771 Financial Management (3 credits)

Senior: All Fields of Emphasis

- BUAD 4600 Senior Seminar: Business Administration (1 credit)

Junior: Marketing Field of Emphasis

- BUAD 3232 Business Statistics II (3 credits)
- BUAD 3567 Consumer Behavior (3 credits)
- BUAD 3568 Personal Selling (3 credits)
- Select one of the following sets (4000 level courses should be taken as a Senior):
    1. BUAD 3384 Systems Analysis and Design (3 credits)
       BUAD 4385 Data Modeling and Design (3 credits)
       *or* BUAD 4387 Strategic Information Management (3 credits)
    2. BUAD 3467 Advertising Management (3 credits)
       BUAD 3569 E-Marketing (3 credits)
    3. BUAD 3751 International Marketing (3 credits)
       BUAD 4469 Small Business Case Analysis (3 credits)
    4. ECON 4000 Microeconomic Decisions (3 credits)
       ECON 4100 Macroeconomic Growth and Fluctuations (3 credits)

Senior: Marketing Field of Emphasis

- BUAD 4467 Marketing Research (3 credits)
- BUAD 4468 Marketing Management (3 credits)
- BUAD 4559 Strategic Management (3 credits)

## Computer Information Systems, B.S. *major*

Required Credits: 75
Required GPA: 2.25

**I REQUIRED BASIC CORE COURSES**

COMPLETE THE FOLLOWING COURSES:

- ACCT 1101 Principles of Accounting I (3 credits)
- ACCT 1102 Principles of Accounting II (3 credits)
- BUAD 2220 Legal Environment (3 credits)
- BUAD 2231 Business Statistics I (3 credits)
  *or* STAT 2610 Applied Statistics (4 credits)
- BUAD 2280 Computer Business Applications (3 credits)
- BUAD 3223 Operations Management (3 credits)
- BUAD 3351 Management (3 credits)
- BUAD 3361 Marketing (3 credits)
- BUAD 3381 Management Information Systems (3 credits)
- BUAD 3771 Financial Management (3 credits)
- BUAD 4559 Strategic Management (3 credits)
- BUAD 4600 Senior Seminar: Business Administration (1 credit)
- ECON 2000 Markets and Resource Allocation (3 credits)
- ECON 2100 Macroeconomics and the Business Cycle (3 credits)
- MATH 2210 Discrete Mathematics (4 credits)

**II ADDITIONAL REQUIRED COURSES**

COMPLETE THE FOLLOWING COURSE(S):

- CS 1309 Problem Solving and Computation (3 credits)
  *or*
  CS 1107 Introduction to Computers (3 credits)
  and CS 1108 Introduction to Computers II (3 credits)

COMPLETE THE FOLLOWING COURSES:

- BUAD 3382 Business Application Development (3 credits)
- BUAD 3384 Systems Analysis and Design (3 credits)
- BUAD 4385 Data Modeling and Design (3 credits)
- CS 2321 Computer Science I (4 credits)
- CS 2322 Computer Science II (4 credits)
- CS 4390 Social, Ethical, and Professional Issues in Computing (2 credits)

**III REQUIRED ELECTIVES**

SELECT THREE OF THE FOLLOWING: At least TWO courses must be from Group B

GROUP A.

- BUAD 3281 Decision Support Systems (3 credits)
- BUAD 3283 E-Commerce Web Development (3 credits)
- BUAD 3383 Data Communications (3 credits)
- BUAD 4386 Applied Software Development Project (3 credits)
- BUAD 4387 Strategic Information Management (3 credits)
  May include 3 credits of
- BUAD 4970 Internship (1-12 credits)

GROUP B.

- CS 2270 Introduction to Web Programming (3 credits)
- CS 3270 Advanced Web Programming (3 credits)
- CS 3350 Event-Driven Programming in a Windows Environment (3 credits)

- CS 3360 Object-Oriented Software Development (3 credits)
- CS 3370 Mobile Application Development (3 credits)
- CS 3380 Game Development (3 credits)
- CS 3507 Introduction to Databases (3 credits)
- CS 3528 Data Structures and Algorithms (4 credits)
- CS 3560 Data Communications and Networks (3 credits)
- CS 3718 Computer Graphics (3 credits)
- CS 4360 Software Engineering (3 credits)
- CS 4970 Internship (3 credits)

**SUGGESTED SEMESTER SCHEDULE FOR COMPUTER INFORMATION SYSTEMS, B.S. MAJOR**

The following is a list of required CIS courses arranged by year. This schedule is intended to help students plan their courses in an orderly fashion; however, these are only suggestions.

Freshman

- College Writing courses
- Science or Mathematics courses
- Liberal Education courses

Sophomore

- ACCT 1101 Principles of Accounting I (3 credits)
- ACCT 1102 Principles of Accounting II (3 credits)
- BUAD 2231 Business Statistics I (3 credits)
  or STAT 2610 Applied Statistics (4 credits)
- BUAD 2220 Legal Environment (3 credits)
- BUAD 2280 Computer Business Applications (3 credits)
- CS 1309 Problem Solving and Computation (3 credits)
  or
  CS 1107 Introduction to Computers (3 credits)
  and CS 1108 Introduction to Computers II (3 credits)
- ECON 2000 Markets and Resource Allocation (3 credits)
- ECON 2100 Macroeconomics and the Business Cycle (3 credits)
- MATH 2210 Discrete Mathematics (4 credits)
- Science or Mathematics courses
- Liberal Education courses

Junior

- BUAD 3223 Operations Management (3 credits)
- BUAD 3351 Management (3 credits)
- BUAD 3361 Marketing (3 credits)
- BUAD 3381 Management Information Systems (3 credits)
- BUAD 3382 Business Application Development (3 credits)
- BUAD 3771 Financial Management (3 credits)
- CS 2321 Computer Science I (4 credits)
- CS 2322 Computer Science II (4 credits)
- Computer Information Systems electives

Senior

- BUAD 3384 Systems Analysis and Design (3 credits)
- BUAD 4385 Data Modeling and Design (3 credits)
- BUAD 4387 Strategic Information Management (3 credits)
- BUAD 4559 Strategic Management (3 credits)
- BUAD 4600 Senior Seminar: Business Administration (1 credit)
- CS 4390 Social, Ethical, and Professional Issues in Computing (2 credits)
- Computer Information Systems electives
- Liberal Education courses

## Marketing Communication, B.S. *major*

Required Credits: 51
Required GPA: 2.25

**I REQUIRED COURSES**

COMPLETE THE FOLLOWING COURSES:

- BUAD 3351 Management (3 credits)
- BUAD 3361 Marketing (3 credits)
- BUAD 3467 Advertising Management (3 credits)
- BUAD 3567 Consumer Behavior (3 credits)
- BUAD 3568 Personal Selling (3 credits)
- BUAD 3569 E-Marketing (3 credits)
- BUAD 4467 Marketing Research (3 credits)
- BUAD 4468 Marketing Management (3 credits)
- MASC 1840 Introduction to Media Writing (3 credits)
- MASC 2600 Principles of Advertising (3 credits)
- MASC 2690 Principles of Public Relations (3 credits)
- MASC 4892 Senior Thesis/Project (3 credits)

SELECT 1 OF THE FOLLOWING COURSES:

- MASC 3500 Media Design (3 credits)
- MASC 3470 Multimedia Marketing Communication (3 credits)

SELECT 1 OF THE FOLLOWING COURSES:

- MASC 3270 Media Theory and Criticism (3 credits)
- MASC 4110 Media Research Methods (3 credits)

SELECT 1 OF THE FOLLOWING COURSES, 3-6 credits:

- MASC 3970 Internship (3 credits)
- MASC 4970 Internship (3 credits)
- BUAD 4970 Internship (1-12 credits)

**II REQUIRED ELECTIVES**

COMPLETE MASC ELECTIVES AT THE 2000
LEVEL OR ABOVE (6 CREDITS)

**Suggested semester schedule for Marketing Communication B.S. major**

The following is a list of required Marketing Communication Major, B.S. courses by year. This schedule is intended to help students plan their courses in an orderly fashion; however, these are only suggestions and this schedule is flexible.

Freshman

- MASC 1840 Introduction to Media Writing (3 credits)
- Liberal Education requirements

Sophomore

- MASC 2600 Principles of Advertising (3 credits)
- MASC 2690 Principles of Public Relations (3 credits)
- MASC 3500 Media Design (3 credits)
  or MASC 3470 Multimedia Marketing Communication (3 credits)
- Liberal Education requirements

Junior

- BUAD 3351 Management (3 credits)
- BUAD 3361 Marketing (3 credits)
- BUAD 3467 Advertising Management (3 credits)
- BUAD 3567 Consumer Behavior (3 credits)
- BUAD 3568 Personal Selling (3 credits)
- BUAD 3569 E-Marketing (3 credits)
- MASC 3500 Media Design (3 credits)
  or MASC 3470 Multimedia Marketing Communication (3 credits)
- Liberal Education requirements

Senior

- BUAD 4467 Marketing Research (3 credits)
- BUAD 4468 Marketing Management (3 credits)
- MASC 4110 Media Research Methods (3 credits)
- MASC 4892 Senior Thesis/Project (3 credits)
- MASC 3970 Internship (3 credits)
  or MASC 4970 Internship (3 credits)
  or BUAD 4970 Internship (1-12 credits)
- MASC Electives numbered 2000 or above
- Liberal Education requirements

## Business Administration *minor*

Required Credits: 24
Required GPA: 2.00

**REQUIRED COURSES**

COMPLETE THE FOLLOWING COURSES:

- ACCT 1101 Principles of Accounting I (3 credits)
- ACCT 1102 Principles of Accounting II (3 credits)
- BUAD 2231 Business Statistics I (3 credits)
- BUAD 3351 Management (3 credits)
- BUAD 3361 Marketing (3 credits)
- BUAD 3381 Management Information Systems (3 credits)
- BUAD 3771 Financial Management (3 credits)
- ECON 2000 Markets and Resource Allocation (3 credits)
  *or* ECON 2100 Macroeconomics and the Business Cycle (3 credits)

## Management Information Systems *minor*

Required Credits: 27
Required GPA: 2.00

**REQUIRED COURSES**

COMPLETE THE FOLLOWING COURSES:

- BUAD 2231 Business Statistics I (3 credits)
- BUAD 2280 Computer Business Applications (3 credits)
- BUAD 3381 Management Information Systems (3 credits)

SELECT 1 OF THE FOLLOWING COURSES:

- ACCT 1101 Principles of Accounting I (3 credits)
- ECON 2000 Markets and Resource Allocation (3 credits)
- ECON 2100 Macroeconomics and the Business Cycle (3 credits)

**REQUIRED ELECTIVES**

SELECT 5 OF THE FOLLOWING COURSES, 3 OF WHICH MUST NOT BE REPEATED IN THE MAJOR

- BUAD 3281 Decision Support Systems (3 credits)
- BUAD 3283 E-Commerce Web Development (3 credits)
- BUAD 3382 Business Application Development (3 credits)
- BUAD 3383 Data Communications (3 credits)
- BUAD 3384 Systems Analysis and Design (3 credits)
- BUAD 4385 Data Modeling and Design (3 credits)
- BUAD 4386 Applied Software Development Project (3 credits)
- BUAD 4387 Strategic Information Management (3 credits)

**MANAGEMENT INFORMATION SYSTEMS MINOR**

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Management Information Systems Minor must select
3 courses which are not repeated in their major.

## Business Administration Courses

**BUAD 1100 Introduction to Business (3 credits)**
Course provides an overview of the world of business. Included is an introduction to basic business terminology, concepts, and functions featuring an analysis of marketing, finance, production, personnel management, accounting, and economics as they relate to business meeting its social responsibility of resource allocation. Not open to Business Administration juniors or seniors.

**BUAD 1180 Business Computing (3 credits)**
An introductory course in business computing with emphasis placed on business information systems, including transaction processing, management information, decision support, and expert systems and how these systems are utilized by the various levels of business management. Computer software and hardware is discussed in the context of their role in implementing different types of information systems. Emphasis is placed on end-user computing and productivity software such as spreadsheets, database management, and word processing as tools of business end-users.

**BUAD 2100 Career and Internship Development (1 credit)**
Focus on career and internship development, and enhancement of job seeking skills. Emphasizes resume and cover letter writing, the art of interviewing, negotiating salaries, dressing for success, dining etiquette, and the overall transition from student to professional. Open to all majors seeking internships and applying for full-time employment or graduate/professional school. Prerequisite: Junior or senior status; sophomore status with consent of instructor.

**BUAD 2220 Legal Environment (3 credits)**
An introduction to business and the law. Considers the general nature of law, the legal system, alternative dispute resolution, constitutional law, business ethics, torts, contracts, product liability, employment law, business organizations, consumer protection, and the rights and responsibilities of individuals and businesses in our society.

**BUAD 2231 Business Statistics I (3 credits)**
Collection, presentation, analysis, and interpretation of business and economic data.

**BUAD 2280 Computer Business Applications (3 credits)**
Students develop applications employing decision support systems (DSS) technology to enable decision-making, planning, and auditing, utilizing client (MS-Office) software with emphasis on spreadsheets, graphic presentation software, and word processing, and database management systems. Students will test in attempt to attain Microsoft Office Specialist (MOS) Certification for Excel in the current version of study.

**BUAD 2750 International Business (3 credits)**
Survey of the various dimensions of the international business world. Course content includes national policies affecting trade and investment, international management, international finance, international marketing, international accounting practices, and international law.

**BUAD 3223 Operations Management (3 credits)**
Study of the operations function in both manufacturing and service organizations in terms of operations planning and control, inventory management, quality control, and job design. Prerequisites: ACCT 1102, BUAD 2231, and ECON 2100, or consent of instructor and junior standing.

**BUAD 3232 Business Statistics II (3 credits)**
Application of concepts for data analysis with emphasis on regression and correlation, time series, analysis of variance, and business forecasting. Prerequisite: BUAD 2231 or consent of instructor.

**BUAD 3281 Decision Support Systems (3 credits)**
Design and development of decision support systems with emphasis on management science techniques using a linear programming tool implemented in Excel. Design, documentation, and auditing standards are defined and applied to models and spreadsheet database applications. Prerequisites: ACCT 1102 and BUAD 2280.

**BUAD 3283 E-Commerce Web Development (3 credits)**
WWW environment, browsers, Web 2.0, Ajax Client and programming techniques. Major topics include Web page design, Web-based multimedia/ graphics, XHTML, W3C XHTML validation service, CSS AND JavaScript. Create Headings, Links, Images, Special characters, Tables, Lists, Forms, Positioning Elements, Embedded Style Sheets, Text Flow, Box Model, User Style sheet and Drop-Down Menu. Prerequisites: BUAD 2280 and any computer programming course.

**BUAD 3321 Business Law I (3 credits)**
A study of the principles of law in the American legal system. Topics include contracts, sales, secured transactions, agency law, and employment law.

**BUAD 3322 Business Law II (3 credits)**
A study of negotiable instruments, bank deposits and collection, bankruptcy, suretyship, partnerships, corporations, federal securities law, accountant's legal liability, property, insurance, trust, and estates. Prerequisite: BUAD 3321.

**BUAD 3351 Management (3 credits)**
Management principles course emphasizing functional areas of management: Planning, organizing, leading and controlling. Prerequisites: ACCT 1102, ECON 2100, and BUAD 2231; or consent of instructor and junior standing.

**BUAD 3361 Marketing (3 credits)**
Procedures and institutions involved in the distribution of goods and services, product development and pricing, marketing costs, consumer motivation and buying habits, and government regulation. Prerequisites: ACCT 1102, ECON 2100, and BUAD 2231; or consent of instructor and junior standing.

**BUAD 3381 Management Information Systems (3 credits)**
A decision-making course in management information systems. Focus on the enhancement of competitive advantage by utilizing computer information systems to improve strategic decision-making, improve efficiency, and provide innovative products and services. Emphasis is on information technology's impact on competitive pressures, responses to competitive pressures, and optimal use of the types of information systems by management at the appropriate organizational level. Prerequisites: ACCT 1101, BUAD 2231, BUAD 2280, ECON 2000 or ECON 2100, or consent of instructor and junior standing.

**BUAD 3382 Business Application Development (3 credits)**
Advanced business application computer programming with emphasis on the highly structured design techniques used by industry. Interactive concepts are integrated within table processing, file processing, and web E-Commerce processing using Micro Focus, Visual Basic, or other similar tool. Prerequisites: BUAD 2280 or consent of instructor.

**BUAD 3383 Data Communications (3 credits)**
An overview of data communications network design issues and strategies critical to the design and implementation of effective distributed computing systems. Topics include data communications hardware and software, communications media, and OSI reference model. Prerequisite: BUAD 3381 or consent of instructor.

**BUAD 3384 Systems Analysis and Design (3 credits)**
Information systems methodologies to solve enterprise-wide managerial and organizational problems. Students will use systems design methodologies to develop information system projects and evaluate cases. Approaches to information system implementation, installation, and maintenance activities are also addressed. Includes structured laboratory exercises using computer-based software engineering tools. Prerequisites: ACCT 1101, BUAD 2280, and BUAD 3381, or consent of instructor and junior standing.

**BUAD 3420 Employment Law (3 credits)**
The study of employment law and labor relations. The course will include presentations, negotiation simulations, and case studies.

**BUAD 3467 Advertising Management (3 credits)**
Importance of advertising in the marketing function: buying motives, motivation and advertising research, media selection, advertising budgets, advertising agencies, social and economic effects of advertising, problems and testing of advertising effectiveness, and advertising as part of the marketing plan. Prerequisite: BUAD 3361.

**BUAD 3520 Business Ethics (3 credits)**
A survey of business ethics. Examines conflicts and problems which are facing business persons and the increase of consciousness in business ethics. Concentrates on organizational, market, and governmental regulations of business ethics and their effects on business and its stakeholders.

**BUAD 3567 Consumer Behavior (3 credits)**
An interdisciplinary approach to the study of the buying behaviors of consumers. Emphasizes the marketing implications of theory and findings from the behavioral sciences. Prerequisite: BUAD 3361.

**BUAD 3568 Personal Selling (3 credits)**
A study of the principles and psychology of personal selling. Course requires the preparation and presentation of a sales story. Prerequisite: BUAD 3361.

**BUAD 3569 E-Marketing (3 credits)**
This course focuses on new marketing and promotion technologies and channels. Prerequisites: BUAD 2280 and BUAD 3361; or consent of instructor and junior standing.

**BUAD 3677 Principles of Real Estate (3 credits)**
Basic principles of real estate profession: small use, property rights, land utilization, neighborhood growth, appraisal, sales and property management as they relate to the real estate profession.

**BUAD 3678 Risk Management and Insurance (3 credits)**
Principles for decision making involving risk taking and risk avoidance. An examination of the theory of economic risk with emphasis on insurance as a major tool for dealing with risk.

**BUAD 3751 International Marketing (3 credits)**
This course provides a global orientation for marketing in today's complex, rapidly changing international business environment. It focuses on developing an effective global marketing strategy through market segmentation, market targeting, and market positioning in the international business world. Prerequisites: ACCT 1102 and ECON 2100.

**BUAD 3771 Financial Management (3 credits)**
An investigation of the financial management of corporate organizations. Basic principles of analysis, planning, and control are considered for determining the best combinations of obtaining and investing capital. Prerequisites: ACCT 1102, BUAD 2231, and ECON 2100, or consent of instructor and junior standing.

**BUAD 3772 Advanced Financial Management (3 credits)**
An in-depth analysis of financial management in corporations with emphasis on decision making. Working capital management, short-term and long-term financing, mergers, business failures, and reorganizations are considered in depth with an extension of the valuation concepts presented in the basic financial management course. Prerequisite: BUAD 3771.

**BUAD 3773 Global Finance (3 credits)**
The study of the risks and opportunities faced by multinational firms. Students will consider five factors that distinguish global finance from domestic finance: different currency denominations, legal ramifications, role of governments, and language and cultural differences. The course covers the following global opportunities: product efficiency, broader markets, new raw material sources, new technology, diversification, and retain customers. Prerequisites: ACCT 1101, ACCT 1102, BUAD 2231, BUAD 3771, ECON 2000, and ECON 2100.

**BUAD 3872 Investments (3 credits)**
Analysis of alternatives in the investment environment required to evaluate the potential risk and return associated with an investment decision. Prerequisite: BUAD 3771.

**BUAD 4323 Business Law, Ethics & Tax Regulation (REG) (3 credits)**
The advanced study of ethics and professional responsibility, business law, Federal tax procedures and accounting issues, Federal taxation of property transactions, and Federal taxation for individuals and entities. Course intended primarily for Certified Public Accountant candidates. Prerequisites: ACCT 3404, BUAD 3321 and BUAD 3322.

**BUAD 4354 Organizational Behavior (3 credits)**
Focuses on the problems encountered by employees in work relationships with fellow employees, supervisors, and subordinates. Empirical research providing models and tools for diagnosing and managing work situations, individual and group behavior, intergroup conflicts, supervisory problems and organizational change will be studied. Prerequisite: BUAD 3351.

**BUAD 4385 Data Modeling and Design (3 credits)**
The study of database design methodologies, implementation and administration for centralized and distributed database environments. Students will use database design methodologies to develop database projects. Includes study of Structured Query Language (SQL), security techniques, user interface design, testing, and implementation. Prerequisites: BUAD 3384 or consent of instructor.

**BUAD 4386 Applied Software Development Project (3 credits)**
Solve client information system problem using project management and information system methodologies as part of a team. Utilize CASE tools, develop systems documentation, implement system, and present completed project report to colleagues and client. Prerequisites: BUAD 3384 and BUAD 3382.

**BUAD 4387 Strategic Information Management (3 credits)**
A study of management systems, computer based or otherwise, in areas where the decision making process is semi-structured to unstructured. Emphasis is on corporate, upper-level strategic management and behavioral aspects of modern organization decision-making. Prerequisites: BUAD 3351, BUAD 3361, BUAD 3381, and BUAD 3771.

**BUAD 4456 Human Resources Management (3 credits)**
Role of human resource management function: Strategic human resource management; equal employment opportunity (EEO); staffing; talent management and development; total rewards; compensation and benefits; risk management and worker protection; and employee and labor relations. Prerequisite: BUAD 3351.

**BUAD 4458 Entrepreneurship (3 credits)**
Emphasizes the process of starting, financing, and managing a business of your own. Emphasis is on starting financing aspects, because of their uniqueness to small companies. Prerequisites: To be seriously considering starting a business, or to be actively engaged in operating a small business.

**BUAD 4467 Marketing Research (3 credits)**
Fundamentals and techniques involved in gathering, recording, analysis, and presentation of data used in solving problems in marketing management. Requires the preparation and presentation of a research project. Prerequisite: BUAD 3361.

**BUAD 4468 Marketing Management (3 credits)**
An integrative seminar focusing on the problems faced by marketing executive in administration of marketing operations including advertising, personal selling, channels, marketing research, and product development. Emphasizes the decisions that evolve around organizational issues and the implementation of strategic decisions. Prerequisites: BUAD 3361 and BUAD 4467.

**BUAD 4469 Small Business Case Analysis (3 credits)**
Provides management counseling experience for students and involvement in a business problem solving experience in an actual business environment. Prerequisites: BUAD 3351 and BUAD 3361.

**BUAD 4559 Strategic Management (3 credits)**
Presents the top management perspective in an organization in terms of formulating and implementing corporate strategy. Written and oral presentations are required. Prerequisites: BUAD 3351, BUAD 3361, BUAD 3381 or ACCT 3110, and BUAD 3771.

**BUAD 4600 Senior Seminar: Business Administration (1 credit)**
Course consists of recommended common professional components (major core courses required for both Accounting and Business Administration majors), and preparation for and completion of assessment exams for all Business Administration majors. Assessment exams measure student knowledge of required basic core courses in accounting, economics, business law, statistics, computer business applications, management, marketing, finance, and strategic management. Test results allow the Business Administration department to compare departmental with national student outcomes and implement subsequent curriculum improvements. This course is required of all Business Administration, B.S. majors. Prerequisite(s): Completion of the required basic core. Course must be taken during the students last term of enrollment and graduation must follow at the end of that term.

**BUAD 4750 International Management (3 credits)**
Introduction to the international perspectives of starting, managing, or working in an organization. This course places students in international environments via case studies focusing on the management of exporting, international licensing, creating international joint ventures, and developing wholly owned global subsidiaries. Prerequisites: BUAD 3351 and ECON 2100.

**BUAD 4779 Corporate Financial Policies (3 credits)**
Analysis of financial concepts as they apply to financial decisions with an in-depth study of the scope and nature of corporate finance. Prerequisite: BUAD 3771.

**BUAD 4910 Directed Independent Study (3 credits)**
When taken as Readings in Business Administration, the following description applies: Research in one of the functional areas of management, finance, marketing, accounting, or real estate. Prerequisite: Major in Business Administration and consent of advisor.

**BUAD 4970 Internship (1-12 credits)**
Students serve in a full- or part-time supervised field position in business administration or computer information systems, in a public or private organization. Students are expected to demonstrate and contribute acquired knowledge and skills to the organization, and be exposed to more than routine, entry-level, or part-time staff business operations. Students should arrange for this class during the semester prior to the internship. Students may register for only one business administration or computer information systems internship during their BSU academic career. Upon completion, students will be required to report on their experience (daily journal and final comprehensive paper). The department recommends that students return to BSU for at least one semester upon internship completion. Graded Satisfactory/Unsatisfactory.

## All-University Courses

The course numbers listed below, not always included in the semester class schedule, may be registered for by consent of the advisor, instructor, or department chair, or may be assigned by the department when warranted. Individual registration requires previous arrangement by the student and the completion of any required form or planning outline as well as any prerequisites.

1910, 2910, 3910, 4910 DIRECTED INDEPENDENT STUDY
1920, 2920, 3920, 4920 DIRECTED GROUP STUDY
1930, 2930, 3930, 4930 EXPERIMENTAL COURSE
1940, 2940, 3940, 4940 IN-SERVICE COURSE
1950, 2950, 3950, 4950 WORKSHOP, INSTITUTE, TOUR
1960, 2960, 3960, 4960 SPECIAL PURPOSE INSTRUCTION
1970, 2970, 3970, 4970 INTERNSHIP
1980, 2980, 3980, 4980 RESEARCH
1990, 2990, 3990, 4990 THESIS

# Chemistry

Chemistry is often called the "Central Science," because chemical knowledge is essential not only to chemists, but also to biologists (through biochemistry, molecular biology, and environmental chemistry) and engineers (through materials science and polymers). A good knowledge of chemistry provides many options for graduate study and many options for career paths.

The study of chemistry can be divided into two parts: analysis and synthesis. Analysis determines the identities of the components of a real-world sample (a sample of polluted water, for example) and then measures how much of each component is present. Synthesis produces new, previously non-existent materials. Twenty-one million chemicals are known, and new ones are produced all the time. Will you synthesize one that reduces pollution? Cures a dreaded disease?

First-and second-year students interested in a chemistry major or minor are encouraged to discuss their career interests with members of the Department of Chemistry. This will allow good schedule planning, leading to on-time graduation.

**Programs**

- Chemistry, B.A. *major*
- Chemistry, B.S. (Environmental Chemistry Emphasis)*major*
- Chemistry, B.S. (Biochemistry/ Biotechnology Emphasis)*major*
- Chemistry, B.S. (Chemistry Emphasis)*major*
- Chemistry, B.S. (Criminalistics Emphasis)*major*
- Science Education, B.S. (Chemistry Specialty (Teacher Licensure))*major*
- Chemistry *minor*

**Career Directions**

Biologist
Chemist
Dentist
Engineer
Entrepreneur
Environmental Chemist
Forensic Scientist
Geochemist
Nutritionist
Optometrist
Pharmacist
Physical Therapist
Physician
Technical Management
Technical Sales
Toxicologist
Veterinarian
Also: Graduate Study

**Preparation**

*Recommended High School Courses*

Biology
Chemistry
Mathematics
Physics

## Chemistry, B.A. *major*

Required Credits: 31
Required GPA: 2.25

**I REQUIRED COURSES**

Note: Students enrolled in CHEM 1111 who elect this major should enroll in CHEM 2212 during the second semester.

SELECT 1 OF THE FOLLOWING COURSES:

- CHEM 1111 General Chemistry I (4 credits)
- CHEM 2211 Principles of Chemistry I (4 credits)

COMPLETE THE FOLLOWING COURSES:

- CHEM 2212 Principles of Chemistry II (4 credits)
- CHEM 3100 Journal Club (1 credit)
- CHEM 3110 Laboratory Management and Safety (2 credits)
- CHEM 3311 Organic Chemistry I (3 credits)
- CHEM 3312 Organic Chemistry II (3 credits)
- CHEM 3371 Organic Chemistry Laboratory I (1 credit)
- CHEM 3372 Organic Chemistry Laboratory II (1 credit)
- CHEM 3507 Analytical Chemistry (3 credits)
- CHEM 3570 Analytical Chemistry Laboratory (1 credit)

SELECT 1 OF THE FOLLOWING COURSES:

- CHEM 4411 Biochemistry I (3 credits)
- CHEM 4811 Advanced Inorganic Chemistry I (3 credits)

**II REQUIRED ELECTIVES**

SELECT 5 SEMESTER CREDITS OF ELECTIVES FROM CHEM 3100 OR ABOVE. UP TO 4 SEMESTER CREDITS OF RESEARCH CHEM 3980 OR CHEM 4980 MAY BE USED IN THIS AREA.

**SUGGESTED SEMESTER SCHEDULE FOR CHEMISTRY MAJOR, B.A.**

The following is a list of required courses for the Chemistry Major, B.A., arranged by year. This schedule is intended to assist students in planning their academic program and may be altered somewhat to fit the students background and circumstances.

Freshman

- CHEM 2211 Principles of Chemistry I (4 credits)
- CHEM 2212 Principles of Chemistry II (4 credits)
- Liberal Education requirements
- Electives

Sophomore

- CHEM 3311 Organic Chemistry I (3 credits)
- CHEM 3312 Organic Chemistry II (3 credits)
- CHEM 3371 Organic Chemistry Laboratory I (1 credit)
- CHEM 3372 Organic Chemistry Laboratory II (1 credit)
- CHEM 3507 Analytical Chemistry (3 credits)

- CHEM 3570 Analytical Chemistry Laboratory (1 credit)
- Liberal Education requirements

Junior/Senior

- CHEM 3100 Journal Club (1 credit)
- CHEM 3110 Laboratory Management and Safety (2 credits)
- CHEM 4411 Biochemistry I (3 credits)
  *or* CHEM 4811 Advanced Inorganic Chemistry I (3 credits)
- Chemistry electives
- Complete Liberal Education requirements
- Electives

## Chemistry, B.S. *major*
## Environmental Chemistry Emphasis

Required Credits: 73
Required GPA: 2.25

**I REQUIRED COURSES**

SELECT 1 OF THE FOLLOWING COURSES:

- CHEM 1111 General Chemistry I (4 credits)
- CHEM 2211 Principles of Chemistry I (4 credits)

COMPLETE THE FOLLOWING COURSES:

- CHEM 2212 Principles of Chemistry II (4 credits)
- CHEM 3100 Journal Club (1 credit)
- CHEM 3311 Organic Chemistry I (3 credits)
- CHEM 3312 Organic Chemistry II (3 credits)
- CHEM 3371 Organic Chemistry Laboratory I (1 credit)
- CHEM 3372 Organic Chemistry Laboratory II (1 credit)
- CHEM 3507 Analytical Chemistry (3 credits)
- CHEM 3570 Analytical Chemistry Laboratory (1 credit)
- CHEM 4510 Instrumental Methods of Analysis (3 credits)
- CHEM 4571 Instrumental Analysis Laboratory I (1 credit)
- CHEM 4572 Instrumental Analysis Laboratory II (1 credit)
- MATH 2471 Calculus I (5 credits)
- PHYS 2101 Physics I (5 credits)

**II REQUIRED EMPHASIS**

COMPLETE 2 OF THE FOLLOWING COURSES:

- CHEM 4101 Environmental Chemistry (3 credits)
  *or* ENVR 4101 Environmental Chemistry (3 credits)
- CHEM 4102 Environmental Chemistry II (3 credits)
  *or* ENVR 4102 Environmental Chemistry II (3 credits)

COMPLETE 4 SEMESTER CREDITS FROM THE FOLLOWING COURSE:

- CHEM 4970 Internship (4 credits)

**II REQUIRED EMPHASIS**

Select 3 semester credits of electives from CHEM 3100 or above. (CHEM 3100 may be repeated with 1 credit applying to this area.)

SELECT 24 SEMESTER CREDITS FROM THE FOLLOWING COURSES:

- BIOL 2610 General Ecology (3 credits)
- BIOL 2620 Field and Laboratory Projects in Ecological Research (2 credits)
- BIOL 3361 Limnology I (4 credits)
- CHEM 3140 Chemical Toxicology (3 credits)
- CHEM 3150 Standard Methods of Water Analysis (3 credits)
  *or*ENVR 4220 Sampling and Analysis (4 credits)
- CHEM 4411 Biochemistry I (3 credits)
- CHEM 4412 Biochemistry II (3 credits)
- CHEM 4471 Biochemistry Laboratory I (1 credit)
- ENVR 4050 Geochemistry (3 credits)
- ENVR 4200 Wastewater Treatment (3 credits)
- ENVR 4240 Waste Management (4 credits)
- ENVR 4260 Risk Assessment and Auditing (3 credits)
- ENVR 4400 Environmental Microbiology (3 credits)
- ENVR 4500 Environmental Toxicology (4 credits)
- GEOL 3211 Environmental Hydrology (3 credits)

## Chemistry, B.S. *major*
## Biochemistry/ Biotechnology Emphasis

Required Credits: 66
Required GPA: 2.25

**I REQUIRED COURSES**

SELECT 1 OF THE FOLLOWING COURSES:

- CHEM 1111 General Chemistry I (4 credits)
- CHEM 2211 Principles of Chemistry I (4 credits)

COMPLETE THE FOLLOWING COURSES:

- CHEM 2212 Principles of Chemistry II (4 credits)
- CHEM 3100 Journal Club (1 credit)
- CHEM 3311 Organic Chemistry I (3 credits)
- CHEM 3312 Organic Chemistry II (3 credits)
- CHEM 3371 Organic Chemistry Laboratory I (1 credit)
- CHEM 3372 Organic Chemistry Laboratory II (1 credit)
- CHEM 3507 Analytical Chemistry (3 credits)
- CHEM 3570 Analytical Chemistry Laboratory (1 credit)
- CHEM 4510 Instrumental Methods of Analysis (3 credits)
- CHEM 4571 Instrumental Analysis Laboratory I (1 credit)
- CHEM 4572 Instrumental Analysis Laboratory II (1 credit)
- MATH 2471 Calculus I (5 credits)
- PHYS 2101 Physics I (5 credits)

**II REQUIRED EMPHASIS**

COMPLETE THE FOLLOWING COURSES:

- BIOL 1211 Introductory Biology I (4 credits)
- BIOL 1212 Introductory Biology II (4 credits)
- CHEM 4411 Biochemistry I (3 credits)
- CHEM 4412 Biochemistry II (3 credits)
- CHEM 4471 Biochemistry Laboratory I (1 credit)
- CHEM 4472 Biochemistry Laboratory II (1 credit)

SELECT 2 OF THE FOLLOWING COURSES:

- BIOL 2110 Human Anatomy and Physiology (5 credits)
- BIOL 2360 Genetics (4 credits)
- BIOL 3580 Immunology (4 credits)
- BIOL 3590 Cell Biology (4 credits)

- BIOL 3710 Microbiology (4 credits)

**II REQUIRED EMPHASIS**

Select 6 semester credits from CHEM 3100 or above. Up to 3 semester credits of research (CHEM 3980 or 4980) and internship (CHEM 3970 or 4970) may be used in this area. CHEM 3100 may be repeated with 1 credit applying to this area.

**SUGGESTED SEMESTER SCHEDULE FOR CHEMISTRY MAJOR, B.A.**

The following is a list of required courses for the Chemistry Major, B.A., arranged by year. This schedule is intended to assist students in planning their academic program and may be altered somewhat to fit the students background and circumstances.

Freshman

- CHEM 2211 Principles of Chemistry I (4 credits)
- CHEM 2212 Principles of Chemistry II (4 credits)
- Liberal Education requirements
- Electives

Sophomore

- CHEM 3311 Organic Chemistry I (3 credits)
- CHEM 3312 Organic Chemistry II (3 credits)
- CHEM 3371 Organic Chemistry Laboratory I (1 credit)
- CHEM 3372 Organic Chemistry Laboratory II (1 credit)
- CHEM 3507 Analytical Chemistry (3 credits)
- CHEM 3570 Analytical Chemistry Laboratory (1 credit)
- Liberal Education requirements

Junior/Senior

- CHEM 3100 Journal Club (1 credit)
- CHEM 3110 Laboratory Management and Safety (2 credits)
- CHEM 4411 Biochemistry I (3 credits)
  *or* CHEM 4811 Advanced Inorganic Chemistry I (3 credits)
- Chemistry electives
- Complete Liberal Education requirements
- Electives

## Chemistry, B.S. *major*
## Chemistry Emphasis

Required Credits: 73
Required GPA: 2.25

**I REQUIRED COURSES**

SELECT 1 OF THE FOLLOWING COURSES:

- CHEM 1111 General Chemistry I (4 credits)
- CHEM 2211 Principles of Chemistry I (4 credits)

COMPLETE THE FOLLOWING COURSES:

- CHEM 2212 Principles of Chemistry II (4 credits)
- CHEM 3100 Journal Club (1 credit)
- CHEM 3311 Organic Chemistry I (3 credits)
- CHEM 3312 Organic Chemistry II (3 credits)
- CHEM 3371 Organic Chemistry Laboratory I (1 credit)
- CHEM 3372 Organic Chemistry Laboratory II (1 credit)
- CHEM 3507 Analytical Chemistry (3 credits)
- CHEM 3570 Analytical Chemistry Laboratory (1 credit)
- CHEM 4510 Instrumental Methods of Analysis (3 credits)
- CHEM 4571 Instrumental Analysis Laboratory I (1 credit)
- CHEM 4572 Instrumental Analysis Laboratory II (1 credit)
- MATH 2471 Calculus I (5 credits)
- PHYS 2101 Physics I (5 credits)

**II REQUIRED EMPHASIS**

COMPLETE THE FOLLOWING COURSES:

- CHEM 4411 Biochemistry I (3 credits)
- CHEM 4711 Physical Chemistry I (3 credits)
- CHEM 4712 Physical Chemistry II (3 credits)
- CHEM 4771 Physical Chemistry Laboratory I (1 credit)
- CHEM 4772 Physical Chemistry Laboratory II (1 credit)
- CHEM 4811 Advanced Inorganic Chemistry I (3 credits)
- CHEM 4871 Inorganic Chemistry Laboratory I (1 credit)
- MATH 2472 Calculus II (5 credits)
- PHYS 2102 Physics II (5 credits)

SELECT 1 OF THE FOLLOWING COURSES:

- CHEM 4412 Biochemistry II (3 credits)
- CHEM 4812 Advanced Inorganic Chemistry II (3 credits)

**II REQUIRED EMPHASIS**

SELECT 9 SEMESTER CREDITS FROM CHEM 3100 OR ABOVE AND/OR THE FOLLOWING COURSES. (7 CREDITS MUST COME FROM 3000-LEVEL COURSES OR ABOVE). CHEM 3100 MAY BE REPEATED WITH 1 SEMESTER CREDIT APPLYING TO THIS AREA.

- PHYS 3300 Thermodynamics and Heat Transfer (3 credits)
- PHYS 3600 Modern Physics (4 credits)

- MATH 2210 Discrete Mathematics (4 credits)
- MATH 2480 Multivariable Calculus (4 credits)
- MATH 2490 Differential Equations (4 credits)
- STAT 2610 Applied Statistics (4 credits)

## Chemistry, B.S. *major*
## Criminalistics Emphasis

Required Credits: 78
Required GPA: 2.25

**I REQUIRED COURSES**

SELECT 1 OF THE FOLLOWING COURSES:

- CHEM 1111 General Chemistry I (4 credits)
- CHEM 2211 Principles of Chemistry I (4 credits)

COMPLETE THE FOLLOWING COURSES:

- CHEM 2212 Principles of Chemistry II (4 credits)
- CHEM 3100 Journal Club (1 credit)
- CHEM 3311 Organic Chemistry I (3 credits)
- CHEM 3312 Organic Chemistry II (3 credits)
- CHEM 3371 Organic Chemistry Laboratory I (1 credit)

- CHEM 3372 Organic Chemistry Laboratory II (1 credit)
- CHEM 3507 Analytical Chemistry (3 credits)
- CHEM 3570 Analytical Chemistry Laboratory (1 credit)
- CHEM 4510 Instrumental Methods of Analysis (3 credits)
- CHEM 4571 Instrumental Analysis Laboratory I (1 credit)
- CHEM 4572 Instrumental Analysis Laboratory II (1 credit)
- MATH 2471 Calculus I (5 credits)
- PHYS 2101 Physics I (5 credits)

**II REQUIRED EMPHASIS**

COMPLETE THE FOLLOWING COURSES:

- BIOL 1211 Introductory Biology I (4 credits)
- BIOL 1212 Introductory Biology II (4 credits)
- BIOL 3380 Molecular Genetics: Theory and Practice (4 credits)
- CHEM 2210 Criminalistics (3 credits)
- CHEM 2270 Criminalistics Laboratory (1 credit)
- CHEM 4411 Biochemistry I (3 credits)
- CHEM 4471 Biochemistry Laboratory I (1 credit)
- CRJS 1120 Criminal Justice and Society (4 credits)
- CRJS 3358 Criminal Law (4 credits)
- CRJS 3359 Criminal Investigation (4 credits)
- STAT 2610 Applied Statistics (4 credits)

COMPLETE THE FOLLOWING COURSE:

- CHEM 4970 Internship (3-4 credits)

SELECT 1 OF THE FOLLOWING COURSES:

- CHEM 4711 Physical Chemistry I (3 credits)
- CHEM 4712 Physical Chemistry II (3 credits)

## Science Education, B.S. *major*
## Chemistry Specialty (Teacher Licensure)

Required Credits: 78
Required GPA: 2.50

**Core Courses for Science Teaching in Grades 5-8**

COMPLETE THE FOLLOWING COURSES:

- BIOL 1211 Introductory Biology I (4 credits)
  *or* BIOL 1110 Human Biology (4 credits)
- BIOL 1212 Introductory Biology II (4 credits)
  *or* BIOL 1120 General Biology: Evolution And Ecology (3 credits)
- CHEM 2211 Principles of Chemistry I (4 credits)
  *or* CHEM 1111 General Chemistry I (4 credits)
- CHEM 2212 Principles of Chemistry II (4 credits)
  *or* CHEM 1112 General Chemistry II (4 credits)
- GEOL 1110 Physical Geology (4 credits)
- SCI 3100 Integrative Science for Teachers (4 credits)
- SCI 3450 Science Methods For Grades 5-8 (4 credits)
  *or* ED 3410 Middle School Science Methods (4 credits)

**REQUIRED PROFESSIONAL EDUCATION COURSES**

COMPLETE THE FOLLOWING COURSES:

- ED 3100 Introduction to the Foundations of Public School Education (3 credits)
- ED 3110 Educational Psychology (3 credits)
- ED 3140 Human Relations In Education (3 credits)
- ED 3350 Pedagogy: Planning for Instruction (3 credits)
- ED 3780 Adaptation and Management: Designing the Learning Environment (3 credits)
- ED 4737 Content Area Reading (3 credits)
- ED 4799 The Professional Teacher (1 credit)
- HLTH 3400 Health and Drugs in Society (2 credits)

Complete 12 credits of student teaching:

- ED 4830 Student Teaching - Secondary (1-12 credits)

**CHEMISTRY SPECIALTY**

COMPLETE THE FOLLOWING COURSES:

- CHEM 3110 Laboratory Management and Safety (2 credits)
- CHEM 3311 Organic Chemistry I (3 credits)
- CHEM 3312 Organic Chemistry II (3 credits)
- CHEM 3371 Organic Chemistry Laboratory I (1 credit)
- CHEM 3372 Organic Chemistry Laboratory II (1 credit)
- CHEM 3507 Analytical Chemistry (3 credits)
- CHEM 3570 Analytical Chemistry Laboratory (1 credit)
- CHEM 3980 Research (1 credit)

SELECT 1 OF THE FOLLOWING COURSES:

- CHEM 4411 Biochemistry I (3 credits)
- CHEM 4811 Advanced Inorganic Chemistry I (3 credits)

## Chemistry *minor*

Required Credits: 23
Required GPA: 2.00

**REQUIRED COURSES**

SELECT 1 OF THE FOLLOWING COURSES:

- CHEM 1111 General Chemistry I (4 credits)
- CHEM 2211 Principles of Chemistry I (4 credits)

COMPLETE THE FOLLOWING COURSES:

- CHEM 2212 Principles of Chemistry II (4 credits)
- CHEM 3311 Organic Chemistry I (3 credits)
- CHEM 3312 Organic Chemistry II (3 credits)
- CHEM 3371 Organic Chemistry Laboratory I (1 credit)
- CHEM 3372 Organic Chemistry Laboratory II (1 credit)

REQUIRED SPECIALIZATION
Select 1 of the following specializations: A, B OR C

**A. ANALYTICAL CHEMISTRY**

COMPLETE THE FOLLOWING COURSES:

- CHEM 3507 Analytical Chemistry (3 credits)
- CHEM 3570 Analytical Chemistry Laboratory (1 credit)
- CHEM 4510 Instrumental Methods of Analysis (3 credits)
- CHEM 4571 Instrumental Analysis Laboratory I (1 credit)

**B. BIOCHEMISTRY /BIOTECHNOLOGY**

COMPLETE THE FOLLOWING COURSES:

- CHEM 4411 Biochemistry I (3 credits)
- CHEM 4412 Biochemistry II (3 credits)
- CHEM 4471 Biochemistry Laboratory I (1 credit)

**C. CRIMINALISTICS**

COMPLETE THE FOLLOWING COURSES:

- CHEM 2210 Criminalistics (3 credits)
- CHEM 2270 Criminalistics Laboratory (1 credit)
- CHEM 3507 Analytical Chemistry (3 credits)
- CHEM 3570 Analytical Chemistry Laboratory (1 credit)
- CRJS 1120 Criminal Justice and Society (4 credits)

## Chemistry Courses

**CHEM 1100 Consumer Chemistry (3 credits)**
Chemistry as viewed through illustrations taken from common substances, objects, and processes in the world around us. Topics range from table salt to perception-altering drugs, and from drinking water to nuclear power. Intended for nonscience majors. Liberal Education Goal Area 3.

**CHEM 1110 Chemistry for Allied Health (3 credits)**
Survey of concepts in general and organic chemistry and biochemistry. Laboratory component introduces techniques, methods, and instrumentation. Intended for students majoring in Nursing and other allied health disciplines.

**CHEM 1111 General Chemistry I (4 credits)**
A survey of chemistry covering basic concepts including inorganic, organic, and biochemistry. The laboratory component introduces techniques, methods, and instrumentation. Liberal Education Goal Area 3 (LC). If on-campus student must register for CHEM 1111 (Lecture) and CHEM 1171 (Lab).

**CHEM 1112 General Chemistry II (4 credits)**
A continuation of the survey begun in chemistry 1111 covering basic concepts of inorganic, organic, and biochemistry. The laboratory component introduces techniques, methods, and instrumentation. Prerequisite: CHEM 1111 or CHEM 2211. Liberal Education Goal Area (LC).

**CHEM 1921 Directed Group Study (3 credits)**
Arranged group study.

**CHEM 2130 Chemistry of Drugs (3 credits)**
Introduction to the pharmacology of the more common drugs and toxic substances.

**CHEM 2210 Criminalistics (3 credits)**
Introduction to the theory and practice of physical evidence analysis. Topics include firearms, fingerprints, hairs and fibers, numbers restoration, shoeprints, arson, and paints. Prerequisites: CHEM 1111 or CHEM 2211.

**CHEM 2211 Principles of Chemistry I (4 credits)**
Principles of inorganic, physical, solution, and gas phase chemistry. The laboratory component introduces techniques, methods, and instrumentation. Intended for chemistry majors and minors, biology majors, preprofessional students, and open to any student meeting the prerequisites wishing to fulfill their Liberal Education requirement. Liberal Education Goal Area 3 (LC). If on-campus student must register for CHEM 2211 (Lecture) and CHEM 2271(Lab).

**CHEM 2212 Principles of Chemistry II (4 credits)**
Continuation of the development of principles of inorganic, physical, solution, and gas phase chemistry begun in CHEM 1211. The laboratory component introduces techniques, methods, and instrumentation. Intended for chemistry majors and minors, biology majors, preprofessional students, and open to any student meeting the prerequisites wishing to fulfill their Liberal Education requirement. Prerequisite: CHEM 1111 or CHEM 2211. Liberal Education Goal Area 3 (LC). Student must register for CHEM 2212 (Lecture) and CHEM 2272 (Lab).

**CHEM 2270 Criminalistics Laboratory (1 credit)**
Introduction to the analyses performed in forensic chemistry. Corequisite: CHEM 2210.

**CHEM 2925 People and the Environment: Chemistry Perspective (3 credits)**
A study of the chemical processes important in maintaining a clean environment. Liberal Education Goal Area 10.

**CHEM 3100 Journal Club (1 credit)**
Oral and written presentations of special topics in chemistry. May be repeated with 2 semester credits allowed toward chemistry major. Prerequisite: CHEM 3312.

**CHEM 3110 Laboratory Management and Safety (2 credits)**
Laboratory management concepts, safety information concerning chemical substances. Prerequisite: Junior or Senior standing.

**CHEM 3140 Chemical Toxicology (3 credits)**
Chemical principles in toxicology. Design of environmentally safer chemicals; quantitative analysis of the toxicity of various molecules. Prerequisite: CHEM 3311.

**CHEM 3150 Standard Methods of Water Analysis (3 credits)**
Introduction to techniques of analysis of natural and effluent water samples using standard analytical techniques. Prerequisite: CHEM 1112 or CHEM 2212.

**CHEM 3210 Interpretation of Spectral Data (2 credits)**
Systematic identification of chemical structures utilizing data from mass spectrometry, infrared spectroscopy, and nuclear magnetic resonance spectroscopy. Prerequisites: CHEM 3312 or CHEM 3372 (may be co-requisite).

**CHEM 3311 Organic Chemistry I (3 credits)**
A study of the properties of aliphatic and aromatic compounds and the theories and mechanisms to account for those properties. Prerequisite: CHEM 1112 or CHEM 2212.

**CHEM 3312 Organic Chemistry II (3 credits)**
Continuation of study of the properties of functional groups and the theories and mechanisms to account for those properties. Prerequisite: CHEM 3311.

**CHEM 3371 Organic Chemistry Laboratory I (1 credit)**
Laboratory study of the reactions of organic compounds. Prerequisites: CHEM 1112 or CHEM 2212; Corequisite CHEM 3311.

**CHEM 3372 Organic Chemistry Laboratory II (1 credit)**
Laboratory study of the reactions of organic compounds. Prerequisite: CHEM 3371; Corequisite CHEM 3312.

**CHEM 3507 Analytical Chemistry (3 credits)**
A study of equilibrium processes and the experimental methods and instruments used for quantitative analysis of samples. Prerequisite: CHEM 1112 or CHEM 2212.

**CHEM 3570 Analytical Chemistry Laboratory (1 credit)**
Laboratory applications of analytical instrumentation to chemical analysis. Prerequisites: CHEM 1112 or CHEM 2212, CHEM 3507 (may be corequisite).

**CHEM 3970 Internship (3 credits)**
Graded Satisfactory/Unsatisfactory only. Student internships may be either full-time or part-time in a public or private agency appropriate to the degree objective. Internships consist of closely supervised periods of service that are arranged in advance of the course registration. Students should consult their advisor concerning prerequisites.

**CHEM 3980 Research (1 credit)**
Research carried out by the student that is based on appropriate methodology and scholarship.

**CHEM 4101 Environmental Chemistry (3 credits)**
Intensive study of biogeochemical cycles of natural and man-made pollutants including transformations, transport, fate and persistence mechanisms. Environmental effects, long-term impacts, and methods of treatment/prevention are discussed. Prerequisites: CHEM 1112 or CHEM 2212 or consent of instructor.

**CHEM 4102 Environmental Chemistry II (3 credits)**
Study of processes affecting behavior and fate of anthroprogenic and natural compounds in the atmosphere, soils, and water. Colloidal and surface phenomena, nanoprocesses, redox reactions, speciation, solubility, and complexation. Prerequisite: CHEM/ENVR 4101; GEOL 1110; and ENVR 2000 or consent of instructor.

**CHEM 4320 Special Topics in Organic Chemistry (1-3 credits)**
Role of drug structure in drug-receptor interaction, absorption, distribution, metabolism, and toxicity. Emphasis placed on organic chemistry principles vital to drug design. Concepts illustrated with case studies and clinically relevant drugs.

**CHEM 4411 Biochemistry I (3 credits)**
Chemical principles governing metabolic functions and genetics. Prerequisites: CHEM 3312 or consent of instructor.

**CHEM 4412 Biochemistry II (3 credits)**
Continuation of CHEM 3411. Chemical principles governing metabolic functions and genetic materials. Prerequisite: CHEM 4411.

**CHEM 4420 Special Topics in Biochemistry (1-3 credits)**
Selected topics such as carbohydrates, lipids, proteins, enzymology, nucleic acids, metabolism, toxicology, and biochemical lab techniques. May be repeated when topic is changed. Prerequisite: CHEM 3312. Might not be offered every year.

**CHEM 4471 Biochemistry Laboratory I (1 credit)**
Laboratory techniques pertaining to biochemistry. Prerequisites: CHEM 3312 and CHEM 3372, Corequisite: CHEM 4411.

**CHEM 4472 Biochemistry Laboratory II (1 credit)**
Continuation of laboratory techniques pertaining to biochemistry. Prerequisites: CHEM 4411; Corequisite: CHEM 4412.

**CHEM 4510 Instrumental Methods of Analysis (3 credits)**
Theory and applications of instrumental methods of chemical analysis. Prerequisite: CHEM 3507 and CHEM 3570.

**CHEM 4520 Special Topics in Analytical Chemistry (1-3 credits)**
Selected topics such as mass spectrometry, NMR, electrochemistry, chemical separations, and computerized instrument interfaces. Prerequisite: CHEM 3507. Might not be offered every year.

**CHEM 4571 Instrumental Analysis Laboratory I (1 credit)**
Experimental applications of instrumental methods of chemical analysis. Corequisite: CHEM 4510.

**CHEM 4572 Instrumental Analysis Laboratory II (1 credit)**
Continuation of CHEM 4571. Experimental applications of instrumental methods of chemical analysis. Prerequisite: CHEM 4510.

**CHEM 4711 Physical Chemistry I (3 credits)**
Fundamental understanding of chemical and physical properties of atoms and molecules through quantum mechanical and classical approaches. Prerequisites: CHEM 2212 and PHYS 2101.

**CHEM 4712 Physical Chemistry II (3 credits)**
Fundamental understanding of chemical and physical properties of atoms and molecules through quantum mechanical and classical approaches. Prerequisites: CHEM 4711 or consent of instructor.

**CHEM 4720 Special Topics in Physical Chemistry (1-3 credits)**
Selected topics such as kinetics, thermodynamics, quantum chemistry, and molecular modeling. Prerequisite: CHEM 3312. Might not be offered every year.

**CHEM 4771 Physical Chemistry Laboratory I (1 credit)**
Physical chemistry laboratory applications. Prerequisites: CHEM 3570; Corequisite: CHEM 4711.

**CHEM 4772 Physical Chemistry Laboratory II (1 credit)**
Physical chemistry laboratory applications. Continuation of 3771. Prerequisites: CHEM 3570; Corequisite: CHEM 4712.

**CHEM 4811 Advanced Inorganic Chemistry I (3 credits)**
Theoretical approach to the principles of inorganic chemistry. Integration of theory and descriptive chemistry. Corequisite: CHEM 3312.

**CHEM 4812 Advanced Inorganic Chemistry II (3 credits)**
Continuation of the study of the theoretical approaches to the principles of inorganic chemistry. Prerequisite: CHEM 4712 and CHEM 4811.

**CHEM 4820 Special Topics in Inorganic Chemistry (1-3 credits)**
Selected topics such as organometallics, catalysis, bioinorganic chemistry, and materials chemistry. Prerequisite: CHEM 3312. Might not be offered every year.

**CHEM 4871 Inorganic Chemistry Laboratory I (1 credit)**
Laboratory oriented approach emphasizing techniques and theories of preparative inorganic chemistry. Prerequisite: CHEM 4711.

**CHEM 4872 Inorganic Chemistry Laboratory II (1 credit)**
Laboratory oriented approach emphasizing techniques and theories of preparative inorganic chemistry. Prerequisite: CHEM 4871.

**CHEM 4970 Internship (3-4 credits)**
Graded Satisfactory/Unsatisfactory only. Student internships may be either full-time or part-time in a public or private agency appropriate to the degree objective. Internships consist of closely supervised periods of service that are arranged in advance of the course registration. Students should consult their advisor concerning prerequisites.

**CHEM 4980 Research (3 credits)**
Research carried out by the student that is based on appropriate methodology and scholarship.

## All-University Courses

The course numbers listed below, not always included in the semester class schedule, may be registered for by consent of the advisor, instructor, or department chair, or may be assigned by the department when warranted. Individual registration requires previous arrangement by the student and the completion of any required form or planning outline as well as any prerequisites.

1910, 2910, 3910, 4910 DIRECTED INDEPENDENT STUDY
1920, 2920, 3920, 4920 DIRECTED GROUP STUDY
1930, 2930, 3930, 4930 EXPERIMENTAL COURSE
1940, 2940, 3940, 4940 IN-SERVICE COURSE
1950, 2950, 3950, 4950 WORKSHOP, INSTITUTE, TOUR
1960, 2960, 3960, 4960 SPECIAL PURPOSE INSTRUCTION
1970, 2970, 3970, 4970 INTERNSHIP
1980, 2980, 3980, 4980 RESEARCH
1990, 2990, 3990, 4990 THESIS

# Computer Science

The study of computer science involves becoming a top-notch problem solver. The solutions computer scientists focus on are processes for solving problems. These processes are expressed using the language of algorithms. Ultimately, the solution is programmed into a computer.

Because of their flexibility, computers are integral to most research and are indispensable in most professional careers. In education they are used for instruction, for learning, and for efficiency. In industry they are revolutionizing businesses, and in science they allow us to simulate a Jupiter fly-by, to design the next generation air-bus, and to investigate the effects of pollutants on the environment.

Computer Science majors learn to look at complex situations, identify patterns, and develop processes that take advantage of those patterns in order to solve a problem or improve an approach to a problem. Computer Science majors learn how to solve problems from a wide variety of domains. Working in teams, students learn to transform their solutions into algorithms and implement programs for a broad range of software systems. Majors in Computer Information Systems, a program offered jointly with Business Administration, study problem solving and software development for automating business processes.

**Programs**

- Computer Information Systems, B.S. *major*
- Computer Science, B.S. *major*
- Computer Science *minor*

**Career Directions**

*Computer Science*

3D Graphics Programmer
Analyst
Application Developer
Artificial Intelligence Engineer
Automation Engineer
Consultant
Design Engineer
Documentation Tools Specialist
Game Programmer
Interface Designer
Issue Associate
IT Development Program Associate
Patent Examiner
Quantum Computing Researcher
Research Assistant
Software Developer
Software Engineer
Usability Consultant
User Interface Coordinator
Web Developer
Web Experience Developer
Also: Graduate Study

*Computer Information Systems*

Application Programmer
Business Consultant
Business Development Associate
Computer Operations Manager
Database Administrator
Finance Analyst
Information Center Specialist
Programmer/Analyst
Software Engineer
Systems Analyst
Also: Graduate Study

**Preparation**

*Recommended High School Courses*

Algebra
Geometry
Trigonometry
Calculus
Computer Science
Physical Sciences
Public Speaking
Interpersonal Communication

## Computer Information Systems, B.S. *major*

Required Credits: 75
Required GPA: 2.25

**I REQUIRED BASIC CORE COURSES**

COMPLETE THE FOLLOWING COURSES:

- ACCT 1101 Principles of Accounting I (3 credits)
- ACCT 1102 Principles of Accounting II (3 credits)
- BUAD 2220 Legal Environment (3 credits)
- BUAD 2231 Business Statistics I (3 credits)
  *or* STAT 2610 Applied Statistics (4 credits)
- BUAD 2280 Computer Business Applications (3 credits)
- BUAD 3223 Operations Management (3 credits)
- BUAD 3351 Management (3 credits)
- BUAD 3361 Marketing (3 credits)
- BUAD 3381 Management Information Systems (3 credits)

- BUAD 3771 Financial Management (3 credits)
- BUAD 4559 Strategic Management (3 credits)
- BUAD 4600 Senior Seminar: Business Administration (1 credit)
- ECON 2000 Markets and Resource Allocation (3 credits)
- ECON 2100 Macroeconomics and the Business Cycle (3 credits)
- MATH 2210 Discrete Mathematics (4 credits)

**II ADDITIONAL REQUIRED COURSES**

COMPLETE THE FOLLOWING COURSE(S):

- CS 1309 Problem Solving and Computation (3 credits)
  *or*
  CS 1107 Introduction to Computers (3 credits)
  and CS 1108 Introduction to Computers II (3 credits)

COMPLETE THE FOLLOWING COURSES:

- BUAD 3382 Business Application Development (3 credits)
- BUAD 3384 Systems Analysis and Design (3 credits)
- BUAD 4385 Data Modeling and Design (3 credits)
- CS 2321 Computer Science I (4 credits)
- CS 2322 Computer Science II (4 credits)
- CS 4390 Social, Ethical, and Professional Issues in Computing (2 credits)

**III REQUIRED ELECTIVES**

SELECT THREE OF THE FOLLOWING: At least TWO courses must be from Group B

GROUP A.

- BUAD 3281 Decision Support Systems (3 credits)
- BUAD 3283 E-Commerce Web Development (3 credits)
- BUAD 3383 Data Communications (3 credits)
- BUAD 4386 Applied Software Development Project (3 credits)
- BUAD 4387 Strategic Information Management (3 credits)
  May include 3 credits of
- BUAD 4970 Internship (1-12 credits)

GROUP B.

- CS 2270 Introduction to Web Programming (3 credits)
- CS 3270 Advanced Web Programming (3 credits)
- CS 3350 Event-Driven Programming in a Windows Environment (3 credits)
- CS 3360 Object-Oriented Software Development (3 credits)
- CS 3370 Mobile Application Development (3 credits)
- CS 3380 Game Development (3 credits)
- CS 3507 Introduction to Databases (3 credits)
- CS 3528 Data Structures and Algorithms (4 credits)
- CS 3560 Data Communications and Networks (3 credits)
- CS 3718 Computer Graphics (3 credits)
- CS 4360 Software Engineering (3 credits)
- CS 4970 Internship (3 credits)

**SUGGESTED SEMESTER SCHEDULE FOR COMPUTER INFORMATION SYSTEMS, B.S. MAJOR**

The following is a list of required CIS courses arranged by year. This schedule is intended to help students plan their courses in an orderly fashion; however, these are only suggestions.

Freshman

- College Writing courses
- Science or Mathematics courses
- Liberal Education courses

Sophomore

- ACCT 1101 Principles of Accounting I (3 credits)
- ACCT 1102 Principles of Accounting II (3 credits)
- BUAD 2231 Business Statistics I (3 credits)
  or STAT 2610 Applied Statistics (4 credits)
- BUAD 2220 Legal Environment (3 credits)
- BUAD 2280 Computer Business Applications (3 credits)
- CS 1309 Problem Solving and Computation (3 credits)
  or
  CS 1107 Introduction to Computers (3 credits)
  and CS 1108 Introduction to Computers II (3 credits)
- ECON 2000 Markets and Resource Allocation (3 credits)
- ECON 2100 Macroeconomics and the Business Cycle (3 credits)
- MATH 2210 Discrete Mathematics (4 credits)
- Science or Mathematics courses
- Liberal Education courses

Junior

- BUAD 3223 Operations Management (3 credits)
- BUAD 3351 Management (3 credits)
- BUAD 3361 Marketing (3 credits)
- BUAD 3381 Management Information Systems (3 credits)
- BUAD 3382 Business Application Development (3 credits)
- BUAD 3771 Financial Management (3 credits)
- CS 2321 Computer Science I (4 credits)
- CS 2322 Computer Science II (4 credits)
- Computer Information Systems electives

Senior

- BUAD 3384 Systems Analysis and Design (3 credits)
- BUAD 4385 Data Modeling and Design (3 credits)
- BUAD 4387 Strategic Information Management (3 credits)
- BUAD 4559 Strategic Management (3 credits)
- BUAD 4600 Senior Seminar: Business Administration (1 credit)
- CS 4390 Social, Ethical, and Professional Issues in Computing (2 credits)
- Computer Information Systems electives
- Liberal Education courses

## Computer Science, B.S. *major*

Required Credits: 60
Required GPA: 2.25

**I REQUIRED CORE COURSES**

COMPLETE THE FOLLOWING COURSE:

- CS 1309 Problem Solving and Computation (3 credits)
  *or*
  CS 1107 Introduction to Computers (3 credits)
  and CS 1108 Introduction to Computers II (3 credits)

COMPLETE THE FOLLOWING COURSES:

- CS 2321 Computer Science I (4 credits)
- CS 2322 Computer Science II (4 credits)
- CS 2810 Computer Organization and Assembly Language Programming (3 credits)

- CS 3528 Data Structures and Algorithms (4 credits)
- CS 4390 Social, Ethical, and Professional Issues in Computing (2 credits)

**II REQUIRED ELECTIVES**

Select 21 credits from among the following courses, with at least 3 courses from Section A and 3 courses from Section B. Note: Courses may have prerequisites either not included or not required in this major.

A. Core Computer Science

- CS 3507 Introduction to Databases (3 credits)
- CS 3560 Data Communications and Networks (3 credits)
- CS 3718 Computer Graphics (3 credits)
- CS 4298 Compiler Construction (3 credits)
- CS 4627 Theory of Computation (3 credits)
- CS 4840 Operating Systems (3 credits)
- MATH 3720 Numerical Methods (3 credits)

B. Application Development Techniques

- CS 3270 Advanced Web Programming (3 credits)
- CS 3350 Event-Driven Programming in a Windows Environment (3 credits)
- CS 3360 Object-Oriented Software Development (3 credits)
- CS 3370 Mobile Application Development (3 credits)
- CS 3380 Game Development (3 credits)
- CS 4360 Software Engineering (3 credits)

**III REQUIRED OUTSIDE COURSES**

- MATH 1470 Precalculus (5 credits)
  *or* MATH 2471 Calculus I (5 credits)
- MATH 2210 Discrete Mathematics (4 credits)
- MATH 3310 Linear Algebra (4 credits)
  *or* STAT 2610 Applied Statistics (4 credits)
  *or* STAT 3631 Probability and Statistics I (4 credits)
- SPCM 1100 Public Speaking (3 credits)

Select one of the following courses:

- ENGL 2150 Technical Writing (3 credits)
- ENGL 3150 Writing In The Disciplines (3 credits)
- ENGL 3155 Professional Writing (3 credits)

**Suggested Semester Schedule for Computer Science B.S. major**

The following schedule identifies only courses that apply to the Computer Science major. Students should expect to complete most liberal education requirements in their first three years. To complete requirements for graduation in four years (8 semesters), a Computer Science major must take CS 1309 in one of the first two semesters or take CS 1107 in their first semester and CS 1108 in their second semester.

Freshman

- CS 1309 Problem Solving and Computation (3 credits)
  or
  CS 1107 Introduction to Computers (3 credits)
  and CS 1108 Introduction to Computers II (3 credits)
- CS 2321 Computer Science I (4 credits)
- #MATH 1170 College Algebra (4 credits)
- MATH 1470 Precalculus (5 credits)
  or MATH 2471 Calculus I (5 credits)
- SPCM 1100 Public Speaking (3 credits)

Sophomore

- CS 2322 Computer Science II (4 credits)
- CS 2810 Computer Organization and Assembly Language Programming (3 credits)
- MATH 2210 Discrete Mathematics (4 credits)
- MATH 3310 Linear Algebra (4 credits)
  or STAT 2610 Applied Statistics (4 credits)
  or STAT 3631 Probability and Statistics I (4 credits)
- +ENGL 2150 Technical Writing (3 credits)

Junior

- CS 3528 Data Structures and Algorithms (4 credits)
- Computer Science electives

Senior

- CS 4390 Social, Ethical, and Professional Issues in Computing (2 credits)
- Computer Science electives

# Mathematics requirements for the Computer Science major begin with MATH 1470 Precalculus, but some students will be initially placed into MATH 1170 College Algebra.
+ May be any of the following courses: ENGL 2150, ENGL 3150, ENGL 3155.

## Computer Science *minor*

Required Credits: 15-20
Required GPA: 2.00

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COMPUTER SCIENCE MINOR REQUIREMENTS WEB EMPHASIS: MUST COMPLETE ALL AREAS WITH A TOTAL OF AT LEAST 15 SEMESTER CREDITS AND A 2.00 GPA

I REQUIRED COURSES

COMPLETE THE FOLLOWING COURSE:

- CS 1309 Problem Solving and Computation (3 credits)
  *or*
  CS 1107 Introduction to Computers (3 credits)
  and CS 1108 Introduction to Computers II (3 credits)

II REQUIRED EMPHASIS-WEB EMPHASIS

COMPLETE THE FOLLOWING COURSES:

- CS 2270 Introduction to Web Programming (3 credits)
- CS 3270 Advanced Web Programming (3 credits)

SELECT 6 SEMESTER CREDITS FROM THE FOLLOWING COURSES:

- CS 2321 Computer Science I (4 credits)
- CS 2322 Computer Science II (4 credits)
- CS 2810 Computer Organization and Assembly Language Programming (3 credits)
- CS 3370 Mobile Application Development (3 credits)
- CS 4390 Social, Ethical, and Professional Issues in Computing (2 credits)

*MAY INCLUDE 1:*

- GEOG 4275 Advanced Geographic Information Systems (3 credits)
  *or* ENGL 3179 Elements of Electronic Rhetoric (3 credits)
  *or* TADD 3549 Digital Media/Interactive (4 credits)

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COMPUTER SCIENCE MINOR REQUIREMENTS PROFESSIONAL EMPHASIS:
MUST COMPLETE ALL AREAS WITH A TOTAL OF AT LEAST 20 SEMESTER CREDITS AND A 2.00 GPA

I REQUIRED COURSES

COMPLETE THE FOLLOWING COURSE:

- CS 1309 Problem Solving and Computation (3 credits)
  *or* CS 1107 Introduction to Computers (3 credits)
  and CS 1108 Introduction to Computers II (3 credits)

II REQUIRED EMPHASIS-PROFESSIONAL EMPHASIS

COMPLETE THE FOLLOWING COURSES:

- CS 2321 Computer Science I (4 credits)
- CS 2322 Computer Science II (4 credits)

SELECT 9 SEMESTER CREDITS FROM THE FOLLOWING COURSES:

- CS 2810 Computer Organization and Assembly Language Programming (3 credits)
- PHYS 2500 Electronics I (4 credits)
- Computer Science courses at the 3000 and 4000 levels

## Computer Science Courses

**CS 1107 Introduction to Computers (3 credits)**
An examination of the development of computing devices, modern computing practices, components of a computing system, common application software, and uses of computers in society. No previous experience with computers is assumed. Note: This course is not intended for Computer Science majors or minors. Liberal Education Goal Area 9.

**CS 1108 Introduction to Computers II (3 credits)**
Introduces computer applications, robotics, and animated programming to the general student population, especially those seeking a better understanding of technology applications. Involves students using the university's technology and computing facilities as well as their own computers. Provides the conceptual framework from which further study of computer applications and computing may be initiated. Prerequisite: CS 1107 or equivalent or consent of instructor.

**CS 1309 Problem Solving and Computation (3 credits)**
Introduction to general problem-solving techniques applicable to solving problems in computing, including elementary computational problems. Other techniques include using systematic lists, using diagrams, and looking for patterns. Includes fundamental computational concepts in information representation, computer organization, and social and ethical issues in computing. The two-hour lab introduces the use of software to solve a variety of problems. The prospective student should have a general understanding of computers and their operation. Prerequisite: Successful completion of MATH 0800 with a grade of B or better, or three years of high school mathematics (including two years of algebra) and a score on the Mathematics Placement Test appropriate for placement into MATH 1170. Liberal Education Goal Area 4

**CS 2270 Introduction to Web Programming (3 credits)**
This course expands on basic knowledge of markup languages and web programming languages. Students learn how to use current web markup languages, aspects of various transfer protocols, and client-side scripting languages. All of these topics support the development of both web pages and web sites. Prerequisite: CS 1309 or (CS 1107 and CS 1108).

**CS 2321 Computer Science I (4 credits)**
Introduction to the basic principles of software development using a modern high-level language, including using selection, looping, function calls, and recursion, along with simple data structures such as arrays and objects, to solve problems. Includes an introduction to software engineering techniques such as interactive debugging, software testing, and methods of software validation. Includes a two-hour lab. Prerequisite: CS 1107 and CS 1108, or CS 1309; MATH 1170 or MATH 1470 or higher.

**CS 2322 Computer Science II (4 credits)**
Topics include pointers, dynamic allocation, recursion, and structured data types such as objects, strings, lists, stacks, queues, templates, containers, binary trees, and hash tables. Also includes a group-oriented software design and implementation project. Includes a two-hour lab. Prerequisite: CS 2321.

**CS 2810 Computer Organization and Assembly Language Programming (3 credits)**
An introduction to the register level architecture of a modern computer and programming with an assembly language for that processor. Includes a two-hour lab. Prerequisite or Corequisite: CS 2322.

**CS 3270 Advanced Web Programming (3 credits)**
This course builds on topics from CS 2270. Students learn server-side scripting, database connectivity, and dynamic web-page updating. Web development frameworks are also studied. Prerequisite: CS 2270.

**CS 3350 Event-Driven Programming in a Windows Environment (3 credits)**
Uses a language suitable for creating event-driven programs while focusing on methodology suitable for developing event handlers in windows-oriented programs. Prerequisite: CS 2322 or equivalent.

**CS 3360 Object-Oriented Software Development (3 credits)**
Techniques used in object-oriented software development. Key components of these techniques include design patterns, abstraction, encapsulation, modularity, message passing, polymorphism, inheritance, and incremental software development. Students translate a design into software using an object-oriented programming language. Additional topics may include applets, markup languages, multi-threaded programming, and rudimentary network programming. Prerequisite: CS 2322 or equivalent. May not be offered every year.

**CS 3370 Mobile Application Development (3 credits)**
An overview of how to develop interactive applications for a variety of mobile devices using popular mobile application development platforms such as the iPhone and Android SDKs. Examines the specific requirements for mobile systems. Emphasizes how the requirements in mobile application development link to other core areas in computing. May not be offered every year. Prerequisite: CS 2270.

**CS 3380 Game Development (3 credits)**
An overview of how to develop interactive games. Essential aspects of interactive fiction, sprites, animation, audio, graphics, physics, threading, scripting, and event handling in the context of game development. Students develop a game in a group. Prerequisite: CS 2322. Might not be offered every year.

**CS 3507 Introduction to Databases (3 credits)**
Provides an introduction to the theory and use of modern database systems, with particular focus on SQL, the relational data model, and relational database design. Prerequisite: CS 2322. May not be offered every year.

**CS 3528 Data Structures and Algorithms (4 credits)**
Study of advanced abstract information storage structures, including priority queues, binary trees, generalized trees, and graphs. Study of algorithm development techniques, including divide and conquer, greedy algorithms, and dynamic programming. Includes learning a programming language not used in CS 2321 and CS 2322. Prerequisites: CS 2322 and MATH 2210 or consent of the instructor.

**CS 3560 Data Communications and Networks (3 credits)**
Principles of data communications as applied to modern computer networks. Prerequisite: CS 2810. May not be offered every year.

**CS 3718 Computer Graphics (3 credits)**
Fundamental concepts of computer graphics with emphasis on understanding underlying principles. Topics include line and curve drawing, windowing, clipping, shading, geometric transformations and 3-dimensional viewing. Prerequisites: CS 2322 and MATH 2471. May not be offered every year.

**CS 3931 Experimental Course (3 credits)**
A course proposed for inclusion in the University curriculum. May not be offered more than two times as an experimental course.

**CS 4298 Compiler Construction (3 credits)**
The theory, design, and construction of a compiler. Prerequisite: CS 3528. May not be offered every year.

**CS 4360 Software Engineering (3 credits)**
Software Engineering (SE) provides students with a capstone experience that integrates the theory and practice of SE. SE investigates a variety of SE models and guidelines used in industry, culminating in the design, specification and implementation of a software project of real-world import. Includes a two-hour lab. Prerequisites: CS 2810 and CS 3528.

**CS 4390 Social, Ethical, and Professional Issues in Computing (2 credits)**
Features topics related to standards for computing professionals. Prerequisites: At least one CS course numbered 3000 or higher. Might not be offered every year.

**CS 4627 Theory of Computation (3 credits)**
Explores the theoretic roots and limits of computing. Prerequisites: CS 2322 and MATH 2210.

**CS 4840 Operating Systems (3 credits)**
Fundamentals of operating system design with emphasis on at least one modern operating system. Topics include scheduling, memory management, paging, file management, and mutual exclusion. Required work will include programming investigations. Prerequisites: CS 2810 and CS 3528.

**CS 4910 Directed Independent Study (3 credits)**
Arranged individual study.

**CS 4970 Internship (3 credits)**
Graded Satisfactory/Unsatisfactory only. Student internships may be either full-time or part-time in a public or private agency appropriate to the degree objective. Internships consist of closely supervised periods of service that are arranged in advance of the course registration. Students should consult their advisor concerning prerequisites.

## All-University Courses

The course numbers listed below, not always included in the semester class schedule, may be registered for by consent of the advisor, instructor, or department chair, or may be assigned by the department when warranted. Individual registration requires previous arrangement by the student and the completion of any required form or planning outline as well as any prerequisites.

1910, 2910, 3910, 4910 DIRECTED INDEPENDENT STUDY
1920, 2920, 3920, 4920 DIRECTED GROUP STUDY
1930, 2930, 3930, 4930 EXPERIMENTAL COURSE
1940, 2940, 3940, 4940 IN-SERVICE COURSE
1950, 2950, 3950, 4950 WORKSHOP, INSTITUTE, TOUR
1960, 2960, 3960, 4960 SPECIAL PURPOSE INSTRUCTION
1970, 2970, 3970, 4970 INTERNSHIP
1980, 2980, 3980, 4980 RESEARCH
1990, 2990, 3990, 4990 THESIS

# Criminal Justice

The Criminal Justice major provides students with knowledge about the nature and causes of crime and delinquency, law and the legal system for juveniles and adults in American society, and the decision-making processes of criminal justice agencies. The purpose of a Criminal Justice major within a liberal arts framework is to develop the knowledge, values, and ethical consciousness that are essential for becoming successful managers and leaders in criminal justice and related human service vocations.

The Bachelor of Science degree in Criminal Justice is a generalist degree preparing students for careers in law enforcement, corrections, and other public and private agencies concerned with the prevention and investigation of crime. The program allows majors to choose one of four areas of specialization within the discipline that best prepares them for their career choice. This preparation includes a combination of course work, internships, and special research projects. Students considering this major are encouraged to develop a proficiency in writing. The degree is also appropriate for students who choose to pursue advanced study in criminal justice or law.

Completion of the Criminal Justice degree at Bemidji State University satisfies the Minnesota Peace Officer Standards and Training Board (POST) academic requirements.

**Programs**

- Criminal Justice, B.S. *major*
- Criminal Justice *minor*

**Career Directions**

Asset Protection
Corrections
Court Administration
Customs Inspection
Federal Bureau of Investigation (FBI)
Law Enforcement
Lawyer
Parole Officer
Private Security Services
Probation Officer
Also: Graduate Study

**Preparation**

*Recommended High School Courses*
English

Government

Psychology

Social Science

## Criminal Justice, B.S. *major*

Required Credits: 66
Required GPA: 2.25

**I REQUIRED CORE COURSES**

COMPLETE THE FOLLOWING COURSES:

- CRJS 1120 Criminal Justice and Society (4 credits)
- CRJS 3201 Research Methods and Statistics for Criminal Justice (4 credits)
- CRJS 3304 Police Process (4 credits)
- CRJS 3305 Judicial Process (4 credits)
- CRJS 3306 Correctional Process (4 credits)
- CRJS 3358 Criminal Law (4 credits)

COMPLETE 4 SEMESTER CREDITS FROM THE FOLLOWING COURSE:

- CRJS 4920 Directed Group Study (4 credits)

II REQUIRED TRACK Select 1 of the following tracks A. Law Enforcement with Internship B. Corrections with Internship C. Criminal Justice with Internship D. Criminal Justice (non-internship) All tracks will display until a specific track(s) is declared. To declare a track, contact the Records Office.

**A. LAW ENFORCEMENT WITH INTERNSHIP**

A. Law Enforcement with Internship
COMPLETE THE FOLLOWING COURSES:

- CRJS 3315 Criminology and Delinquency (4 credits)
- CRJS 3359 Criminal Investigation (4 credits)
- CRJS 3360 Criminal Procedure and Evidence (4 credits)
- CRJS 4103 Criminal Justice Diversity (3 credits)
- CRJS 4480 Police and Community Relations (4 credits)

COMPLETE 12 CREDITS IN THE FOLLOWING COURSE:

- CRJS 4970 Internship (12 credits)

REQUIRED ELECTIVES
COMPLETE 7 SEMESTER CREDITS:

- CHEM 2210 Criminalistics (3 credits)
- CHEM 2270 Criminalistics Laboratory (1 credit)
- CRJS 1000 The American Legal System (3 credits)
- CRJS 2200 Systems Dynamics (3 credits)
- CRJS 2221 Comparative Justice (3 credits)
- CRJS 3310 Introduction to Emergency Management (3 credits)
- CRJS 3319 Topics In Criminal Justice (1-2 credits)
- CRJS 3334 Criminal Justice Planning (3 credits)
- CRJS 3344 Criminal Justice and Domestic Violence (3 credits)
- CRJS 3351 Criminal Profiling (3 credits)
- CRJS 3355 Drugs and Criminal Justice (3 credits)
- CRJS 3356 Introduction to Homeland Security (4 credits)
- CRJS 3357 Applied Civil Law (3 credits)
- CRJS 3359 Criminal Investigation (4 credits)
- CRJS 3360 Criminal Procedure and Evidence (4 credits)
- CRJS 3380 Community Corrections (3 credits)
- CRJS 4103 Criminal Justice Diversity (3 credits)
- CRJS 4420 Legal Aspects of Corrections (3 credits)
- CRJS 4480 Police and Community Relations (4 credits)
- CRJS 4487 Offender Intervention (3 credits)
- HLTH 3600 Emergency Response (3 credits)
- INST 1107 Introduction to Turtle Island (3 credits)

- SOC 2230 Race and Ethnic Relations (3 credits)

**B. CORRECTIONS WITH INTERNSHIP**

B. Corrections with Internship
COMPLETE THE FOLLOWING COURSES:

- CRJS 3315 Criminology and Delinquency (4 credits)
- CRJS 3360 Criminal Procedure and Evidence (4 credits)
- CRJS 3380 Community Corrections (3 credits)
- CRJS 4103 Criminal Justice Diversity (3 credits)
- CRJS 4420 Legal Aspects of Corrections (3 credits)
- CRJS 4480 Police and Community Relations (4 credits)

COMPLETE 12 CREDITS IN THE FOLLOWING COURSE:

- CRJS 4970 Internship (12 credits)

REQUIRED ELECTIVES
COMPLETE 5 SEMESTER CREDITS:

- CHEM 2210 Criminalistics (3 credits)
- CHEM 2270 Criminalistics Laboratory (1 credit)
- CRJS 1000 The American Legal System (3 credits)
- CRJS 2200 Systems Dynamics (3 credits)
- CRJS 2221 Comparative Justice (3 credits)
- CRJS 3310 Introduction to Emergency Management (3 credits)
- CRJS 3319 Topics In Criminal Justice (1-2 credits)
- CRJS 3334 Criminal Justice Planning (3 credits)
- CRJS 3344 Criminal Justice and Domestic Violence (3 credits)
- CRJS 3351 Criminal Profiling (3 credits)
- CRJS 3355 Drugs and Criminal Justice (3 credits)
- CRJS 3356 Introduction to Homeland Security (4 credits)
- CRJS 3357 Applied Civil Law (3 credits)
- CRJS 3359 Criminal Investigation (4 credits)
- CRJS 3360 Criminal Procedure and Evidence (4 credits)
- CRJS 3380 Community Corrections (3 credits)
- CRJS 4103 Criminal Justice Diversity (3 credits)
- CRJS 4420 Legal Aspects of Corrections (3 credits)
- CRJS 4480 Police and Community Relations (4 credits)
- CRJS 4487 Offender Intervention (3 credits)
- HLTH 3600 Emergency Response (3 credits)
- INST 1107 Introduction to Turtle Island (3 credits)
- SOC 2230 Race and Ethnic Relations (3 credits)

**C. CRIMINAL JUSTICE WITH INTERNSHIP**

C. Criminal Justice with Internship
COMPLETE THE FOLLOWING COURSES:

- CRJS 2200 Systems Dynamics (3 credits)
- CRJS 3315 Criminology and Delinquency (4 credits)
- CRJS 3334 Criminal Justice Planning (3 credits)

COMPLETE 12 CREDITS IN THE FOLLOWING COURSE:

- CRJS 4970 Internship (12 credits)

REQUIRED ELECTIVES
COMPLETE 16 SEMESTER CREDITS:

- CHEM 2210 Criminalistics (3 credits)
- CHEM 2270 Criminalistics Laboratory (1 credit)
- CRJS 1000 The American Legal System (3 credits)
- CRJS 2200 Systems Dynamics (3 credits)
- CRJS 2221 Comparative Justice (3 credits)
- CRJS 3310 Introduction to Emergency Management (3 credits)
- CRJS 3319 Topics In Criminal Justice (1-2 credits)
- CRJS 3334 Criminal Justice Planning (3 credits)
- CRJS 3344 Criminal Justice and Domestic Violence (3 credits)
- CRJS 3351 Criminal Profiling (3 credits)
- CRJS 3355 Drugs and Criminal Justice (3 credits)
- CRJS 3356 Introduction to Homeland Security (4 credits)
- CRJS 3357 Applied Civil Law (3 credits)
- CRJS 3359 Criminal Investigation (4 credits)
- CRJS 3360 Criminal Procedure and Evidence (4 credits)
- CRJS 3380 Community Corrections (3 credits)
- CRJS 4103 Criminal Justice Diversity (3 credits)
- CRJS 4420 Legal Aspects of Corrections (3 credits)
- CRJS 4480 Police and Community Relations (4 credits)
- CRJS 4487 Offender Intervention (3 credits)
- HLTH 3600 Emergency Response (3 credits)
- INST 1107 Introduction to Turtle Island (3 credits)
- SOC 2230 Race and Ethnic Relations (3 credits)

**D. CRIMINAL JUSTICE (NON-INTERNSHIP)**

D. Criminal Justice (Non-Internship)
COMPLETE THE FOLLOWING COURSES:

- CRJS 2200 Systems Dynamics (3 credits)
- CRJS 2221 Comparative Justice (3 credits)
- CRJS 3315 Criminology and Delinquency (4 credits)
- CRJS 3334 Criminal Justice Planning (3 credits)

REQUIRED ELECTIVES
COMPLETE 25 SEMESTER CREDITS:

- CHEM 2210 Criminalistics (3 credits)
- CHEM 2270 Criminalistics Laboratory (1 credit)
- CRJS 1000 The American Legal System (3 credits)
- CRJS 2200 Systems Dynamics (3 credits)
- CRJS 2221 Comparative Justice (3 credits)
- CRJS 3310 Introduction to Emergency Management (3 credits)
- CRJS 3319 Topics In Criminal Justice (1-2 credits)
- CRJS 3334 Criminal Justice Planning (3 credits)
- CRJS 3344 Criminal Justice and Domestic Violence (3 credits)
- CRJS 3351 Criminal Profiling (3 credits)
- CRJS 3355 Drugs and Criminal Justice (3 credits)
- CRJS 3356 Introduction to Homeland Security (4 credits)
- CRJS 3357 Applied Civil Law (3 credits)
- CRJS 3359 Criminal Investigation (4 credits)
- CRJS 3360 Criminal Procedure and Evidence (4 credits)
- CRJS 3380 Community Corrections (3 credits)
- CRJS 4103 Criminal Justice Diversity (3 credits)
- CRJS 4420 Legal Aspects of Corrections (3 credits)
- CRJS 4480 Police and Community Relations (4 credits)
- CRJS 4487 Offender Intervention (3 credits)
- HLTH 3600 Emergency Response (3 credits)
- INST 1107 Introduction to Turtle Island (3 credits)
- SOC 2230 Race and Ethnic Relations (3 credits)

## Criminal Justice *minor*

Required Credits: 25
Required GPA: 2.00

REQUIRED COURSES

COMPLETE THE FOLLOWING COURSES:

- CRJS 1120 Criminal Justice and Society (4 credits)
- CRJS 3304 Police Process (4 credits)
- CRJS 3305 Judicial Process (4 credits)
- CRJS 3306 Correctional Process (4 credits)

REQUIRED ELECTIVES

SELECT 9 ADDITIONAL ELECTIVE CREDITS IN CRJS COURSES AT THE 3000 LEVEL OR HIGHER

## Criminal Justice Courses

**CRJS 1000 The American Legal System (3 credits)**
Examines the most important themes in the American legal system. Introduces students to the legal institutions, including the constitutional basis of the law, the justification of criminal law, the rationale for punishment, and the stages and people in the American legal process. Liberal Education Goal Area 9

**CRJS 1120 Criminal Justice and Society (4 credits)**
A general introduction to the philosophies, principles, and social aspects which underlie the formulation of law and administration of justice in the United States. Provides an overview of the institutions and relationships of those agencies composing the criminal justice system and an introduction to systems theory. Includes computer-based exercises that familiarize students with available data sources, interrelationships between criminal justice and the larger society, and possible outcomes of alternative policy choices.

**CRJS 2200 Systems Dynamics (3 credits)**
The central concept to systems dynamics is the need to understand how all the parts of a system interact with one another. In this context, organizations can be seen as complex and chaotic systems. The various parts and people in an organizational system interact through "feedback" loops, where a change in one over time affects others, which in turn affects the original, etc. System approaches and theory try to understand the basic structure of the system and therefore the behavior it can produce. This course provides instruction in systems dynamics, its applications, and the computer modeling of systems through the use of Stella software. Prerequisite: CRJS 1120; Prerequisite or Corequisite: CRJS 3201.

**CRJS 2221 Comparative Justice (3 credits)**
Introduction to a variety of international systems of justice. Students critically examine international legal traditions, study the criminal justice institutions that make up the systems of justice, and explore the cultural, social, and political contexts that contribute to the maintenance of the justice systems. Explores attempts to develop an international criminal justice system. Liberal Education Goal Area 8.

**CRJS 3201 Research Methods and Statistics for Criminal Justice (4 credits)**
An introduction to the framing and addressing of research questions within a criminal justice context. Students will be exposed to descriptive, explanatory, and exploratory research designs and the application of appropriate quantitative analytic techniques to those research designs.

**CRJS 3304 Police Process (4 credits)**
An introduction to the police component of the criminal justice system. Based on both classical readings and current issues in the police field, this course covers police history, the police role and functions in modern society, and the evolving nature of police work. Special emphasis given to the evolving nature in police work after the events of September 11th, 2001. Prerequisite: CRJS 1120 and CRJS 3201, or consent of instructor.

**CRJS 3305 Judicial Process (4 credits)**
Examines the criminal justice and civil law judicial process. Covers judicial involvement from pre-arrest warrant issuance to appellate court review. Focuses on the role, function, and behavior of prosecutors, defense attorneys, and judges. Prerequisites: CRJS 1120

**CRJS 3306 Correctional Process (4 credits)**
Provides the student with an understanding of corrections as a major part of the criminal justice system. Focuses on principles, assumptions, and processes pertaining to achieving correctional goals and objectives. Prerequisites: CRJS 1120 and CRJS 3201, or consent of instructor.

**CRJS 3310 Introduction to Emergency Management (3 credits)**
This course explores the needs of public safety officials who have responsibility for emergency preparedness planning and response. Includes contexts for emergency planning -legal and jurisdictional; responsibility for planning and responding to emergencies; different types of emergencies, and an approach to planning that can be applied to emergency situations. Addresses specific issues associated with the planning process, including the role of the manager, the necessity for multi-agency involvement, various analytical techniques employed in planning, different levels of emergency planning, and different elements of the plan. This course examines the history and perspectives of emergency management, hazards, concepts and taxonomies, all-hazards approach, phases of emergency management, risk assessment, risk communication and emergency management functions. Prerequisite(s): CRJS 1000 or CRJS 1120

**CRJS 3315 Criminology and Delinquency (4 credits)**
Significant theoretical traditions, subsequent research, and policy related to crime and delinquency. Students will be exposed to the following crime data sources: official statistics, victimization reports, and self-reports. Prerequisites: CRJS 1120 and CRJS 3201, or consent of instructor.

**CRJS 3319 Topics In Criminal Justice (1-2 credits)**
Designed to present special topics, problems or areas of current interest to the field of Criminal Justice.

**CRJS 3334 Criminal Justice Planning (3 credits)**
A systemic overview of crime prevention presented within a framework of a planned, proactive response to crime by all components of the criminal justice system. Examines principles of planning, research, and evaluation as applied to crime prevention. Prerequisites: CRJS 1120, CRJS 3201, CRJS 3304, CRJS 3305, and CRJS 3306, or consent of instructor.

**CRJS 3344 Criminal Justice and Domestic Violence (3 credits)**
The historical roots of domestic and sexual violence, and the continuing prevalence and magnitude of the problem. This course focuses on coordinated community efforts in the United States to keep families and others safe from relationship violence; thoroughly examines methods used by the criminal justice system to prevent and treat domestic violence; emphasizes the changing response of police, social agencies, the courts, and our lawmakers to domestic violence cases; and investigates ways in which the legal system treats victims of abuse who fight back and sometimes kill abusers. Prerequisite: CRJS 1120.

**CRJS 3345 Criminal Justice Administration (3 credits)**
Principles of organization and management of criminal justice agencies. Line and non-line functions, personnel administration, planning, budgeting, goals and control are examined. Prerequisites: CRJS 3304, CRJS 3305, or CRJS 3306.

**CRJS 3351 Criminal Profiling (3 credits)**
Students are exposed to behavioral evidence management techniques, learning how to infer offender traits from physical and/or behavioral evidence. This course is applied to solving real crime through an understanding of the nature and behavior of criminals. Prerequisites: CRJS 1120, CRJS 3201, and CRJS 3315.

**CRJS 3355 Drugs and Criminal Justice (3 credits)**
Focuses on the historical and contemporary patterns of psychoactive drug use in the United States and on the development and evaluation of criminal justice policies intended to reduce or eliminate drug use and/or drug problems. Topics include major types of psychoactive drugs, the War on Drugs, the international context of drug production and distribution, and personal and social problems resulting from drug use.

**CRJS 3356 Introduction to Homeland Security (4 credits)**
Addresses the role of state and local law enforcement in national defense. Also addresses critical issues such as civil liberties, privacy rights, police organization and structure, as well as the relationship between federal and local law enforcement. Introduces students to emergency management and the critical importance of managing risk. Prerequisite: CRJS 1120.

**CRJS 3357 Applied Civil Law (3 credits)**
An examination of the statutes and a review of cases with regard for those aspects of family and business law that are most typical to law enforcement.

**CRJS 3358 Criminal Law (4 credits)**
This course encompasses the basic concepts of the criminal law and the elements of criminal offenses in Minnesota in particular. Crimes against persons, crimes against property, crimes against the administration of justice and others are reviewed. The case method is used to define the contours of judicial interpretation of the criminal law.

**CRJS 3359 Criminal Investigation (4 credits)**
The concepts and principles related to criminal investigation. This course addresses those techniques and methods of evidentiary collection, processing, and testimony commonly employed by police investigators and crime scene technicians conducting a lawful inquiry, from arrival at a crime scene to laboratory analysis to closing the investigation by making an arrest. Also includes a section devoted to police report writing as well as a laboratory section where various evidence collection and crime scene processing techniques are conducted. Prerequisite: CRJS 3358 or consent of instructor.

**CRJS 3360 Criminal Procedure and Evidence (4 credits)**
This course focuses on the rights of the criminally accused, primarily those involved in the pre- trial stages of the criminal process. The Bill of Rights as it pertains to the criminally accused will be examined. The rules of evidence defining the types and use of criminal evidence allowed in court will also be addressed in this course.

**CRJS 3380 Community Corrections (3 credits)**
An in-depth examination of community corrections programs including: program planning, implementation and evaluation, client's rights, intake, contracting, release, use of community resources, and use of various treatment modalities. Prerequisite: CRJS 3306.

**CRJS 4103 Criminal Justice Diversity (3 credits)**
A course in applied human relations that examines the dynamics of class, race, and gender as they intersect with the social realities of crime and justice in the U.S. today. How class, race, and gender operate both separately and in combination to influence the criminal justice system. Includes a summary of reforms and policies to reduce bias in crime control and criminal reduction currently under consideration. Prepares students for conducting and managing criminal justice in a pluralistic society. The facts and theoretical foundation are presented so that students can make their own informed decisions about discrimination in the criminal justice system.

**CRJS 4420 Legal Aspects of Corrections (3 credits)**
This course examines the scope and nature of legal aspects of corrections in the United States. It emphasizes the court structure and sentencing practices, prison law, probation and parole law, juvenile law. Liability for correction personnel is also examined. Prerequisite: CRJS 3306.

**CRJS 4480 Police and Community Relations (4 credits)**
Primarily intended for those entering the police profession, this course covers the rules that govern peace officer behavior under the Minnesota Peace Officer Standards and Training Board; addresses a number of Minnesota Board of Police Officer Standards and Training learning objectives, including victimization, ethical behavior, media relations, and response to and coping with stress; and examines police and community relations. Prerequisites: CRJS 1120 and CRJS 3304.

**CRJS 4487 Offender Intervention (3 credits)**
Examines counseling and treatment approaches and strategies applicable for use in correctional settings including institutions and community corrections. Various treatment modalities are explored in relationship to offender rehabilitation. Prerequisite: CRJS 3306.

**CRJS 4920 Directed Group Study (4 credits)**
When taken as a requirement the following description may apply: Course entails advanced study in theories, philosophies, and practices in criminal justice. Requires extensive review of writings with emphasis on recent developments in the practice of criminal justice. Prerequisite: Senior status or consent of instructor.

**CRJS 4970 Internship (12 credits)**
When taken as a requirement the following description may apply: A full time supervised field instruction in a public or private criminal justice agency. The student is expected to demonstrate his/her acquired knowledge and skills to the criminal justice practice. Students should arrange for this class at least one quarter in advance of the quarter of enrollment. Graded Satisfactory/ Unsatisfactory. Prerequisites: Completion of major required courses; major GPA of 2.25; overall GPA of 2.00 and consent of instructor.

## All-University Courses

The course numbers listed below, not always included in the semester class schedule, may be registered for by consent of the advisor, instructor, or department chair, or may be assigned by the department when warranted. Individual registration requires previous arrangement by the student and the completion of any required form or planning outline as well as any prerequisites.

1910, 2910, 3910, 4910 DIRECTED INDEPENDENT STUDY
1920, 2920, 3920, 4920 DIRECTED GROUP STUDY
1930, 2930, 3930, 4930 EXPERIMENTAL COURSE
1940, 2940, 3940, 4940 IN-SERVICE COURSE
1950, 2950, 3950, 4950 WORKSHOP, INSTITUTE, TOUR
1960, 2960, 3960, 4960 SPECIAL PURPOSE INSTRUCTION
1970, 2970, 3970, 4970 INTERNSHIP
1980, 2980, 3980, 4980 RESEARCH
1990, 2990, 3990, 4990 THESIS

# Developmental Electives

Developmental Electives promote student success by improving academic, personal and social skills. Some of the courses may be applied toward the fulfillment of graduation requirements. The University maintains a comprehensive listing of all Developmental Electives in the Office of Admissions and in the Records and Registration Office.

**Note:** Courses numbered 0900 through 0999 are considered Developmental Elective courses. A maximum of four semester credits satisfactorily completed are permitted to be included in the total credits for graduation. Courses taken in excess of the first four semester credits in this category shall appear on the transcript and be included in the cumulative grade point average (GPA) but will not count toward total credits required for graduation.

## Developmental Electives Courses

**DEVL 0911 Academic American English I (3 credits)**
A remedial course in listening, speaking, reading, and writing English. Use of Reading Week Seminar for pronunciation improvement. Prerequisite: International student with a score between 475 and 500 on the TOEFL (Test of English as a Foreign Language) and a score below 70 on the Michigan Test of College English.

**DEVL 0912 Academic American English II (3 credits)**
Review and advancement of listening, speaking, reading, and writing of English. Focuses on perfecting English pronunciation through the use of Reading Week Seminar and improving English proficiency in the four basic skills areas. Extensive vocabulary development, understanding of American culture, accurate composition, and further practice in discussion and individual oral presentations. Prerequisite: International student with a score below 80 and above 70 on the Michigan College English Test or DEVL 0911 with a grade of A or B.

**DEVL 0913 Academic American English III (2 credits)**
Review and advancement of listening, speaking, reading, and writing of English. Extensive vocabulary development and more emphasis on composition accuracy. Prerequisite: International student with a score below 90 and above 80 on the Michigan College English Test or DEVL 0912 with a grade of A or B.

### All-University Courses

The course numbers listed below, not always included in the semester class schedule, may be registered for by consent of the advisor, instructor, or department chair, or may be assigned by the department when warranted. Individual registration requires previous arrangement by the student and the completion of any required form or planning outline as well as any prerequisites.

1910, 2910, 3910, 4910 DIRECTED INDEPENDENT STUDY
1920, 2920, 3920, 4920 DIRECTED GROUP STUDY
1930, 2930, 3930, 4930 EXPERIMENTAL COURSE
1940, 2940, 3940, 4940 IN-SERVICE COURSE
1950, 2950, 3950, 4950 WORKSHOP, INSTITUTE, TOUR
1960, 2960, 3960, 4960 SPECIAL PURPOSE INSTRUCTION
1970, 2970, 3970, 4970 INTERNSHIP
1980, 2980, 3980, 4980 RESEARCH
1990, 2990, 3990, 4990 THESIS

# Earth Science

The study of Earth Science draws primarily on geology and meteorology with additional attention to the fields of oceanography and life history. The traditional background for Earth Science focuses on mathematics and the quantitative aspects of science. The contemporary study and practice of Earth Science includes the qualitative evaluation and understanding of earth processes.

Both the quantitative and qualitative factors are applied in decision-making processes that range from plans for worldwide concerns, such as global warming, and for natural disasters, such as earthquakes and floods, to evaluation of a building site for a home. Earth Science is also a companion field of study for hydrologists and environmental scientists and for related careers in government, business, and industry.

**Programs**

- Science Education, B.S. (Earth and Space Science Specialty (Teacher Licensure))*major*
- Earth Science *minor*

**Career Directions**

Federal/State Agent
Industry/Business Consultant
Park Naturalist
Science Curriculum Coordinator
Also: Graduate Study

**Preparation**

*Recommended High School Courses*
Algebra
Biology
Chemistry
Physics
Trigonometry

## Science Education, B.S. *major*
## Earth and Space Science Specialty (Teacher Licensure)

Required Credits: 86
Required GPA: 2.50

**Core Courses for Science Teaching in Grades 5-8**

COMPLETE THE FOLLOWING COURSES:

- BIOL 1211 Introductory Biology I (4 credits)
  *or* BIOL 1110 Human Biology (4 credits)
- BIOL 1212 Introductory Biology II (4 credits)
  *or* BIOL 1120 General Biology: Evolution And Ecology (3 credits)
- CHEM 2211 Principles of Chemistry I (4 credits)
  *or* CHEM 1111 General Chemistry I (4 credits)
- CHEM 2212 Principles of Chemistry II (4 credits)
  *or* CHEM 1112 General Chemistry II (4 credits)
- GEOL 1110 Physical Geology (4 credits)
- SCI 3100 Integrative Science for Teachers (4 credits)
- SCI 3450 Science Methods For Grades 5-8 (4 credits)
  *or* ED 3410 Middle School Science Methods (4 credits)

**REQUIRED PROFESSIONAL EDUCATION COURSES**

COMPLETE THE FOLLOWING COURSES:

- ED 3100 Introduction to the Foundations of Public School Education (3 credits)
- ED 3110 Educational Psychology (3 credits)
- ED 3140 Human Relations In Education (3 credits)
- ED 3350 Pedagogy: Planning for Instruction (3 credits)
- ED 3780 Adaptation and Management: Designing the Learning Environment (3 credits)
- ED 4737 Content Area Reading (3 credits)
- ED 4799 The Professional Teacher (1 credit)
- HLTH 3400 Health and Drugs in Society (2 credits)

Complete 12 credits of student teaching:

- ED 4830 Student Teaching - Secondary (1-12 credits)

**EARTH AND SPACE SCIENCE SPECIALTY**

COMPLETE THE FOLLOWING COURSES:

- ENVR 2000 Introduction to Environmental Science (3 credits)
- GEOL 1120 Historical Geology (4 credits)
- GEOL 2110 Mineralogy and Petrology (4 credits)
- GEOL 3500 Topics in Paleontology (3 credits)
- GEOL 3600 Stratigraphy and Sedimentation (3 credits)
- SCI 2100 Astronomy (3 credits)

SELECT 1 OF THE FOLLOWING COURSES:

- GEOL 3211 Environmental Hydrology (3 credits)
- ENVR 4050 Geochemistry (3 credits)

SELECT 1 OF THE FOLLOWING COURSES:

- GEOL 4970 Internship (3 credits)
- GEOL 4980 Research (3 credits)

## Earth Science *minor*

The Earth Science minor is designed to support other fields such as geography, biology, and chemistry. The program will complement and enhance many majors, but does not in and by itself lead to a career choice.

Multiple Credentials
Any additional major, minor or certificate in a degree must have at least 6 credits of course work not used to meet the requirements of another major, minor or certificate in the degree.

Required Credits: 23
Required GPA: 2.00

**I REQUIRED COURSES**

COMPLETE THE FOLLOWING COURSES:

- BIOL 3630 Conservation Biology (3 credits)
- GEOL 1110 Physical Geology (4 credits)
- GEOL 1120 Historical Geology (4 credits)
- GEOL 3211 Environmental Hydrology (3 credits)
- SCI 2200 Meteorology (3 credits)

**II REQUIRED ELECTIVES**

SELECT 2 OF THE FOLLOWING COURSES:

- GEOL 2110 Mineralogy and Petrology (4 credits)
- GEOL 2730 Introduction to Planetary Science (4 credits)
- GEOL 3212 Hydrogeology (3 credits)
- GEOL 3400 Glacial and Pleistocene Geology (3 credits)
- GEOL 3500 Topics in Paleontology (3 credits)
- GEOL 3600 Stratigraphy and Sedimentation (3 credits)
- GEOL 3700 Environmental Geophysics (3 credits)
- GEOL 3120 Soils (4 credits)
  *or* BIOL 3120 Soils (4 credits)

## Geography Courses

**GEOG 1224 Introduction to Map Use (3 credits)**
This course is designed for the liberal education program and provides an introduction to common characteristics and use of map media. Topographic maps will be used for physical analysis as well as to discern cultural and economic features of landscapes. Thematic maps, their use and applications will be presented. Includes some study out-of-doors with map and compass. Liberal Education Goal Areas 5 & 11.

**GEOG 1400 World Regional Geography (3 credits)**
A survey of physical, cultural, and economic aspects of world regions. An introduction to how constituent parts of the world differ from one another in their associated resources, cultures and economics. Attention is given to the interrelationships, interdependencies, and associations that bind together the diverse communities of the world. Liberal Education Goal Areas 7 & 8.

**GEOG 2100 Introduction to Physical Geography (3 credits)**
This course is designed for the liberal education program and provides an introduction to spatial patterns derived from earth system processes. The course provides a systematic survey of land forms, weather and climate, soils and vegetation. This course utilizes a combination of in class discussion and laboratory-like exercises to investigate these topics. Liberal Education Goal Area 3.

**GEOG 2200 Introduction to Human Geography (3 credits)**
Emphasizes the study of geographical relationships and interactions of cultural, social, economic, ethnic, and political phenomena. Topical approach to population subgroups, religions, languages, urban and rural settlements, and other attributes of the cultural landscape. Liberal Education Goal Areas 7 & 8.

**GEOG 2300 Economic Geography (3 credits)**
Spatial structure of world economic activities; agriculture, forestry, fishing, mining, industry and trade. Liberal Education Goal Area 5.

**GEOG 2400 Introduction to Planning (3 credits)**
This course is designed for the liberal education program and provides information on the background and fundamentals of the community planning process. Includes discussion of contemporary issues in physical, environmental and social planning. Emphasis is on the local and subregional levels. Liberal Education Goal Areas 5 & 9.

**GEOG 2925 People and the Environment: Geography Perspective (3 credits)**
An integrative study of the natural, social, value-based, and citizen-action contexts for environmental awareness. The disciplinary component surveys geographic approaches to and institutional settings for environmental problems and decision making, including our spatial behaviors as either sources or recipients of environmental impacts. Interdisciplinary perspectives are evaluated in light of different geographic concepts of spatial distributions, physical geography, and regional planning. Liberal Education Goal Area 10.

**GEOG 3125 Weather and Climate (3 credits)**
Weather is the study of the atmosphere over short time scales, while climate is the study of long-term weather trends. The study of weather is commonly termed meteorology, which is actually a branch of physics associated with fluid dynamics. Climate is associated with statistical procedures and analyses. This course examines the geographic patterns and processes of global climate and weather, as well as topics such as global climate change, global climate models, and extreme weather events. Students learn about the Earths atmosphere; energy budgets and astronomical controls on weather processes; oceanic and atmospheric circulation; the basic atmospheric parameters; atmospheric hazards such as tornadoes, hurricanes, hail, and lightning; and global climate change issues. Prerequisite: GEOG 2100 or consent of instructor.

**GEOG 3226 Cartography (3 credits)**
This course provides a more integrated, practical link between cartographic theory and practice for users of GIS. This course blends theoretical discussion of GIS as a science and GIS as a software application and addresses through lecture and laboratory work map productions for a variety of audiences. A particular focus of this course is on quality communication through maps. Experience with GIS software is essential. Prerequisite: GEOG 3231.

**GEOG 3231 Introduction to Geographic Information Systems (3 credits)**
This course develops a proficiency in basic GIS skills for those new to GIS. Techniques for problem solving and cartographic mapping concepts are also introduced, as they are essential to quality cartographic representation and a marketable skill set. This course concentrates on learning to navigate the current version of ArcGIS software at a beginner's level and one developing and creating maps as communication tools.

**GEOG 3232 Intermediate Geographic Information Systems (3 credits)**
An intermediate course on the theories and application of GIS for spatial data management and analysis, thematic mapping, environmental modeling. This course expands on the concepts and methods presented in Introduction to GIS and guides students through a more comprehensive overview of principles and techniques used in GIS. Course objectives include (1) enhance and build knowledge of GIS as a system and science, (2) improve skills at GIS analysis, and (3) develop and improve problem solving skills. Prerequisite: GEOG 3231 or consent of instructor.

**GEOG 3255 Introduction to Remote Sensing (3 credits)**
Analysis of a special class of pictures that provide an overhead perspective. These images have unique properties that provide a distinct advantage to assessing spatial changes and patterns of change on the Earths surface. Students develop an understanding and the skills necessary for interpreting air photos, satellite, and remotely sensed images. Prerequisite: GEOG 3231 or consent of instructor.

**GEOG 3410 Geography of North America (3 credits)**
A regional analysis of the physical, demographic, economic and cultural characteristics of the nations in North America.

**GEOG 3460 Teaching of Middle and Secondary School Social Studies (4 credits)**
Objectives, activities, methods, and materials in teaching social studies in grades 5-12. Additional laboratory time is required. Prerequisite: ED 3110.

**GEOG 3531 Political Geography (3 credits)**
This course utilizes "World Systems Theory" to investigate 1) theories of State formation and organization; 2) historical processes of imperialism, colonialism, and decolonization; 3) major issues of the emerging political economy; 4) historical and contemporary geopolitics; and 5) the political geography of everyday life.

**GEOG 3532 Political Ecology (3 credits)**
Political ecology utilizes a necessary geographical perspective to understand and analyze the biophysical processes that shape issues otherwise inadequately conceptualized as political, economic or social. This spatial understanding developed by political geographers reveals relationships of the ecological and the political that are simultaneously mutually reinforcing and, often, mutually antagonistic. Prerequisite: GEOG 3531 or consent of instructor.

**GEOG 3550 Site and Resource Analysis in Planning (3 credits)**
This course emphasizes techniques and methods in the location, analysis, evaluation, and design of sites, focusing on identifying use potentials and impact limitations for planning and management. Prerequisite: GEOG 2400 or consent of instructor.

**GEOG 3560 Metropolitan Land Use Planning (3 credits)**
An examination of the identification and inventory methods of land use analysis including the designing of land use models which are compatible with environmental, social, and economic goals. Prerequisites: GEOG 2100, GEOG 2400, or consent of instructor. Prior completion of or concurrent enrollment in either GEOG 3550 or GEOG 3570 is recommended.

**GEOG 3570 Public Lands Planning (3 credits)**
Comparison and evaluation of natural resource management policies and analytical techniques of the U.S. Forest Service, Bureau of Land Management, National Park Service and U.S. Fish and Wildlife Service. Attention is paid to the historical and contemporary land management approaches used to protect, exploit, manage, and/or use public lands in the United States. Especially relevant are jurisdictional issues over public land, federal agencies involved in land management, state and local issues and land management, and contemporary issues associated with land management in the 21st Century. Prerequisites: GEOG 2400 and GEOG 3550, or consent of instructor.

**GEOG 3580 Regional Development Planning (3 credits)**
An examination of methods and processes emphasizing contemporary relationships between planners and governments, the private sector, and nongovernmental organizations regarding relationships between regions nationally and internationally, with special attention to environmental sustainability. Prerequisite(s): GEOG 2400 and GEOG 3570, and either GEOG 2300 or GEOG 3560. Students are strongly recommended to have previously completed GEOG 4265 or to be enrolled in GEOG 4265 concurrently with GEOG 3580.

**GEOG 3630 Conservation Biology (3 credits)**
Principles and theories of conservation biology. Topics include biodiversity, threats to biodiversity, extinctions, management of threatened and endangered species, managing habitats for conservation, and methods to mitigate biodiversity loss. Prerequisites: BIOL 1211 and BIOL 1212, or consent of instructor. Also BIOL 3630.

**GEOG 3800 Regional Geography (1-3 credits)**
A regional and topical analysis of the cultural and physical features of a continent or major region of the earth. May be repeated provided different regions are involved. Note: Recommended for students in international studies, foreign languages, and for prospective teachers in the humanities or social studies.

**GEOG 3810 Geography of Europe (3 credits)**
A regional analysis of the cultural, economic, physical and landscape patterns of the European cultural region. NOTE: Recommended for students in Euro-Spring, International Studies, foreign languages, and prospective teachers. Liberal Education Goal Area 5.

**GEOG 3820 Geography of East, South, and Southeast Asia (3 credits)**
This course is designed to provide a more in depth look at Asian sub regions of South, East and Southeast Asia. Geographically, we will examine and analyze activities in this part of the world through cultural, demographic, political, economic, urban and geopolitical lenses. Liberal Education Goal Area 8. Might not be offered every year. Prerequisite: GEOG 1400 or GEOG 2200.

**GEOG 3840 Geography of Africa (3 credits)**
Despite persistent bias about it, Africa's cultural complexity, social dynamism, and political/economic struggle have tremendous relevance for the study of global trends at the start of the twenty-first century. The central purpose of this course is to demonstrate that relevance by investigating the cultural, historical, economic, and political dimensions of change in Africa.

**GEOG 3850 Geography of the Middle East (3 credits)**
This course is designed to provide a more in depth look at the region we routinely describe as the Middle East. Geographically, we will examine activities in SW Asia and the nations of North Africa. We may extend our discussion to the countries of Afghanistan, the Sudan, South Sudan and Turkey to provide a more comprehensive analysis of a particular topic or subtopic. This is a highly complex region and may be looked at from numerous perspectives. Our objective thus is to examine the region through economic, cultural, environmental, urban and geopolitical lenses. Prerequisite: GEOG 1400 or GEOG 2200.

**GEOG 3860 Geography of Latin America and the Caribbean (3 credits)**
This course is designed to provide a more in depth look at the region of Latin America and the Caribbean. We recognize at the outset that this is a broad subject and may be looked at from numerous perspectives. Our objective thus is to examine this geographic region through economic, cultural, environmental, urban and political lenses. The text book provides the basis for our study which is further complemented by each students (1) research into an issue or event that had a far reaching impact on this region or within its sub-regions, (2) reading of works of fiction set in Latin America and (3) viewing feature films with Latin American themes. Prerequisite: GEOG 1400 or GEOG 2200.

**GEOG 4120 Urban Geography (3 credits)**
Functions and distribution of cities. Urban sizes, hierarchies, and external relations with the countryside. The central place and other theories of the spacing of cities. Internal structures and functions of cities, the growth of cities, urban slums, urban sprawl, and city planning. Systematic. Prerequisite: GEOG 2200 or consent of instructor.

**GEOG 4130 Biogeography (3 credits)**
This course examines the distribution and diversity of flora and fauna across multiple scales. It will focus on the factors that shape and influence these patterns and investigate the role of disturbance in this process. It will also incorporate both field and lab experiences to further examine the key concepts of biogeography. Prerequisites: GEOG 2100 and GEOG 3231.

**GEOG 4140 Landscape Ecology (3 credits)**
This course examines the connection of pattern and process at the scale of the landscape. Students will utilize several analytical methods to examine and explain how humans, disturbance and natural process work in concert to create landscape-level dynamics and change. The course will also cover how landscape ecology is applied to assist in conservation efforts. Prerequisites: GEOG 2100 and GEOG 3231.

**GEOG 4190 Qualitative Methods in Geographic Research (3 credits)**
As a geographic perspective becomes increasingly important in analysis of critical issues at multiple scales from the local to the global, this course demonstrates how research grounded in qualitative methodologies encourages innovative approaches and yields significant insights. Prerequisite: GEOG 2200. While not required, it is highly recommended that GEOG 4210 and GEOG 4265 be taken previously or concurrently.

**GEOG 4210 The History and Development of Geographic Thought (3 credits)**
Development of the discipline of Geography with emphasis on both the historical and recent developments in the field. Includes a critical analysis of writing of representative geographers.

**GEOG 4265 Spatial Analysis (3 credits)**
An examination in the concepts and application of advance spatial statistical methodologies. These include, kriging, spatial autocorrelation, spatial regression models, and cluster analysis. Prerequisites: STAT 2610 or PSY 3401 or BUAD 2231 and GEOG 3231.

**GEOG 4275 Advanced Geographic Information Systems (3 credits)**
This course will give students hands on experience working with advanced geodatabases, the basic automation and scripting of geospatial processes, web mapping, and server side application in GIS. Prerequisites: GEOG 3231 and GEOG 3232.

**GEOG 4910 Directed Independent Study (4 credits)**
Arranged individual study.

**GEOG 4970 Internship (4 credits)**
Graded Satisfactory/Unsatisfactory only. Student internships may be either full-time or part-time in a public or private agency appropriate to the degree objective. Internships consist of closely supervised periods of service that are arranged in advance of the course registration. Students should consult their advisor concerning prerequisites.

**GEOG 4990 Thesis (3 credits)**
Working individually with a thesis advisor, the student produces a Geography thesis. The thesis must be a scholarly piece of work, based on empirical or archival research of a geographical issue (physical, demographic, economic, cultural, and/or political) of present or future relevance. The end product is a documented essay of at least minimally required length and format that must be approved by the advisor and at least one other member of the Geography Department after a brief oral defense.

### All-University Courses

The course numbers listed below, not always included in the semester class schedule, may be registered for by consent of the advisor, instructor, or department chair, or may be assigned by the department when warranted. Individual registration requires previous arrangement by the student and the completion of any required form or planning outline as well as any prerequisites.

1910, 2910, 3910, 4910 DIRECTED INDEPENDENT STUDY
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1970, 2970, 3970, 4970 INTERNSHIP
1980, 2980, 3980, 4980 RESEARCH
1990, 2990, 3990, 4990 THESIS

## Biology Courses

**BIOL 1110 Human Biology (4 credits)**
General introduction to biology, focusing on humans, including topics on cell biology, genetics, molecular biology, form and function of organ systems, and the interaction between humans and their environment. Intended for nonbiology majors. Lecture and laboratory. Liberal Education Goal Area 3 (LC).

**BIOL 1120 General Biology: Evolution And Ecology (3 credits)**
A general introduction to biology with an emphasis on evolution, ecology, and the diversity of life. Intended for nonbiology majors. Includes laboratory simulations and field exercises. Liberal Education Goal Area 3 and 10.

**BIOL 1150 Aquatic Systems (3 credits)**
An introduction to the physical characteristics, chemistry, and biology of lakes, streams, and rivers. Includes information on human impacts and alteration of these natural systems. Includes laboratory simulations and field exercises. Liberal Education Goal Area 3.

**BIOL 1211 Introductory Biology I (4 credits)**
An introduction to the structure and function of living systems, with an emphasis on basic mechanisms and concepts in biochemistry and in cellular and molecular biology. Intended for biology majors and minors, preprofessional students, and open to any student wishing to fulfill their Liberal Education requirement. Lecture and laboratory. BIOL 1211 and BIOL 1212 must be taken in sequence. Liberal Education Goal Area 3 (LC).

**BIOL 1212 Introductory Biology II (4 credits)**
An introduction to living organisms, with an emphasis on the basic mechanisms and concepts in organismal biology, ecology, and evolutionary biology. Topics include taxonomy and classification of the major groups of plants and animals, structure and function, development, and behavior. Intended for biology majors and minors, preprofessional students, and open to any student wishing to fulfill their Liberal Education requirement. Lecture and laboratory. Prerequisite: BIOL 1211 or consent of instructor. Liberal Education Goal Area 3 (LC).

**BIOL 1300 Medical Terminology (2 credits)**
A study of anatomical and medical terminology by examining word roots, prefixes, and suffixes. Designed to assist pre-professional and allied health students who desire to increase their usage and understanding of medical terminology. This course does not satisfy any Biology major or minor degree requirements.

**BIOL 2110 Human Anatomy and Physiology (5 credits)**
The structure, function, and development of the human body. Lecture and laboratory. Prerequisite: BIOL 1110 or BIOL 1211.

**BIOL 2339 Ethics of Fish and Wildlife Management (3 credits)**
This class is designed to explore the ethical aspects of various fish and wildlife management related topics in order to better understand how ethical viewpoints at both the social and political levels have influenced natural resource policy throughout history at the local, regional, and global scales. Liberal Education Goal Area 9.

**BIOL 2360 Genetics (4 credits)**
Fundamental principles of heredity in plants, animals, and microorganisms. Includes both classical and molecular genetic approaches to studying organisms. Prerequisites: BIOL 1211 and BIOL 1212.

**BIOL 2610 General Ecology (3 credits)**
Introduction to the interrelationships of organisms and their environments, emphasizing the historic development of fundamental principles at the levels of individual, population, community, and ecosystem through examination of theoretical and empirical findings. Prerequisites: BIOL 1110, 1120 or BIOL 1211, 1212 or consent of instructor.

**BIOL 2620 Field and Laboratory Projects in Ecological Research (2 credits)**
Introduction to the process of research in ecological science. The first part of the class consists of activities and lectures pertaining to basic issues of study design and execution. For the remainder of the class, students will design, carry out, and report on their own ecological study. Prerequisite or Corequisite BIOL 2610.

**BIOL 2925 People & The Environment: Biological Perspectives on the Environment (3 credits)**
Discussion and evaluation of current environmental biology topics, including biodiversity, ecosystems, biological resources, and human impact on the environment. This course fulfills Liberal Education requirements only and does not satisfy and Biology major or minor degree requirements. Liberal Education Goal Area 10.

**BIOL 3120 Soils (4 credits)**
Introduction to principles of soil genesis, classification, physical and chemical properties, and biological significance. Lecture and laboratory. Prerequisites: BIOL 1211 and BIOL 1212 or consent of instructor.

**BIOL 3150 Animal Behavior (3 credits)**
Introduction to the study of the diversity, physiology, ecological context, and evolutionary development of behavior of invertebrate and vertebrate animals. Prerequisite: BIOL 1211 and BIOL 1212, or PSY 1100.

**BIOL 3250 Comparative Vertebrate Anatomy (4 credits)**
Classification, adaptation, and evolutionary history of vertebrates; anatomy and functional morphology of vertebrates, including humans. Lecture and Laboratory. Prerequisites: BIOL 1211 and BIOL 1212.

**BIOL 3260 Medical Physiology (4 credits)**
Physiological and pathophysiological principles and control mechanisms of organ systems within humans. Lecture and laboratory. Prerequisites: BIOL 1211, BIOL 1212, BIOL 3250, and CHEM 3312.

**BIOL 3300 Introduction to Hematology (4 credits)**
Introduction to the principles of blood cell formation, function, and associated disorders. Lecture and Laboratory. Prerequisites: BIOL 1211, CHEM 2211, and CHEM 2212. BIOL 2360 or BIOL 3380 is recommended.

**BIOL 3310 Entomology (4 credits)**
The biology of insects, their natural history, morphology, classification, and economic importance. Lecture, laboratory, and field study. Prerequisites: BIOL 1211 and BIOL 1212, or consent of instructor.

**BIOL 3361 Limnology I (4 credits)**
Introduction to the biology, chemistry, geology, and physics of lakes and streams. Lecture, field, and laboratory work. Prerequisites: BIOL 1211, BIOL 1212, BIOL 2610, CHEM 2211, CHEM 2212, and PHYS 1101 (concurrent enrollment possible), or consent of instructor.

**BIOL 3362 Limnology II (4 credits)**
The second course of the Limnology sequence concentrating on the organisms commonly found in aquatic systems. Topics include physical, chemical, and biotic constraints of aquatic biota with an emphasis on ecological relationships within and between groups. Lecture and laboratory. Prerequisite: BIOL 3361.

**BIOL 3380 Molecular Genetics: Theory and Practice (4 credits)**
Study of the structure, replication, repair, expression, regulation, and change of genetic material. Introduction to theory and procedures by which recombinant DNA molecules are formed, cloned, and expressed. Lecture and laboratory. Prerequisites: BIOL 1211 and BIOL 1212. Might not be offered every year.

**BIOL 3400 Fish & Wildlife Law and Administration (3 credits)**
This course is for majors in natural resources, biology, and related fields. The lectures throughout the course will cover the history, philosophy, evolution, and application of these laws in the management of fish, wildlife, and other renewable resources for the benefit of the public. The course concludes with contemporary economic, administrative and political aspects of fish and wildlife management. The course fulfills some certification requirements of The Wildlife Society and the American Fisheries Society and is recommended for students planning graduate study or employment in natural resources management. Prerequisite: BIOL 2610.

**BIOL 3420 Human Dimensions of Wildlife and Fisheries Management (3 credits)**
This course is for majors in natural resources, biology, and related fields. The lectures throughout the course will cover the history, philosophy, evolution, and application of human dimensions in wildlife and fisheries management. The course fulfills some certification requirements of The Wildlife Society and the American Fisheries Society and is recommended for students planning graduate study or employment in natural resources management. Prerequisite: BIOL 2610.

**BIOL 3554 Readings in Aquatic Biology (1 credit)**
In-depth review and focused group discussion of a selected topic or topics. Emphasis is on learning to access and synthesize relevant literature. Active participation in discussions and working groups is required. Prerequisite: Junior status in Aquatic Biology.

**BIOL 3580 Immunology (4 credits)**
The study of disease fighting mechanisms of the body. Lecture and laboratory. Prerequisites: BIOL 2360 or BIOL 3380, and one year of chemistry.

**BIOL 3590 Cell Biology (4 credits)**
Microscopic anatomy and physiological mechanisms of plant and animal cells. Gene control of cellular metabolism, mechanism of energy utilization in cells and pathways of synthesis of molecules. Lecture and laboratory. Prerequisites: BIOL 2360 or BIOL 3380; and CHEM 2211, CHEM 2212.

**BIOL 3610 Principles of Wildlife Management (3 credits)**
Introduction to the field of wildlife management, including the biological principles important to the understanding of wildlife populations and the management strategies implemented by natural resource managers. Prerequisites: BIOL 1211, BIOL 1212, and BIOL 2610. Might not be offered every year.

**BIOL 3630 Conservation Biology (3 credits)**
Principles and theories of conservation biology. Topics include biodiversity, threats to biodiversity, extinctions, management of threatened and endangered species, managing habitats for conservation, and methods to mitigate biodiversity loss. Prerequisites: BIOL 1211 and BIOL 1212, or consent of instructor. Also GEOG 3630.

**BIOL 3710 Microbiology (4 credits)**
Structure, classification, and physiology of bacteria and related microorganisms. Lecture and laboratory. Prerequisites or Corequisites: One year introductory biology and one year introductory chemistry or consent of instructor.

**BIOL 3720 Plant Form and Function (4 credits)**
Structure, function, and development of vascular plants. Interrelationships between anatomical structures and physiological processes and how plants cope with environmental challenges. Lecture and laboratory. Prerequisites: BIOL 1211, 1212 and one year of college chemistry or consent of instructor.

**BIOL 3723 Ecosystem Ecology (3 credits)**
Fundamentals of the study of ecosystems, with emphasis on the integration of abiotic and biotic components in the development of ecosystem processes. Comparisons and interactions between terrestrial, wetland, aquatic, and atmospheric systems across the major biomes. Prerequisite: BIOL 2610.

**BIOL 3730 Plant Diversity (4 credits)**
Classification, phylogeny, collection, field identification, and uses of wild plants. Lecture and laboratory. Prerequisites: BIOL 1211 and BIOL 1212 or consent of instructor.

**BIOL 3755 Medical Microbiology (3 credits)**
Introduction to pathogenic microorganisms, the interaction of pathogens and the immune system, transmission of infections, and methods of controlling infections. The laboratory portion of the class covers aseptic technique, pure culture techniques, microscopy, and diagnostic microbiology. This course is intended primarily for Nursing and Clinical Laboratory Science majors. Prerequisites: (BIOL 1211 or BIOL 1110) and (CHEM 1110 or CHEM 1111 or CHEM 2211).

**BIOL 3830 Aquatic Plants (4 credits)**
Survey of the morphology, physiology, taxonomy, systematics, and ecology of algae and aquatic vascular plants. Lecture, laboratory, and field study. Prerequisites: BIOL 1211 and BIOL 1212.

**BIOL 3840 Wetlands Ecology (3 credits)**
Survey course develops a basic understanding of the terminology, classification, ecology, values, and conservation of wetlands. Covers wetland systems from around the world, with emphasis on wetlands in North America. Prerequisites: BIOL 1211 and 1212.

**BIOL 3844 Wetlands Ecology Lab (1 credit)**
Laboratory course to supplement BIOL/ENVR 3840 Wetlands Ecology. Intended to strengthen a basic understanding of the terminology, classification, ecology, values, and conservation of wetlands. Prerequisite or Corequisite: BIOL/ENVR 3840 or consent of instructor.

**BIOL 3850 Marine Biology (3 credits)**
Lecture course introducing major concepts and theories. Includes physical and chemical components of the oceans, with special interest paid to the major groups of organisms living in marine systems. Emphasis on the different types of marine systems (coral reefs, mangroves, open water, etc.). Prerequisites: BIOL 1211 and 1212. Might not be offered every year.

**BIOL 3880 Wildlife Management Techniques (4 credits)**
This course emphasizes application of ecological principles, knowledge, and practical field skills to data collection used in the management of wildlife resources and their habitats. Use of literature, development of basic field and laboratory skills, and application of management and research principles are integral. Designed for upper level students who have met prerequisites, and graduate students, who are preparing for professional careers in wildlife conservation, natural sciences, and related areas of natural resources management. The course helps fulfill The Wildlife Society professional certification requirements. Prerequisite: BIOL 3610.

**BIOL 4030 Wetland Delineation and Classification (3 credits)**
This training course for the identification, delineation, and classification of wetlands covers the major types of wetlands and their general delineation procedures. Hydrological, soil, and vegetation characteristics will be used to identify and map wetland boundaries. Focuses on current regulations as established by the US Army Corps of Engineers' 1987 Wetland Delineation Manual with additional regulations specific for the state of Minnesota. Satisfies the requirements for basic delineation training as specified by the Corps of Engineers and certification programs in many states. Prerequisites: BIOL 1211, 1212, or consent of instructor.

**BIOL 4031 Advanced Wetland Delineation (2 credits)**
Training course intended to develop an advanced understanding of wetland delineation and regulation. Includes review of hydrological, physiochemical, and vegetation characteristics used to identify wetland boundaries, as well as specifics of wetland regulation, comprehensive wetland delineations, and post-field reporting. Covers procedures and regulations used by federal and state agencies, with an emphasis on those in Minnesota. Prerequisite: BIOL 4030 or consent of instructor.

**BIOL 4200 Freshwater Invertebrates (4 credits)**
Morphology and functional roles of representative freshwater invertebrates and their ecological interrelationships. Lecture and laboratory. Prerequisite: BIOL 1211, BIOL 1212, BIOL 3361, BIOL 3362, and junior status, or consent of instructor.

**BIOL 4210 Parasitology (4 credits)**
The biology of animal parasites, their identification, biochemistry, immunology, and epidemiology. Lecture and laboratory. Prerequisites: BIOL 1211, 1212, or consent of instructor.

**BIOL 4270 Histology (4 credits)**
Microscopic anatomy of vertebrate tissues and organs with functional correlations. Lecture and laboratory. Prerequisites: BIOL 1211 and BIOL 1212, BIOL 3250, and BIOL 3260. Might not be offered every year.

**BIOL 4330 Upland Wildlife Management (3 credits)**
An advanced pre-professional course for majors in natural resources, biology, and related fields. Lectures cover the history, philosophy, evolution, and application of wildlife management with a focus on upland wildlife as a renewable, sustainable natural resource. The course fulfills some professional certification requirements of The Wildlife Society and is recommended for students planning graduate study or employment in natural resources management. Prerequisite: BIOL 3610.

**BIOL 4360 Developmental and Tumor Biology (4 credits)**
Investigation of the mechanisms leading to the development of multicellular animal organisms from a fertilized egg. In contrast, the course also investigates how cells within a multicellular organism can become misregulated, leading to cancer. Lecture and lab. Prerequisites: BIOL 1211 and BIOL 1212. BIOL 2360 or BIOL 3380 is highly recommended. Might not be offered every year.

**BIOL 4510 Ornithology (4 credits)**
Morphology, ecology, behavior, classification, distribution, and evolution of birds. Lecture, laboratory, and field study (early morning field trips and one or two all-day field trips). Prerequisites: BIOL 1211 and BIOL 1212.

**BIOL 4520 Mammalogy (4 credits)**
Morphology, ecology, behavior, classification, distribution, and evolution of mammals. Lecture and laboratory. Collection or paper by each student. Prerequisites: BIOL 1211 and BIOL 1212.

**BIOL 4534 Ichthyology (4 credits)**
An overview of morphology, physiology, behavior, taxonomy, systematics, and ecology of fishes. This course emphasizes the evolution of ecological adaptations and the origin and conservation of biodiversity. Lecture, laboratory, and field work. Prerequisites: BIOL 1211 and BIOL 1212.

**BIOL 4545 Fisheries Management (4 credits)**
Theory and methods of fisheries management with an emphasis on quantitative methods and ecosystem management. Lecture and extensive field and laboratory work. Prerequisites: BIOL 1211, BIOL 1212, BIOL 3362, and STAT 2610. BIOL 4534 strongly recommended.

**BIOL 4620 Evolution (3 credits)**
Patterns and processes of biological evolution. Topics include phylogenies, speciation, extinctions, biogeography, adaptations, sexual selection, and behavior, with an emphasis on vertebrates and invertebrates. Prerequisite: BIOL 2360.

**BIOL 4623 Forest Ecology (4 credits)**
Fundamentals of forest ecology, including study of tree growth, tree demography, forest community dynamics, and ecosystem processes. Students also learn to identify forest trees native to the region and basic techniques of forest stand description. Prerequisite: BIOL 2610 or consent of instructor. Might not be offered every year.

**BIOL 4800 Advanced Project Certification (0 credit)**
A course designed to document a students successful completion of a professional or graduate school entrance exam, with a student placing in at least the 60th percentile. This course is one of the options for completing the capstone project requirement in Biology.

**BIOL 4894 Advanced Research Project I (2 credits)**
This course provides a culminating experience that integrates the knowledge and skills learned in previous courses and applies them to a scholarly activity. Examples of an advanced research project may include an original research project, internship, or shadowing experience with a professional. Prerequisite: Junior status and consent of instructor.

**BIOL 4895 Advanced Research Project II (2 credits)**
This course is a continuation of BIOL 4894 for students who undertake a year-long research project. The course provides a culminating experience that integrates the knowledge and skills learned in previous courses and applies them to a scholarly activity. Examples of an advanced research project may include an original research project, internship, or shadowing experience with a professional. Prerequisite: Junior status and consent of instructor.

## All-University Courses

The course numbers listed below, not always included in the semester class schedule, may be registered for by consent of the advisor, instructor, or department chair, or may be assigned by the department when warranted. Individual registration requires previous arrangement by the student and the completion of any required form or planning outline as well as any prerequisites.

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1960, 2960, 3960, 4960 SPECIAL PURPOSE INSTRUCTION

1970, 2970, 3970, 4970 INTERNSHIP
1980, 2980, 3980, 4980 RESEARCH
1990, 2990, 3990, 4990 THESIS

## Geology Courses

**GEOL 1110 Physical Geology (4 credits)**
Introduction to modern geology. Study of rocks and minerals and the processes operating on Earth. Lecture and laboratory. Liberal Education Goal Areas 3 (LC) & 10.

**GEOL 1120 Historical Geology (4 credits)**
Introduction to the history of Earth. Includes study of major fossil groups and significant geologic events with an emphasis on North America. Lecture and laboratory. Liberal Education Goal Area 3 (LC).

**GEOL 2110 Mineralogy and Petrology (4 credits)**
Identification and occurrence of minerals and igneous, metamorphic and sedimentary rocks. Introduction to diagnostic tests including spectrometer and polarizing microscope. Lecture and laboratory. Prerequisites: GEOL 1110 and GEOL 1120.

**GEOL 2730 Introduction to Planetary Science (4 credits)**
An introduction and examination of the solar system, planets, satellites, asteroids, comets, and meteorites. Atmospheric pheomena, magnetic fields, cosmic particles and the human presence in Space are included. Includes laboratory-like activities and exercises. Liberal Education Goal Area 3.

**GEOL 2925 People and the Environment: Earth Science Perspective (3 credits)**
Application of the Earth Sciences in understanding the causes of, and solutions to, environmental problems. Environmental perspectives on geologic hazards. Liberal Education Goal Area 10.

**GEOL 3120 Soils (4 credits)**
Introduction to principles of soil genesis, classification, physical and chemical properties, and biological signifigance. Lecture and laboratory. Prerequisites: BIOL 1211 and BIOL 1212 or consent of instructor. May not be offered every year.

**GEOL 3211 Environmental Hydrology (3 credits)**
Factors affecting the occurrence and availability of ground and surface waters. Water budgets and the hydrologic cycle, watershed behavior and flood prediction. Types of aquifers and confining beds, aquifer properties, groundwater flow, introduction to groundwater chemistry; water law and management. Prerequisites: GEOL 1110 or GEOL 1120, MATH 1170 or equivalent, or consent of instructor.

**GEOL 3212 Hydrogeology (3 credits)**
Groundwater flow to wells, aquifer test analysis, groundwater exploration techniques, application of computer models in groundwater studies, hydrogeologic field methods, contaminant hydrogeology, vadoze zone hydrology. Lecture and laboratory. Prerequisites: GEOL 3211 or consent of instructor. May not be offered every year.

**GEOL 3400 Glacial and Pleistocene Geology (3 credits)**
Modern concepts of glaciology and glacial geology. Interpretation of the phenomena and effects on the landscape. Lecture and laboratory. Prerequisite: GEOL 1110.

**GEOL 3500 Topics in Paleontology (3 credits)**
Introduction to major groups of organisms that are commonly preserved as fossils. Focus of class may vary between offerings; including invertebrate and vertebrate paleontology, introductory micropaleontology, palynology and pollen analysis. May be repeated as topics change. Lecture and laboratory. Prerequisite: GEOL 1120. (May not be offered every year.)

**GEOL 3600 Stratigraphy and Sedimentation (3 credits)**
Study of sedimentary rocks. Recognition of the physical and biologic factors affecting deposition. Introduction to stratigraphic principles. Lecture and laboratory. Prerequisites: GEOL 1110, GEOL 1120, and GEOL 2110 (Might not be offered every year.)

**GEOL 3700 Environmental Geophysics (3 credits)**
Introduction to geophysical processes and geophysical field methods commonly used in environmental evaluation. Interdisciplinary approach to an understanding of the physical environment. Lecture and laboratory. (Might not be offered every year.)

**GEOL 4910 Directed Independent Study (3 credits)**
Arranged individual study.

**GEOL 4970 Internship (3 credits)**
Graded Satisfactory/Unsatisfactory only. Student internships may be either full-time or part-time in a public or private agency appropriate to the degree objective. Internships consist of closely supervised periods of service that are arranged in advance of the course registration. Students should consult their advisor concerning prerequisites.

**GEOL 4980 Research (3 credits)**
Research carried out by the student that is based on appropriate methodology and scholarship.

### All-University Courses

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1980, 2980, 3980, 4980 RESEARCH
1990, 2990, 3990, 4990 THESIS

## Science Courses

**SCI 1110 Physical Science I (4 credits)**
A single-semester survey of Physical Science, with laboratory. Includes selected topics in physics, chemistry, geology, astronomy, and meteorology. Includes laboratory and computer sessions. Liberal Education Goal Area 3 (LC).

**SCI 1120 Physical Science II (4 credits)**
Science and Technology in Society (STS). An alternative perspective on Physical Science, using selected topics to discuss societal concerns and responsibilities. Includes laboratory and related computer-based small group sessions. Liberal Education Goal Area 3 (LC).

**SCI 2100 Astronomy (3 credits)**
A one-semester survey course, with emphasis on the history of astronomy, the science of stellar and solar system formation, the evolution of stars and galaxies, and modern cosmology and the fate of the universe. Includes laboratory simulations and field exercises. Liberal Education Goal Area 3.

**SCI 2200 Meteorology (3 credits)**
A one-semester survey course, with emphasis on the science of the atmospheric dynamics of weather and climate, precipitation, storms, and forecasting. Includes laboratory simulations and field exercises. Liberal Education Goal Area 3.

**SCI 2651 Study-Travel Natural Science (1-6 credits)**
Study Travel course in Science for Lab Ed Goal Area 3.

**SCI 2925 People and the Environment: Science Perspective (3 credits)**
The discussions of this section will include the specific relation between air, water, and solid waste pollution and the effect on the environment, including the following: acid rain, smog, global warming, measurement of environmental pollutants, and the role of science in solving pollution problems. Liberal Education Goal Area 10.

**SCI 2951 Study-Travel Natural Science (1-6 credits)**
Study Travel course in Science for Lib Ed Goal Area 3.

**SCI 3100 Integrative Science for Teachers (4 credits)**
An interdisciplinary laboratory-based course incorporating the areas of biology, chemistry, earth science, and physics. Focuses on conducting a series of investigations by Science Inquiry and demonstrating the connection between the various disciplines. Prerequisites: 2 courses each in the life sciences and physical sciences.

**SCI 3450 Science Methods For Grades 5-8 (4 credits)**
Strategies for implementation of the Minnesota Graduation Standards in the areas of Science and Inquiry for grades 5-8. Strategies include laboratory activities, discussions, the development of classroom activities, and the adaptation of these strategies for use in the elementary and high school science classroom. Prerequisite: Senior status or consent of instructor.

## All-University Courses

The course numbers listed below, not always included in the semester class schedule, may be registered for by consent of the advisor, instructor, or department chair, or may be assigned by the department when warranted. Individual registration requires previous arrangement by the student and the completion of any required form or planning outline as well as any prerequisites.

1910, 2910, 3910, 4910 DIRECTED INDEPENDENT STUDY
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# Economics

Economics is the social science that explores the problem of relative scarcity and its implications for problems of resource allocation, economic stability, growth and distribution. Applied fields, including labor relations, financial economics, international economics, and environmental economics, focus on specific aspects of these broad concerns. In the applied areas, students become cognizant of the interaction between economics and related disciplines.

The objectives of the Economics program are to (a) provide the theoretic and quantitative tools necessary to understand the development, structure, and operation of the contemporary economy; (b) develop skill in using those tools to analyze economic problems and to critically assess proposed solutions; and (c) provide information and guidance as students explore career opportunities in economics and develop their own post-graduate plans.

Note: Career options include staff and training positions in the financial sector, other service industries, and manufacturing. Graduate study opportunities include economics, law, business, and related fields.

**Programs**

- Economics, B.S. *major*
- Social Studies, B.A. (Economics Emphasis)*major*
- Economics *minor*

**Career Directions**

*See note in program description.*

Economist
Also: Graduate Study

## Economics, B.S. *major*

Required Credits: 40
Required GPA: 2.25

**I REQUIRED COURSES**

COMPLETE THE FOLLOWING COURSES:

- ECON 2000 Markets and Resource Allocation (3 credits)
- ECON 2100 Macroeconomics and the Business Cycle (3 credits)
- ECON 4000 Microeconomic Decisions (3 credits)
- ECON 4100 Macroeconomic Growth and Fluctuations (3 credits)

SELECT 1 OF THE FOLLOWING COURSES:

- BUAD 2231 Business Statistics I (3 credits)
- STAT 2610 Applied Statistics (4 credits)
- PSY 3401 Basic Statistics for Research (4 credits)

COMPLETE THE FOLLOWING COURSE:

- ECON 4920 Directed Group Study: Capstone Experience I (4 credits)

**II REQUIRED ELECTIVES**

Select 21 semester credits of electives with consent of advisor, 15 of which must be in Economics, and 15 of which must be at the 3000 level or higher.

**SUGGESTED SEMESTER SCHEDULE FOR ECONOMICS MAJOR, B.S.**

The following is a tentative schedule for economics majors. It is meant only as a rough guide. In particular, it is possible for a motivated student to finish the rest of the program requirements in less than three years.

Freshman

- Liberal Education courses

Sophomore

- ECON 2000 Markets and Resource Allocation (3 credits)
- ECON 2100 Macroeconomics and the Business Cycle (3 credits)
- BUAD 2231 Business Statistics I (3 credits)
  *or* PSY 3401 Basic Statistics for Research (4 credits)
  *or* STAT 2610 Applied Statistics (4 credits)
- Electives

Junior

- ECON 4000 Microeconomic Decisions (3 credits)
- ECON 4100 Macroeconomic Growth and Fluctuations (3 credits)
- Electives

Senior

- Remaining Electives

## Social Studies, B.A. *major*
## Economics Emphasis

**Note:** A minimum of 22 semester credits used to meet course requirements in I and II must be completed at Bemidji State University. No course grade below a C may be used to meet these requirements and a minimum GPA of 2.50 in this major is required for graduation. Students who desire a second field of emphasis are to consider completion a minor or a second major in that field. Such action may complement and increase the marketability of this major.

Required Credits: 48
Required GPA: 2.50

**I REQUIRED CORE CURRICULUM**

CAPSTONE COURSE
COMPLETE THE FOLLOWING COURSE:

- POL 4500 Thesis and Career Preparation (3 credits)

ECONOMICS COURSES
SELECT 1 OF THE FOLLOWING COURSES:

- ECON 2000 Markets and Resource Allocation (3 credits)
- ECON 2100 Macroeconomics and the Business Cycle (3 credits)

GEOGRAPHY COURSES
SELECT 1 OF THE FOLLOWING COURSES

- GEOG 2100 Introduction to Physical Geography (3 credits)
- GEOG 2200 Introduction to Human Geography (3 credits)

GEOGRAPHY COURSES
SELECT 1 OF THE FOLLOWING COURSES:

- GEOG 3410 Geography of North America (3 credits)
- GEOG 3800 Regional Geography (1-3 credits)
- GEOG 3810 Geography of Europe (3 credits)
- GEOG 3820 Geography of East, South, and Southeast Asia (3 credits)
- GEOG 3840 Geography of Africa (3 credits)

UPPER DIVISION WORLD HISTORY
SELECT 1 OF THE FOLLOWING COURSES

- HST 2218 Medieval Europe (3 credits)
- HST 2228 Renaissance and Reformation Europe (3 credits)
- HST 2580 Russia (3 credits)
- HST 2600 Topics in History (3 credits)
- HST 2660 Women and History (3 credits)
- HST 2700 The History of World Religions (3 credits)
- HST 2800 Reacting to the Past (3 credits)
- HST 3159 The World at War, 1931-1945 (3 credits)
- HST 3208 Greece and Rome, 1500 BCE-500 CE (3 credits)
- HST 3258 The Roman Civil Law Tradition (3 credits)
- HST 3268 The Roman Revolution, 200 BCE-CE 14 (3 credits)
- HST 3277 Readings and Research in European History (3 credits)
- HST 3409 Colonialism and Modernization in the Non-Western World (3 credits)
- HST 3419 East Asia (3 credits)
- HST 3429 South and Southeast Asia (3 credits)
- HST 3449 Middle East (3 credits)
- HST 3459 Latin America (3 credits)

UPPER DIVISION U.S. HISTORY
SELECT 1 OF THE FOLLOWING COURSES

- HST 2600 Topics in History (3 credits)
- HST 2610 Minnesota History (3 credits)
- HST 2640 United States Diplomatic History (3 credits)
- HST 2667 Men and Women: Gender in America (3 credits)
- HST 2800 Reacting to the Past (3 credits)
- HST 3117 American Revolutionary Era, 1763-1800 (3 credits)
- HST 3128 Testing Democracy: Reform in Nineteenth-Century America (3 credits)
- HST 3137 Civil War and Reconstruction, 1844-1877 (3 credits)
- HST 3159 The World at War, 1931-1945 (3 credits)
- HST 3187 American West (3 credits)

POLITICAL SCIENCE COURSES
SELECT 1 OF THE FOLLOWING COURSES

- POL 1200 Introduction to American Politics (3 credits)
- POL 1300 Introduction to International Relations (3 credits)
- POL 1400 Introduction to Comparative Politics (3 credits)

POLITICAL SCIENCE COURSES
SELECT 1 OF THE FOLLOWING COURSES

- POL 3100 American Foreign Policy (3 credits)
- POL 3130 Asian Political Development (3 credits)
- POL 3150 Topics in Political Science (1-3 credits)
- POL 3160 Comparative European Politics (3 credits)
- POL 3170 International Relations (3 credits)
- POL 3180 International Law and Organization (3 credits)
- POL 3190 International Political Economy (3 credits)
- POL 3200 Minnesota Politics (3 credits)
- POL 3210 Public Administration (3 credits)
- POL 3230 Environmental Politics (3 credits)
- POL 3410 Legislative and Executive Relations (3 credits)
- POL 3420 Campaigns and Elections (3 credits)
- POL 4200 Constitutional Law (3 credits)

SOCIOLOGY COURSES
COMPLETE THE FOLLOWING COURSES:

- SOC 2200 Social Movements and Change (3 credits)
- SOC 3010 Social Theory (3 credits)

**II REQUIRED FIELD OF EMPHASIS**

SELECT 1 OF THE FOLLOWING COURSES
Note: Select the course not taken in the core.

- ECON 2000 Markets and Resource Allocation (3 credits)
- ECON 2100 Macroeconomics and the Business Cycle (3 credits)

SELECT 15 SEMESTER CREDITS OF ELECTIVES FROM ECONOMICS

## Economics *minor*

Multiple Credentials
Any additional major, minor or certificate in a degree must have at least 6 credits of course work not used to meet the requirements of another major, minor or certificate in the degree.

Required Credits: 18
Required GPA: 2.00

**I REQUIRED COURSES**

COMPLETE THE FOLLOWING COURSES:

- ECON 2000 Markets and Resource Allocation (3 credits)
- ECON 2100 Macroeconomics and the Business Cycle (3 credits)

**II REQUIRED ELECTIVES**

Select 12 semester credits of electives in Economics,
3 of which must be at the 4000 level.

## Economics Courses

**ECON 1500 Historical Development of the Mixed Economy (3 credits)**
Examines the origins and developments of the mixed economy, identifying its key institutions and their evolution. Differences in the historical experiences of different regions/nations are explored, as is the availability of alternative economic systems. Liberal Education Goal Area 8.

**ECON 2000 Markets and Resource Allocation (3 credits)**
Develops microeconomic principles to explain and evaluate markets as mechanisms to signal buyers preferences and induce suppliers' response. Considers the origin and historical development of market economies as well as theory. Liberal Education Goal Areas 5 and 9.

**ECON 2100 Macroeconomics and the Business Cycle (3 credits)**
Develops macroeconomic concepts to explore the determination of aggregate output, employment, and the price level in modern mixed economies. The interaction between the financial sector and commodity markets and the potential of monetary and fiscal policy to guide the course of the macro economy are also explored. Prerequisite: ECON 2000 or consent of instructor. Liberal Education Goal Area 5.

**ECON 2150 Interdependence of the Hawaiian Economy and the Environment: Field Projects (1-3 credits)**
Economic concepts and techniques in environmental valuation, sustainable development, and green accounting based on the report "Environmental Valuation and the Hawaiian Economy." Interconnection of the Hawaiian economy and environment through investigation of major environmental issues such as the role of forests, water quality and quantity, coral reef ecosystems, extractive activities versus eco-tourism, and invasive species. Direct observation of investment efforts toward achieving sustainability. Liberal Education Goal Area 5.

**ECON 2925 People and the Environment - Economic Perspective (3 credits)**
This course is a module linked to the interdisciplinary environmental issues course, People and the Environment. It is an integrative study of the natural, social, value-based, and citizen-action contexts for environmental awareness. The disciplinary component surveys economic approaches to and institutional settings for environmental decision making, including our behaviors as consumers and producers. Interdisciplinary perspectives are evaluated in light of different concepts of social well being, including economic efficiency, equity, and sustainability. Liberal Education Goal Area 10.

**ECON 3010 Public Economics (3 credits)**
Examines the rationale of public provision of selected goods and services and compares alternative tax structures in terms of their effects on the rest of the economy and their capacity for financing government expenditures. The effects of the political process on taxes and spending and selected topics in intergovernmental fiscal relations are also considered. Prerequisites: ECON 2000 and ECON 2100.

**ECON 3040 Environmental Economics (3 credits)**
Examines environmental problems as consequence of market's failure to accurately value environmental resources. Alternative private and public policies are examined in terms of their effectiveness in improving the efficiency and equity with which water, air and other resources are allocated. Prerequisite: ECON 2000 or consent of instructor. (Also offered under ENVR 3040.)

**ECON 3070 Labor Economics (3 credits)**
Analyzes structure and operation of labor markets as a background to exploring issues and topics related to collective bargaining and public policy. The impact of technological and institutional change on labor markets is considered. Prerequisite: ECON 2000 or consent of instructor.

**ECON 3200 Economics of the Financial Sector (3 credits)**
Looks at the operation of intermediaries and securities markets to allocate financial capital and price financial assets. The role of the central bank and related agencies in guiding the financial sector and influencing the macroeconomy are considered. Prerequisites: ECON 2000 and ECON 2100 or consent of instructor.

**ECON 3230 Benefit/Cost Analysis (3 credits)**
Develops the theoretical base of benefit/cost analysis in reviewing public investment projects and examines the application of this tool by specific agencies. Emphasis on the meaning and treatment of risk in policy analysis. Prerequisite: ECON 2000 or consent of instructor.

**ECON 3400 International Trade and Finance (3 credits)**
The origins and effects of trade and capital flows. The role of international financial markets in influencing trade flows and international investment. Prerequisite: ECON 2000.

**ECON 3700 Current Economic Topics (1-3 credits)**
Customized course providing in-depth investigation of a current issue of theory or policy. Content and credits may vary. Prerequisites: ECON 2000 and ECON 2100.

**ECON 4000 Microeconomic Decisions (3 credits)**
Individual decision making of households and firms. Resource allocation via market exchange in alternative market structures. Prerequisites: ECON 2000 and ECON 2300 or consent of instructor.

**ECON 4100 Macroeconomic Growth and Fluctuations (3 credits)**
Examines the sources of economic growth and cyclical fluctuations in a market economy, techniques for forecasting economic activity, and the potential for policy to improve performance. Prerequisites: ECON 2000 and ECON 2100 or consent of instructor.

**ECON 4920 Directed Group Study: Capstone Experience I (4 credits)**
Investigates advanced topics in micro and macro alternating years. Students are responsible for considerable out-of-class research and in-class presentations. Note: An appropriate internship may substitute for ECON 4920 in the major with department's permission. Prerequisites: ECON 4000 and ECON 4100, or consent of instructor.

### All-University Courses

The course numbers listed below, not always included in the semester class schedule, may be registered for by consent of the advisor, instructor, or department chair, or may be assigned by the department when warranted. Individual registration requires previous arrangement by the student and the completion of any required form or planning outline as well as any prerequisites.

1910, 2910, 3910, 4910 DIRECTED INDEPENDENT STUDY
1920, 2920, 3920, 4920 DIRECTED GROUP STUDY
1930, 2930, 3930, 4930 EXPERIMENTAL COURSE
1940, 2940, 3940, 4940 IN-SERVICE COURSE
1950, 2950, 3950, 4950 WORKSHOP, INSTITUTE, TOUR
1960, 2960, 3960, 4960 SPECIAL PURPOSE INSTRUCTION
1970, 2970, 3970, 4970 INTERNSHIP
1980, 2980, 3980, 4980 RESEARCH
1990, 2990, 3990, 4990 THESIS

# English

The English Department offers programs and courses in literature and writing, and courses in speech communication.

*English Department Vision*
To foster the relevance and urgency of expression in forms such as literature, film, scholarship, creative writing, and rhetoric.

*English Department Mission*
To foster the ability to appreciate, evaluate, and create the myriad forms of practical and aesthetic communication.

Students intending to major in English, whether in literature, teaching, or writing, should declare their intentions no later than the beginning of their junior year. English majors are encouraged to study an additional language and to participate in a junior year study abroad program such as Eurospring. All University students are introduced to college-level writing through first-year writing and are encouraged to take other English courses.

**Note:** Transfer students planning to major in English must take a minimum of 11 semester credits of courses from the Bemidji State University English major, including at least two 3000- or 4000-level courses. All requirements for the major must be met. In addition, the Department of English strongly recommends that one writing course beyond the College Writing sequence be taken at Bemidji State.

**Programs**

- Creative and Professional Writing, B.F.A. *major*
- Creative and Professional Writing, B.F.A. *major*
- Elementary Education, B.S. (Communication Arts & Literature Endorsement (Teacher Licensure))*major*
- English Education, B.S. ((Teacher Licensure))*major*
- English, B.A. *major*
- Electronic Writing *minor*
- English *minor*
- Writing Emphasis *emph*
- Electronic Writing Certificate *cert*

**Career Directions**

Writer/Editor/Copy Editor for magazines, newspapers, publishers, corporations, industry, institutions, and government agencies

Writer/Editor for commercial and government news media and Web production

Public Information Specialist/Publicist/Communications Specialist for corporations, industry, institutions, and government agencies

Related career positions requiring skills in critical thinking and writing

English teacher in secondary education

Graduate study should also be considered

**Preparation**

*Recommended High School Courses*

Literature

Speaking

Writing

## Creative and Professional Writing, B.F.A. *major*

Required Credits: 42
Required GPA: 2.25

**I REQUIRED WRITING COMPONENT (PART I)**

A.SELECT 12 SEMESTER CREDITS FROM THE FOLLOWING:

NOTE: SOME COURSES EITHER HAVE PRE-REQUISITES NOT REQUIRED IN THIS MAJOR OR REQUIRE CONSENT OF INSTRUCTOR

*FICTION:*

- ENGL 3115 Writing Fiction I (3 credits)
- ENGL 4116 Writing Fiction II (3 credits)

*POETRY:*

- ENGL 3125 Writing Poetry I (3 credits)
- ENGL 4126 Writing Poetry II (3 credits)

*CREATIVE NONFICTION:*

- ENGL 3145 Writing Creative Nonfiction I (3 credits)
- ENGL 4146 Writing Creative Nonfiction II (3 credits)

*PR WRT/TECH CM:*

- ENGL 2150 Technical Writing (3 credits)
- ENGL 3155 Professional Writing (3 credits)
- ENGL 4166 Freelance Writing (3 credits)

*ELEC WRT&PUBL:*

- ENGL 3177 Weblogs and Wikis (3 credits)
- ENGL 3179 Elements of Electronic Rhetoric (3 credits)
- ENGL 4169 Web Content Writing (3 credits)

*INTERNSHIPS:*

- ENGL 4861 Internship in Literary Publishing I (3 credits)

- ENGL 4862 Internship in Literary Publishing II (3 credits)
- ENGL 1970 Internship (3 credits)
- ENGL 2970 Internship (3 credits)
- ENGL 3970 Internship (3 credits)
- ENGL 4970 Internship (3 credits)

**REQUIRED WRITING COMPONENT (PART II)**

b. SELECT 6 ADDITIONAL CREDITS FROM THE ABOVE AREAS (AT THE 3000 LEVEL OR ABOVE; MAY INCLUDE ARRANGED COURSES) AND/OR FROM THE FOLLOWING COURSES:

- MASC 3340 Editing (3 credits)
- MASC 3790 Screenwriting (3 credits)

**II REQUIRED LITERATURE COMPONENT**

A. SELECT 9 SEMESTER CREDITS FROM THE FOLLOWING:

- ENGL 2350 American Literature, to 1865 (3 credits)
- ENGL 2355 American Literature, 1865 to Present (3 credits)
- ENGL 2357 British and World Drama (3 credits)
- ENGL 2358 British and World Poetry (3 credits)
- ENGL 2359 British and World Prose (3 credits)

B. SELECT 12 ADDITIONAL CREDITS FROM THE FOLLOWING COURSES; THOSE COURSES WITH "TOPICS" IN THE TITLE MAY BE TAKEN MULTIPLE TIMES WITH DIFFERENT TOPIC SUBTITLES:

- ENGL 3540 Literature for Young Adults (3 credits)
- ENGL 3580 The English Language (3 credits)
- ENGL 3600 Author Topics (3 credits)
- ENGL 3606 Culture Topics (3 credits)
- ENGL 3607 Film Topics (3 credits)
- ENGL 3608 Genre Topics (3 credits)
- ENGL 3609 Period Topics (3 credits)
- ENGL 4420 Shakespeare and His Age (3 credits)
- ENGL 4429 Shakespeare for Teachers (3 credits)
- ENGL 4700 Advanced Author Topics (3 credits)
- ENGL 4706 Advanced Culture Topics (3 credits)
- ENGL 4707 Advanced Film Topics (3 credits)
- ENGL 4708 Advanced Genre Topics (3 credits)
- ENGL 4709 Advanced Period Topics (3 credits)
- PHIL 2240 Aesthetics (3 credits)
- PHIL 2310 Philosophy in Literature (3 credits)

**IV REQUIRED SENIOR PROJECT**

COMPLETE THE FOLLOWING COURSE:

- ENGL 4883 B.F.A. Capstone (3 credits)

## Creative and Professional Writing, B.F.A. *major*

**CREATIVE AND PROFESSIONAL WRITING, B.F.A. REQUIREMENTS**

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MUST COMPLETE ALL AREAS WITH A TOTAL OF AT LEAST 42 SEMESTER CREDITS AND A 2.25 GPA

**I REQUIRED WRITING COMPONENT (PART I)**

A. SELECT 12 CREDITS FROM THE FOLLOWING COURSES:

NOTE: SOME COURSES EITHER HAVE PREREQUISITES NOT REQUIRED IN THIS MAJOR OR REQUIRE CONSENT OF INSTRUCTOR.

FICTION:

- ENGL 3115 Writing Fiction I (3 credits)
- ENGL 4116 Writing Fiction II (3 credits)

POETRY:

- ENGL 3125 Writing Poetry I (3 credits)
- ENGL 4126 Writing Poetry II (3 credits)

CREATIVE NONFICTION:

- ENGL 3145 Writing Creative Nonfiction I (3 credits)
- ENGL 4146 Writing Creative Nonfiction II (3 credits)

PROFESSIONAL WRITING/TECHNICAL COMMUNICATION

- ENGL 2150 Technical Writing (3 credits)
- ENGL 3155 Professional Writing (3 credits)
- ENGL 4166 Freelance Writing (3 credits)

ELECTRONIC WRITING AND PUBLISHING

- ENGL 3177 Weblogs and Wikis (3 credits)
- ENGL 3179 Elements of Electronic Rhetoric (3 credits)
- ENGL 4169 Web Content Writing (3 credits)
- ENGL4170

INTERNSHIPS:

- ENGL 4861 Internship in Literary Publishing I (3 credits)
- ENGL 4862 Internship in Literary Publishing II (3 credits)
- ENGL 1970 Internship (3 credits)
- ENGL 2970 Internship (3 credits)
- ENGL 3970 Internship (3 credits)
- ENGL 4970 Internship (3 credits)

**REQUIRED WRITING COMPONENT (PART II)**

B. SELECT 6 ADDITIONAL CREDITS FROM THE ABOVE AREAS (AT THE 3000 LEVEL OR ABOVE; MAY INCLUDE ARRANGED COURSES) AND/OR FROM THE FOLLOWING COURSES:

- MASC 3340 Editing (3 credits)
- MASC 3790 Screenwriting (3 credits)

**II REQUIRED LITERATURE COMPONENT (PART I)**

A.SELECT 9 SEMESTER CREDITS FROM THE FOLLOWING COURSES:

- ENGL 2350 American Literature, to 1865 (3 credits)
- ENGL 2355 American Literature, 1865 to Present (3 credits)
- ENGL 2357 British and World Drama (3 credits)
- ENGL 2358 British and World Poetry (3 credits)
- ENGL 2359 British and World Prose (3 credits)

B. Select 12 additional credits from the following courses; those courses with "Topics" in the title may be taken multiple times with different topic subtitles

- ENGL 3540 Literature for Young Adults (3 credits)
- ENGL 3580 The English Language (3 credits)

- ENGL 3600 Author Topics (3 credits)
- ENGL 3606 Culture Topics (3 credits)
- ENGL 3607 Film Topics (3 credits)
- ENGL 3608 Genre Topics (3 credits)
- ENGL 3609 Period Topics (3 credits)
- ENGL 4420 Shakespeare and His Age (3 credits)
- ENGL 4429 Shakespeare for Teachers (3 credits)
- ENGL 4700 Advanced Author Topics (3 credits)
- ENGL 4706 Advanced Culture Topics (3 credits)
- ENGL 4707 Advanced Film Topics (3 credits)
- ENGL 4708 Advanced Genre Topics (3 credits)
- ENGL 4709 Advanced Period Topics (3 credits)
- PHIL 2240 Aesthetics (3 credits)
- PHIL 2310 Philosophy in Literature (3 credits)

**IV REQUIRED SENIOR PROJECT**

COMPLETE THE FOLLOWING COURSE:

- ENGL 4883 B.F.A. Capstone (3 credits)

## Elementary Education, B.S. *major* Communication Arts & Literature Endorsement (Teacher Licensure)

Required Credits: 86
Required GPA: 2.50

**I ELEMENTARY EDUCATION FOUNDATION COURSES**

COMPLETE THE FOLLOWING COURSES:

- ED 3100 Introduction to the Foundations of Public School Education (3 credits)
- ED 3110 Educational Psychology (3 credits)
- ED 3140 Human Relations In Education (3 credits)
- ED 3350 Pedagogy: Planning for Instruction (3 credits)
- ED 3780 Adaptation and Management: Designing the Learning Environment (3 credits)
- ED 4799 The Professional Teacher (1 credit)
- HLTH 3400 Health and Drugs in Society (2 credits)

COMPLETE THE FOLLOWING COURSE, UP TO 12 CREDITS:

- ED 4820 Student Teaching - Elementary (1-16 credits)

**II ELEMENTARY EDUCATION MAJOR COURSES**

COMPLETE THE FOLLOWING COURSES:

- ED 3201 Language Arts I (3 credits)
- ED 3202 Language Arts II (3 credits)
- ED 3203 Language Arts III (3 credits)
- ED 3221 Elementary Math Methods (3 credits)
- ED 3222 Elementary Science Methods (3 credits)
- ED 3240 Social Studies in the Elementary School (3 credits)
- ED 3301 Creative Expressions (3 credits)
- ED 3302 Creative Process Foundations: Patterns (3 credits)
- HLTH 4100 Teaching Elementary School Health (2 credits)
- PHED 4200 Methods of Teaching Elementary Physical Education to Classroom Teachers (1 credit)

COMPLETE THE FOLLOWING COURSE:

- MATH 1011 Mathematics for Elementary School Teachers I (3 credits)

COMPLETE THE FOLLOWING COURSE:

- MATH 1013 Mathematics for Elementary School Teachers II (3 credits)

**COMMUNICATION ARTS AND LITERATURE ENDORSEMENT**

COMPLETE THE FOLLOWING COURSES:

- ED 3208 Developmental Reading in Middle School (3 credits)
- ED 3217 Curriculum Enrichment through Media Resources (3 credits)
- ED 3417 Teaching and Learning in the Middle School (3 credits)
- ED 4737 Content Area Reading (3 credits)
- ENGL 2355 American Literature, 1865 to Present (3 credits)
- ENGL 3540 Literature for Young Adults (3 credits)
- ENGL 3580 The English Language (3 credits)

COMPLETE THE FOLLOWING COURSE (5 CREDITS):

- ED 4840 Student Teaching - Special Fields (1-12 credits)

**COMMUNICATION ARTS AND LITERATURE ENDORSEMENT**

SELECT 1 OF THE FOLLOWING COURSES:

- ENGL 2357 British and World Drama (3 credits)
- ENGL 2358 British and World Poetry (3 credits)
- ENGL2370
- ENGL2375

**PROFESSIONAL EDUCATION COURSES MUST BE COMPLETED**

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## English Education, B.S. *major* (Teacher Licensure)

Note: The name that will appear on the licensure is Communication Arts and Literature.

Required Credits: 84
Required GPA: 2.50

**I REQUIRED COURSES**

COMPLETE THE FOLLOWING COURSES:

- ENGL 2350 American Literature, to 1865 (3 credits)
- ENGL 2355 American Literature, 1865 to Present (3 credits)
- ENGL 3540 Literature for Young Adults (3 credits)
- ENGL 3580 The English Language (3 credits)
  *or* ML 3430 Linguistics (3 credits)
- ENGL 4420 Shakespeare and His Age (3 credits)
  *or* ENGL 4429 Shakespeare for Teachers (3 credits)
- ENGL 4455 Seminar: Literary Criticism and Theory (3 credits)

SELECT 2 OF THE FOLLOWING COURSES:

- ENGL 2357 British and World Drama (3 credits)
- ENGL 2358 British and World Poetry (3 credits)
- ENGL 2359 British and World Prose (3 credits)

SELECT 1 OF THE FOLLOWING COURSES:

- ENGL 2150 Technical Writing (3 credits)
- ENGL 3155 Professional Writing (3 credits)
- ENGL 3177 Weblogs and Wikis (3 credits)
- ENGL 3179 Elements of Electronic Rhetoric (3 credits)
- ENGL 3530 Teaching Writing with Technology (3 credits)

**II REQUIRED ELECTIVES**

Select 12 semester credits from the following courses;
at least three credits must be at the 4000 level.
The courses may be taken multiple times with different
topic subtitles.

- ENGL 3101 Advanced Writing (3 credits)
- ENGL 3183 Topics in Writing or Rhetoric (3 credits)
- ENGL 3600 Author Topics (3 credits)
- ENGL 3606 Culture Topics (3 credits)
- ENGL 3607 Film Topics (3 credits)
- ENGL 3608 Genre Topics (3 credits)
- ENGL 3609 Period Topics (3 credits)
- ENGL 4183 Advanced Topics in Writing or Rhetoric (3 credits)
- ENGL 4700 Advanced Author Topics (3 credits)
- ENGL 4706 Advanced Culture Topics (3 credits)
- ENGL 4707 Advanced Film Topics (3 credits)
- ENGL 4708 Advanced Genre Topics (3 credits)
- ENGL 4709 Advanced Period Topics (3 credits)

**III REQUIRED FOR LICENSURE**

COMPLETE THE FOLLOWING COURSES:

-NOTE-

ED 4737 IS REQUIRED FOR LICENSURE AND IS LISTED UNDER THE SECONDARY EDUCATION CORE REQUIREMENT

ED 3208 HAS A PREREQUISITE NOT INCLUDED IN THIS MAJOR.

- ED 3208 Developmental Reading in Middle School (3 credits)
- ENGL 3520 Writing for the Secondary School Teacher (3 credits)
- ENGL 3550 Methods of Teaching English and Communication (4 credits)
- MASC 1100 Mass Media and Society (3 credits)

**REQUIRED PROFESSIONAL EDUCATION COURSES**

COMPLETE THE FOLLOWING COURSES:

- ED 3100 Introduction to the Foundations of Public School Education (3 credits)
- ED 3110 Educational Psychology (3 credits)
- ED 3140 Human Relations In Education (3 credits)
- ED 3350 Pedagogy: Planning for Instruction (3 credits)
- ED 3780 Adaptation and Management: Designing the Learning Environment (3 credits)
- ED 4737 Content Area Reading (3 credits)
- ED 4799 The Professional Teacher (1 credit)
- HLTH 3400 Health and Drugs in Society (2 credits)

Complete 12 credits of student teaching:

- ED 4830 Student Teaching - Secondary (1-12 credits)

## English, B.A. *major*

Required Credits: 42
Required GPA: 2.25

**I REQUIRED COURSES**

COMPLETE THE FOLLOWING COURSES:

- ENGL 2350 American Literature, to 1865 (3 credits)
- ENGL 2355 American Literature, 1865 to Present (3 credits)
- ENGL 2357 British and World Drama (3 credits)
- ENGL 2358 British and World Poetry (3 credits)
- ENGL 2359 British and World Prose (3 credits)
- ENGL 4420 Shakespeare and His Age (3 credits)
- ENGL 4455 Seminar: Literary Criticism and Theory (3 credits)

**II REQUIRED ELECTIVES**

LITERATURE/FILM ELECTIVES

Select 18 credits from the following courses; those
courses with "Topics" in the title may be taken
multiple times with different topic subtitles:

- ENGL 3540 Literature for Young Adults (3 credits)
- ENGL 3580 The English Language (3 credits)
- ENGL 3600 Author Topics (3 credits)
- ENGL 3606 Culture Topics (3 credits)
- ENGL 3607 Film Topics (3 credits)
- ENGL 3608 Genre Topics (3 credits)
- ENGL 3609 Period Topics (3 credits)
- ENGL 4429 Shakespeare for Teachers (3 credits)
- ENGL 4700 Advanced Author Topics (3 credits)
- ENGL 4706 Advanced Culture Topics (3 credits)
- ENGL 4707 Advanced Film Topics (3 credits)
- ENGL 4708 Advanced Genre Topics (3 credits)
- ENGL 4709 Advanced Period Topics (3 credits)
- PHIL 2240 Aesthetics (3 credits)
- PHIL 2310 Philosophy in Literature (3 credits)

WRITING ELECTIVES

Select 3 credits from the following courses:

- ENGL 3115 Writing Fiction I (3 credits)
- ENGL 3125 Writing Poetry I (3 credits)
- ENGL 3145 Writing Creative Nonfiction I (3 credits)
- ENGL 3155 Professional Writing (3 credits)
- ENGL 3177 Weblogs and Wikis (3 credits)
- ENGL 3179 Elements of Electronic Rhetoric (3 credits)
- ENGL 3183 Topics in Writing or Rhetoric (3 credits)
- ENGL 4183 Advanced Topics in Writing or Rhetoric (3 credits)

**SUGGESTED SEMESTER SCHEDULE FOR ENGLISH MAJOR, B.A.**

The following is a list of suggested English Major, B.A. courses arranged by year. This schedule is intended to help students plan their courses in an orderly fashion; however, these are only suggestions and this schedule is flexible.

Freshman

- Liberal Education requirements

Sophomore

- ENGL 2350 American Literature, to 1865 (3 credits)
- ENGL 2355 American Literature, 1865 to Present (3 credits)
- ENGL 2357 British and World Drama (3 credits)
- ENGL 2358 British and World Poetry (3 credits)
- ENGL 2359 British and World Prose (3 credits)
- Complete Liberal Education requirements

Junior

- ENGL 4420 Shakespeare and His Age (3 credits)
- English electives

Senior

- ENGL 4455 Seminar: Literary Criticism and Theory (3 credits)
- English electives

## Electronic Writing *minor*

Required Credits: 15
Required GPA: 2.00

**I REQUIRED COURSES**

COMPLETE THE FOLLOWING COURSES:

- ENGL 2150 Technical Writing (3 credits)
- ENGL 3177 Weblogs and Wikis (3 credits)
- ENGL 3179 Elements of Electronic Rhetoric (3 credits)
- ENGL 4169 Web Content Writing (3 credits)

**II PROJECT**

COMPLETE THE FOLLOWING COURSE:

- ENGL 4180 Capstone Project in Electronic Rhetoric (3 credits)

## English *minor*

Required Credits: 24
Required GPA: 2.00

**I REQUIRED COURSES**

COMPLETE THE FOLLOWING COURSES:

- ENGL 2150 Technical Writing (3 credits)
  *or* ENGL 2152 Argument and Exposition (3 credits)
- ENGL 2350 American Literature, to 1865 (3 credits)
- ENGL 2355 American Literature, 1865 to Present (3 credits)
- ENGL 4420 Shakespeare and His Age (3 credits)

SELECT 2 OF THE FOLLOWING COURSES:

- ENGL 2357 British and World Drama (3 credits)
- ENGL 2358 British and World Poetry (3 credits)
- ENGL 2359 British and World Prose (3 credits)

**II REQUIRED ELECTIVES**

SELECT 6 SEMESTER CREDITS OF ENGLISH COURSES AT THE 2000 LEVEL OR ABOVE

## Writing Emphasis *emph*

Required Credits: 18
Required GPA: 2.25

**I REQUIRED CORE**

COMPLETE THE FOLLOWING COURSES:

- ENGL 2152 Argument and Exposition (3 credits)
  *or* ENGL 3150 Writing In The Disciplines (3 credits)
- ENGL 3101 Advanced Writing (3 credits)

**II REQUIRED ELECTIVE SPECIALIZATION**

SELECT 12 SEMESTER CREDITS FROM THE FOLLOWING COURSES;
Courses may be selected from both areas.

*A:CREATIVE WRTG*

- ENGL 2190 Introduction to Creative Writing (3 credits)
- ENGL 3115 Writing Fiction I (3 credits)
- ENGL 3125 Writing Poetry I (3 credits)
- ENGL 3145 Writing Creative Nonfiction I (3 credits)
- ENGL 4116 Writing Fiction II (3 credits)
- ENGL 4126 Writing Poetry II (3 credits)
- ENGL 4146 Writing Creative Nonfiction II (3 credits)

*B:PROF. WRTG*

- ENGL 2150 Technical Writing (3 credits)
- ENGL 3155 Professional Writing (3 credits)
- ENGL 3177 Weblogs and Wikis (3 credits)
- ENGL 3179 Elements of Electronic Rhetoric (3 credits)
- ENGL 4156 Professional Presentations (3 credits)
- ENGL 4169 Web Content Writing (3 credits)
- ENGL 4861 Internship in Literary Publishing I (3 credits)
- ENGL 4862 Internship in Literary Publishing II (3 credits)
- MASC 1840 Introduction to Media Writing (3 credits)
- MASC 2700 Reporting and Writing (3 credits)

## Electronic Writing Certificate *cert*

Required Credits: 12
Required GPA: 2.25

**I REQUIRED COURSES**

SELECT 1 OF THE FOLLOWING COURSES:

- ENGL 2150 Technical Writing (3 credits)
- ENGL 3155 Professional Writing (3 credits)

COMPLETE THE FOLLOWING COURSES:

- ENGL 3177 Weblogs and Wikis (3 credits)
- ENGL 3179 Elements of Electronic Rhetoric (3 credits)
- ENGL 4169 Web Content Writing (3 credits)

## English Courses

**ENGL 1151 Composition (3 credits)**
Instruction and practice aimed at improving the quality and efficiency of writing processes, with emphasis on fluency, voice, style, and versatility. Includes adaptation of nonfiction prose to various general audiences, introduction to academic research and citation, and a component on oral presentation. Liberal Education Goal Area 1.

**ENGL 1970 Internship (3 credits)**
Graded Satisfactory/Unsatisfactory only. Student internships may be either full-time or part-time in a public or private agency appropriate to the degree objective. Internships consist of closely supervised periods of service that are arranged in advance of the course registration. Students should consult their advisor concerning prerequisites.

**ENGL 2150 Technical Writing (3 credits)**
Instruction and practice in writing about technical materials and subjects. Liberal Education Goal Area 11.

**ENGL 2152 Argument and Exposition (3 credits)**
Instruction and practice in writing for various academic and similar contexts, with particular focus on formal and informal argument for specific rather than general audiences. Includes seeking out, selecting, using, and documenting written sources, and a component on oral presentation. Prerequisite: ENGL 1151. Liberal Education Goal Area 1.

**ENGL 2190 Introduction to Creative Writing (3 credits)**
Introduction to the study of the forms and styles of poetry, fiction, creative nonfiction, and other genres, with practice in a workshop format. Liberal Education Goal Area 6.

**ENGL 2250 Understanding Literature (3 credits)**
Reading and critical appreciation of various types of literature, such as autobiography, drama, film, novel, poetry, and specialized genres such as "Women in Literature," Bible as Literature," "Science Fiction & Fantasy." Liberal Education Goal Area 6.

**ENGL 2340 The American Film (3 credits)**
A study of various aspects of American movies. Liberal Education Goal Area 6.

**ENGL 2350 American Literature, to 1865 (3 credits)**
A study of the development of American letters from a historical perspective. The ideas, social, and cultural relationships that shape the emerging American literature are examined through the study of the works and the literary characteristics of representative writers. Liberal Education Goal Areas 6 and 7.

**ENGL 2355 American Literature, 1865 to Present (3 credits)**
A study of representative American writers and their works, covering the period from 1900 to the present. The course considers the development of American literature as a significant force on the literary scene. Liberal Education Goal Area 6 & 7.

**ENGL 2357 British and World Drama (3 credits)**
Selective survey of dramatic literature from the British Isles and other countries outside the USA. Liberal Education Goal Areas 6 & 8 Might not be offered every year.

**ENGL 2358 British and World Poetry (3 credits)**
Selective survey of poetry from the British Isles and other countries outside the USA. Liberal Education Goal Areas 6 & 8. Might not be offered every year.

**ENGL 2359 British and World Prose (3 credits)**
Selective survey of novels, short stories, and other literary prose works from the British Isles and other countries outside the USA. Liberal Education Goal Areas 6 & 8. Might not be offered every year.

**ENGL 2410 Myth (3 credits)**
Study of sacred stories that emerge from pre-literate stages of culture through early literary works. Mythic traditions studied include Greek and may include one or more others (such as Norse, Irish, Ojibwe). Liberal Education Goal Areas 6 & 8.

**ENGL 2925 People and the Environment: American Nature Writers (3 credits)**
A course in the classics of nature writing designed to acquaint the student with great outdoor writers, especially those who stress conservation and ecology. Liberal Education Goal Area 10.

**ENGL 2926 People and the Environment: Writing and Nature (3 credits)**
This course leads students to examine, in writing, their own individual perceptions of and response to natural environments and to consider how those perceptions and responses are culturally influence. Liberal Education Goal Area 10.

**ENGL 2953 Study-Travel, English (1-6 credits)**
Study Travel course in Political Science for Liberal Education Goal Area 5.

**ENGL 2954 Study-Travel Humanities and the Arts (1-6 credits)**
Study Travel course in English for Liberal Education Goal Area 6.

**ENGL 2956 Study-Travel Humanities and the Arts (1-6 credits)**
Study Travel course in English for Lib Ed Goal Area 8.

**ENGL 2970 Internship (3 credits)**
Graded Satisfactory/Unsatisfactory only. Student internships may be either full-time or part-time in a public or private agency appropriate to the degree objective. Internships consist of closely supervised periods of service that are arranged in advance of the course registration. Students should consult their advisor concerning prerequisites.

**ENGL 3101 Advanced Writing (3 credits)**
A nonfiction writing course for exploring a wide variety of prose processes, audiences, and formats. Includes revision and editing, style, and the authorial voice. May include exploration of opportunities for publishing. Prerequisite: Junior status or consent of instructor.

**ENGL 3115 Writing Fiction I (3 credits)**
An introduction to the study of the form and style of fiction, with practice, study, and writing in a workshop format. Prerequisite: Sophomore status or consent of instructor.

**ENGL 3125 Writing Poetry I (3 credits)**
An introduction to the study of form and style of poetry, with practice, study, and writing in a workshop format. Prerequisite: Sophomore status or consent of instructor.

**ENGL 3145 Writing Creative Nonfiction I (3 credits)**
Introduction to the study of the form and style of creative nonfiction, with practice in a workshop format. Prerequisite: Sophomore status or consent of instructor.

**ENGL 3150 Writing In The Disciplines (3 credits)**
Examine and practice argument and researched writing as conducted in the various academic disciplines. Prerequisites: ENGL 1151 and completion of 64 semester credits. Liberal Education Goal Area 1. Might not be offered every year.

**ENGL 3155 Professional Writing (3 credits)**
Written communication in professional settings. Gathering information, analyzing audiences, and assessing conventional formats of professional writing. Drafting, testing, and revising documents. Development of a portfolio project.

**ENGL 3177 Weblogs and Wikis (3 credits)**
This course, which is theory-grounded and project-based, gives students the opportunity to explore two new and related forms of online publishing, study, and written expression. Students design and pursue a ten-week project in creating a weblog or a wiki. Computer-intensive. Prerequisites: ENGL 1151, and ENGL 2152 or ENGL 3150, or consent of instructor.

**ENGL 3179 Elements of Electronic Rhetoric (3 credits)**
Introduction to the principles of applied rhetoric integrated with continued writing experience. Also introduces fundamentals of hypertext. Students investigate email, Web page and site design, online discussion, wikis, and weblogs, and create and anlyze online texts and exchanges. Computer-intensive. Prerequisites: ENGL 1151, and ENGL 2152 or ENGL 3150, or consent of instructor.

**ENGL 3183 Topics in Writing or Rhetoric (3 credits)**
This course fills a gap in the department's Topics series at the 3000 level allowing faculty to shape specific courses under the rubric that address professional, genre, and rhetorical types of writing courses not currently addressed in the department's curriculum. This course is repeatable for up to 9 credits.

**ENGL 3510 Tutoring Writing (1-3 credits)**
Orientation to writing-center theory and practice. Prerequisites: Completion of Liberal Education Category I, sophomore status, and consent of instructor.

**ENGL 3520 Writing for the Secondary School Teacher (3 credits)**
A study of the problems and principles of composition; designed to provide techniques for the teaching of composition in secondary schools.

**ENGL 3530 Teaching Writing with Technology (3 credits)**
Focuses on the theory and practice of teaching secondary and university-level writing with computer technology, including using computer-mediated communication, web-supplemented teaching, and student writing for web publication.

**ENGL 3540 Literature for Young Adults (3 credits)**
A study of a variety of literature appropriate for adolescents, including criteria for evaluating literary merit; criteria for evaluating classroom usefulness; and effective ways to manage book challenges and censorship issues.

**ENGL 3550 Methods of Teaching English and Communication (4 credits)**
Basic aims, materials, and methods with a practicum experience.

**ENGL 3580 The English Language (3 credits)**
A linguistically-based study of the structure, grammar, and historical development of the English language. Might not be offered every year.

**ENGL 3600 Author Topics (3 credits)**
In-depth study of the work of one or more authors (e.g., Chaucer, Emily Dickinson), including application of critical theory. May be retaken multiple times with different topic subtitles. Might not be offered every year.

**ENGL 3606 Culture Topics (3 credits)**
In-depth study of the literature of a culture (e.g., American Indian Literature, Ethnic Literature), including application of critical theory. May be retaken multiple times with different topic subtitles. Might not be offered every year.

**ENGL 3607 Film Topics (3 credits)**
In-depth study of film (e.g., Women in Film, International Film), including application of critical theory. May be retaken multiple times with different topic subtitles. Might not be offered every year.

**ENGL 3608 Genre Topics (3 credits)**
In-depth study of a literary genre (e.g., The American Novel, Dramatic Literature), including application of critical theory. May be retaken multiple times with different topic subtitles. Might not be offered every year.

**ENGL 3609 Period Topics (3 credits)**
In-depth study of the literature of a specific period (e.g., Medieval Literature, Modern Literature), including application of critical theory. May be retaken multiple times with different topic subtitles. Might not be offered every year.

**ENGL 3970 Internship (3 credits)**
Graded Satisfactory/Unsatisfactory only. Student internships may be either full-time or part-time in a public or private agency appropriate to the degree objective. Internships consist of closely supervised periods of service that are arranged in advance of the course registration. Students should consult their advisor concerning prerequisites.

**ENGL 4116 Writing Fiction II (3 credits)**
A workshop course designed to offer the student further practice, analysis, and theoretical study in the composition of fiction. May be repeated one time. Prerequisite: ENGL 3115 with grade of B or better, or consent of instructor.

**ENGL 4126 Writing Poetry II (3 credits)**
A workshop course designed to offer the student further practice, analysis, and theoretical study in the composition of poetry. May be repeated one time. Prerequisite: ENGL 3125 with grade B or better, or consent of instructor.

**ENGL 4146 Writing Creative Nonfiction II (3 credits)**
Workshop offering further practice, analysis, and theoretical study in the composition of creative nonfiction. May be repeated one time. Prerequisite: ENGL 3145 with grade of B or better, or consent of instructor.

**ENGL 4156 Professional Presentations (3 credits)**
Presentation skills for professional and technical writing. Audience analysis, visual communication, researching and organizing a presentation, presenting complex material. Emphasizes use of computers.

**ENGL 4166 Freelance Writing (3 credits)**
A practicum in writing articles for commercial magazines. Includes identifying topics, researching markets, editing, copy editing; writing queries and proposals; and studying standard practice and intellectual property rights. Prerequisite: ENGL or MASC writing course at 3000 level or above, or consent of instructor. (Might not be offered every year.)

**ENGL 4169 Web Content Writing (3 credits)**
Practice in web design fundamentals and creating written content for the Web. Addresses the rhetorical and formal challenges of developing Web content, including information architecture, page design, link text, writing for search engines, copy editing. Prerequisites: ENGL 3177 or consent of instructor.

**ENGL 4180 Capstone Project in Electronic Rhetoric (3 credits)**
A teacher- and student-designed capstone project building on learning in prerequisite courses in the Electronic Writing minor. In consultation with a qualified faculty member, students design and complete a capstone project in electronic rhetoric or electronic writing that is professional and publishable in nature and quality, or that can serve as documentary evidence appropriate to the field. Prerequisites: Completion of required courses in the Electronic Writing Minor: ENGL 2150, ENGL 3177, ENGL 3179, and ENGL 4169.

**ENGL 4183 Advanced Topics in Writing or Rhetoric (3 credits)**
This course fills a gap in the department's Topics series at the 4000 level allowing faculty to shape specific courses under the rubric that address professional, genre, and rhetorical types of writing courses not currently addressed in the department's curriculum. This course is repeatable for up to 9 credits.

**ENGL 4420 Shakespeare and His Age (3 credits)**
A study of Shakespeare's works in the context of his times and of the work of his major contemporaries. Might not be offered every year.

**ENGL 4429 Shakespeare for Teachers (3 credits)**
A study of Shakespeare's plays and poems in contexts appropriate for high school and community college teachers. Might not be offered every year.

**ENGL 4455 Seminar: Literary Criticism and Theory (3 credits)**
Theory, history, and methods of literary criticism from Plato to the present.

**ENGL 4700 Advanced Author Topics (3 credits)**
In-depth study of the work of one or more authors (e.g., Chaucer, Emily Dickinson), including application of multiple critical theories. May be retaken multiple times with different topic subtitles. Might not be offered every year.

**ENGL 4706 Advanced Culture Topics (3 credits)**
In-depth study of the literature of a culture (e.g., American Indian Literature, Ethnic Literature), including application of multiple critical theories. May be retaken multiple times with different topic subtitles. Might not be offered every year.

**ENGL 4707 Advanced Film Topics (3 credits)**
In-depth study of film (e.g., Women in Film, International Film), including application of multiple critical theories. May be retaken multiple times with different topic subtitles. Might not be offered every year.

**ENGL 4708 Advanced Genre Topics (3 credits)**
In-depth study of a literary genre (e.g., The American Novel, Dramatic Literature), including application of multiple critical theories. May be retaken multiple times with different topic subtitles. Might not be offered every year.

**ENGL 4709 Advanced Period Topics (3 credits)**
In-depth study of the literature of a specific period (e.g., Medieval Literature, Modern Literature), including application of multiple critical theories. May be retaken multiple times with different topic subtitles. Might not be offered every year.

**ENGL 4861 Internship in Literary Publishing I (3 credits)**
Introduction to the practices of literary publishing. Students serve on the editorial board for a literary anthology, gain experience in submitting their own work for publication, and gain an understanding of standard practice and issues in literary markets, and careers in literary publishing. Prerequisites: Junior or senior status and any two of the following courses: ENGL 3115, ENGL 3125,ENGL 3145, ENGL 4116, ENGL 4126, ENGL 4146, THTR 2030, THTR 3030.

**ENGL 4862 Internship in Literary Publishing II (3 credits)**
Students who have taken ENGL 4861 continue their studies in the practices of literary publishing. They serve as managing editors for the literary anthologies edited in the class, and present to the class and lead discussions on submitting work for publication, standard practice and issues in literary publishing, and careers in literary publishing.

**ENGL 4881 Senior Project, Part I (1 credit)**
In consultation with and with consent of an advisor, design and begin Senior Project II. Prerequisite: Senior status.

**ENGL 4882 Senior Project, Part II (2 credits)**
In consultation with and with consent of an advisor, complete a B.F.A. senior project that is professional and publishable in nature and quality, or can serve as documentary evidence appropriate to admission to graduate programs. Prerequisite: ENGL 4881.

**ENGL 4883 B.F.A. Capstone (3 credits)**
The purpose of this course is to guide students through an extended creative writing project as a fulfillment of their creative writing endeavors. Prerequisite: Completion of all B.F.A. major credits.

**ENGL 4970 Internship (3 credits)**
Graded Satisfactory/Unsatisfactory only. Student internships may be either full-time or part-time in a public or private agency appropriate to the degree objective. Internships consist of closely supervised periods of service that are arranged in advance of the course registration. Students should consult their advisor concerning prerequisites.

## All-University Courses

The course numbers listed below, not always included in the semester class schedule, may be registered for by consent of the advisor, instructor, or department chair, or may be assigned by the department when warranted. Individual registration requires previous arrangement by the student and the completion of any required form or planning outline as well as any prerequisites.

1910, 2910, 3910, 4910 DIRECTED INDEPENDENT STUDY
1920, 2920, 3920, 4920 DIRECTED GROUP STUDY
1930, 2930, 3930, 4930 EXPERIMENTAL COURSE
1940, 2940, 3940, 4940 IN-SERVICE COURSE
1950, 2950, 3950, 4950 WORKSHOP, INSTITUTE, TOUR
1960, 2960, 3960, 4960 SPECIAL PURPOSE INSTRUCTION
1970, 2970, 3970, 4970 INTERNSHIP
1980, 2980, 3980, 4980 RESEARCH
1990, 2990, 3990, 4990 THESIS

# Environmental Studies

Environmental scientists work toward defining and solving environmental problems caused by the actions of human beings. Their interdisciplinary training is broad-based and encompasses the natural sciences, mathematics, economics, and the social sciences. Their primary ethical concern is human stewardship of the earth.

Students in the Environmental Studies program are concerned with both the technological problems and social aspects of environmental issues. Working in cooperation with the Center for Environmental, Earth and Space Studies, Economics, and Sociology, they may participate in applied research. Their interdisciplinary course work includes the study of scientific principles used in environmental problem solving, and the study of the impact of economics, politics, and other social systems on environmental policies and practices.

Because of the breadth of study necessary to prepare for upper division Environmental Studies courses, students are urged to declare in the major during their freshman or sophomore year.

At least 50 percent of credits in the major should be at 3000/4000 levels.

**Programs**

- Environmental Studies, B.S. (Environmental Management Emphasis)*major*
- Environmental Studies, B.S. (Environmental Policy and Planning Emphasis)*major*
- Environmental Studies, B.S. (Environmental Toxicology Emphasis)*major*
- Environmental Studies, B.S. (Geohydrology Emphasis)*major*
- Environmental Studies, B.S. (Outdoor Education Emphasis)*major*
- Environmental Studies, B.S. (Environmental Chemistry Emphasis)*major*
- Environmental Studies, B.S. (Environmental Engineering Science Emphasis)*major*
- Environmental Studies, B.S. (Ecosystem Studies Emphasis)*major*
- Environmental Studies *minor*

**Career Directions**

Chemist
Ecologist
Engineering Technician
Environmental Chemist
Environmental Consultant
Environmental Economist
Environmental Engineer
Environmental Engineering Scientist
Environmental Manager
Environmental Outdoor Educator
Environmental Policy Maker and Planner
Environmental Scientist
Environmental Sociologist
Environmental Specialist
Environmental Technologist
Environmental Toxicologist
Geohydrologist
Hydrogeologist
Natural Resources Specialist
Pollution Control Specialist
Research Lab Technician
Researcher
Teacher
Wastewater Monitor
Wastewater Treatment Operator
Water Quality Specialist
Water Treatment Operator
Also: Graduate Study

**Preparation**

*Recommended High School Courses*

Biology
Chemistry
Government
Math
Physics
Political Science
Social Science

## Environmental Studies, B.S. *major*
## Environmental Management Emphasis

Required Credits: 89
Required GPA: 2.25

**I REQUIRED CORE COURSES**

COMPLETE THE FOLLOWING COURSES:

- BIOL 1211 Introductory Biology I (4 credits)
- BIOL 1212 Introductory Biology II (4 credits)
- BIOL 2610 General Ecology (3 credits)
- ENVR 2000 Introduction to Environmental Science (3 credits)
- ENVR 4210 Environmental Law and Policy (3 credits)
- GEOL 1110 Physical Geology (4 credits)
- POL 3230 Environmental Politics (3 credits)
- SOC 3050 Environmental Sociology (3 credits)

COMPLETE THE FOLLOWING COURSE:

- ENVR 3920 DGS: Seminar in Environmental Controversies (2 credits)

COMPLETE ONE OF THE FOLLOWING COURSES:

- ENVR 4970 Internship (3 credits)
  *or* ENVR 4990 Thesis (3 credits)

COMPLETE THE FOLLOWING COURSE:
Enroll for 1 credit - two different terms

- ENVR 4920 Directed Group Study: Senior Seminar (1 credit)

SELECT 1 OF THE FOLLOWING COURSES:

- CHEM 1111 General Chemistry I (4 credits)

- CHEM 2211 Principles of Chemistry I (4 credits)

SELECT 1 OF THE FOLLOWING COURSES:

- CHEM 1112 General Chemistry II (4 credits)
- CHEM 2212 Principles of Chemistry II (4 credits)

SELECT 1 OF THE FOLLOWING COURSES:

- ECON 3040 Environmental Economics (3 credits)
- ENVR 3040 Environmental Economics (3 credits)

SELECT 1 OF THE FOLLOWING COURSES:

- SOC 3001 Social Statistics (3 credits)
- STAT 2610 Applied Statistics (4 credits)

**ENVIRONMENTAL MANAGEMENT EMPHASIS**

COMPLETE THE FOLLOWING COURSES:

- ENVR 3300 Environmental Management and Safety (3 credits)
- ENVR 4200 Wastewater Treatment (3 credits)
- ENVR 4220 Sampling and Analysis (4 credits)
- ENVR 4230 Air Pollution Technology (4 credits)
- ENVR 4240 Waste Management (4 credits)
- ENVR 4260 Risk Assessment and Auditing (3 credits)
- TADT 4880 Total Quality Management (3 credits)
- TADT 4897 Project Management (4 credits)
- MATH 2471 Calculus I (5 credits)
- PHYS 1101 General Physics I (4 credits)

SELECT 4 SEMESTER CREDITS OF ELECTIVES APPROVED BY CEESS ADVISOR.

**Suggested Semester Schedule for Environmental Studies major, B.S.**

The following is a list of Environmental Studies Major Courses arranged by year. This schedule is intended to help students plan their courses in an orderly fashion; however, these are only suggestions and this schedule is flexible.

Freshman

- BIOL 1211 Introductory Biology I (4 credits)
- BIOL 1212 Introductory Biology II (4 credits)
- MATH 1170 College Algebra (4 credits)
- MATH 1470 Precalculus (5 credits)
  or MATH 2471 Calculus I (5 credits)
- Liberal Education requirements

Sophomore

- BIOL 2610 General Ecology (3 credits)
- ENVR 2000 Introduction to Environmental Science (3 credits)
- Select one chemistry sequence:
  1. CHEM 1111 General Chemistry I (4 credits)
     CHEM 1112 General Chemistry II (4 credits)
  2. CHEM 2211 Principles of Chemistry I (4 credits)
     CHEM 2212 Principles of Chemistry II (4 credits)
- GEOL 1110 Physical Geology (4 credits)
- PHYS 1101 General Physics I (4 credits)
- SOC 3001 Social Statistics (3 credits)
  or STAT 2610 Applied Statistics (4 credits)
- Liberal Education requirements

Junior

- ENVR 3920 DGS: Seminar in Environmental Controversies (2 credits)
- ENVR 4210 Environmental Law and Policy (3 credits)
- POL 3230 Environmental Politics (3 credits)
- ECON 3040 Environmental Economics (3 credits)
  or ENVR 3040 Environmental Economics (3 credits)
- SOC 3050 Environmental Sociology (3 credits)
- Emphasis courses
- Liberal Education requirements

Senior

- ENVR 4920 Directed Group Study: Senior Seminar (1 credit)
- ENVR 4970 Internship (3 credits)
  or ENVR 4990 Thesis (3 credits)
- Complete Emphasis courses
- Complete Liberal Education requirements

## Environmental Studies, B.S. *major*
## Environmental Policy and Planning Emphasis

Required Credits: 75
Required GPA: 2.25

**I REQUIRED CORE COURSES**

Notes: Students who select the Environmental Management
Emphasis should select ENVR 4970 Internship (3 credits) Internship rather than
ENVR 4990 Thesis (3 credits) Senior Thesis.

COMPLETE THE FOLLOWING COURSES:

- BIOL 1211 Introductory Biology I (4 credits)
- BIOL 1212 Introductory Biology II (4 credits)
- BIOL 2610 General Ecology (3 credits)
- ENVR 2000 Introduction to Environmental Science (3 credits)
- ENVR 4210 Environmental Law and Policy (3 credits)
- GEOL 1110 Physical Geology (4 credits)
- POL 3230 Environmental Politics (3 credits)
- SOC 3050 Environmental Sociology (3 credits)

COMPLETE THE FOLLOWING COURSE:

- ENVR 3920 DGS: Seminar in Environmental Controversies (2 credits)

COMPLETE THE FOLLOWING COURSE:
Enroll for 1 credit - two different terms

- ENVR 4920 Directed Group Study: Senior Seminar (1 credit)

SELECT 1 OF THE FOLLOWING COURSES:

- CHEM 1111 General Chemistry I (4 credits)
- CHEM 2211 Principles of Chemistry I (4 credits)

SELECT 1 OF THE FOLLOWING COURSES:

- CHEM 1112 General Chemistry II (4 credits)
- CHEM 2212 Principles of Chemistry II (4 credits)

SELECT 1 OF THE FOLLOWING COURSES:

- ECON 3040 Environmental Economics (3 credits)

- ENVR 3040 Environmental Economics (3 credits)

SELECT 1 OF THE FOLLOWING COURSES:

- ENVR 4970 Internship (3 credits)
- ENVR 4990 Thesis (3 credits)

SELECT 1 OF THE FOLLOWING COURSES:

- SOC 3001 Social Statistics (3 credits)
- STAT 2610 Applied Statistics (4 credits)

**ENVIRONMENTAL POLICY AND PLANNING EMPHASIS**

COMPLETE THE FOLLOWING COURSES:

- ECON 2000 Markets and Resource Allocation (3 credits)
- ECON 3230 Benefit/Cost Analysis (3 credits)
- ENVR 3600 Environmental Justice and Sustainability (3 credits)
- GEOG 3231 Introduction to Geographic Information Systems (3 credits)
- GEOG 2400 Introduction to Planning (3 credits)
- GEOG 3560 Metropolitan Land Use Planning (3 credits)
- POL 1200 Introduction to American Politics (3 credits)
- POL 3200 Minnesota Politics (3 credits)
- POL 3210 Public Administration (3 credits)

**Suggested Semester Schedule for Environmental Studies major, B.S.**

The following is a list of Environmental Studies Major Courses arranged by year. This schedule is intended to help students plan their courses in an orderly fashion; however, these are only suggestions and this schedule is flexible.

Freshman

- BIOL 1211 Introductory Biology I (4 credits)
- BIOL 1212 Introductory Biology II (4 credits)
- MATH 1170 College Algebra (4 credits)
- MATH 1470 Precalculus (5 credits)
  or MATH 2471 Calculus I (5 credits)
- Liberal Education requirements

Sophomore

- BIOL 2610 General Ecology (3 credits)
- ENVR 2000 Introduction to Environmental Science (3 credits)
- Select one chemistry sequence:
  1. CHEM 1111 General Chemistry I (4 credits)
     CHEM 1112 General Chemistry II (4 credits)
  2. CHEM 2211 Principles of Chemistry I (4 credits)
     CHEM 2212 Principles of Chemistry II (4 credits)
- GEOL 1110 Physical Geology (4 credits)
- PHYS 1101 General Physics I (4 credits)
- SOC 3001 Social Statistics (3 credits)
- or STAT 2610 Applied Statistics (4 credits)
- Liberal Education requirements

Junior

- ENVR 3920 DGS: Seminar in Environmental Controversies (2 credits)
- ENVR 4210 Environmental Law and Policy (3 credits)
- POL 3230 Environmental Politics (3 credits)
- ECON 3040 Environmental Economics (3 credits)
  or ENVR 3040 Environmental Economics (3 credits)
- SOC 3050 Environmental Sociology (3 credits)
- Emphasis courses
- Liberal Education requirements

Senior

- ENVR 4920 Directed Group Study: Senior Seminar (1 credit)
- ENVR 4970 Internship (3 credits)
  or ENVR 4990 Thesis (3 credits)
- Complete Emphasis courses
- Complete Liberal Education requirements

## Environmental Studies, B.S. *major*
## Environmental Toxicology Emphasis

Required Credits: 86
Required GPA: 2.25

**I REQUIRED CORE COURSES**

Notes: Students who select the Environmental Management Emphasis should select ENVR 4970 Internship rather than ENVR 4990 Senior Thesis.

COMPLETE THE FOLLOWING COURSES:

- BIOL 1211 Introductory Biology I (4 credits)
- BIOL 1212 Introductory Biology II (4 credits)
- BIOL 2610 General Ecology (3 credits)
- ENVR 2000 Introduction to Environmental Science (3 credits)
- ENVR 4210 Environmental Law and Policy (3 credits)
- GEOL 1110 Physical Geology (4 credits)
- POL 3230 Environmental Politics (3 credits)
- SOC 3050 Environmental Sociology (3 credits)

COMPLETE THE FOLLOWING COURSE:

- ENVR 3920 DGS: Seminar in Environmental Controversies (2 credits)

COMPLETE THE FOLLOWING COURSE:
Enroll for 1 credit - two different terms

- ENVR 4920 Directed Group Study: Senior Seminar (1 credit)

SELECT 1 OF THE FOLLOWING COURSES:

- CHEM 1111 General Chemistry I (4 credits)
- CHEM 2211 Principles of Chemistry I (4 credits)

SELECT 1 OF THE FOLLOWING COURSES:

- CHEM 1112 General Chemistry II (4 credits)
- CHEM 2212 Principles of Chemistry II (4 credits)

SELECT 1 OF THE FOLLOWING COURSES:

- ECON 3040 Environmental Economics (3 credits)
- ENVR 3040 Environmental Economics (3 credits)

SELECT 1 OF THE FOLLOWING COURSES:

- ENVR 4970 Internship (3 credits)
- ENVR 4990 Thesis (3 credits)

SELECT 1 OF THE FOLLOWING COURSES:

- SOC 3001 Social Statistics (3 credits)
- STAT 2610 Applied Statistics (4 credits)

**ENVIRONMENTAL TOXICOLOGY EMPHASIS**

COMPLETE THE FOLLOWING COURSES:

- CHEM 3311 Organic Chemistry I (3 credits)
- CHEM 3312 Organic Chemistry II (3 credits)
- CHEM 4411 Biochemistry I (3 credits)
- CHEM 4412 Biochemistry II (3 credits)
- ENVR 4400 Environmental Microbiology (3 credits)
- ENVR 4500 Environmental Toxicology (4 credits)
- PHYS 1101 General Physics I (4 credits)

SELECT 1 OF THE FOLLOWING COURSES:

- BIOL 3260 Medical Physiology (4 credits)
- BIOL 3720 Plant Form and Function (4 credits)

SELECT 1 OF THE FOLLOWING COURSES:

- CHEM 4101 Environmental Chemistry (3 credits)
- ENVR 4101 Environmental Chemistry (3 credits)

COMPLETE THE FOLLOWING COURSE:

- MATH 2471 Calculus I (5 credits)

SELECT 3 SEMESTER CREDITS OF ELECTIVES APPROVED BY CEESS ADVISOR.

**Suggested Semester Schedule for Environmental Studies major, B.S.**

The following is a list of Environmental Studies Major Courses arranged by year. This schedule is intended to help students plan their courses in an orderly fashion; however, these are only suggestions and this schedule is flexible.

Freshman

- BIOL 1211 Introductory Biology I (4 credits)
- BIOL 1212 Introductory Biology II (4 credits)
- MATH 1170 College Algebra (4 credits)
- MATH 1470 Precalculus (5 credits)
  or MATH 2471 Calculus I (5 credits)
- Liberal Education requirements

Sophomore

- BIOL 2610 General Ecology (3 credits)
- ENVR 2000 Introduction to Environmental Science (3 credits)
- Select one Chemistry sequence:
  1. CHEM 1111 General Chemistry I (4 credits)
     CHEM 1112 General Chemistry II (4 credits)
  2. CHEM 2211 Principles of Chemistry I (4 credits)
     CHEM 2212 Principles of Chemistry II (4 credits)
- GEOL 1110 Physical Geology (4 credits)
- PHYS 1101 General Physics I (4 credits)
- SOC 3001 Social Statistics (3 credits)
  or STAT 2610 Applied Statistics (4 credits)
- Liberal Education requirements

Junior

- ENVR 3920 DGS: Seminar in Environmental Controversies (2 credits)
- ENVR 4210 Environmental Law and Policy (3 credits)
- POL 3230 Environmental Politics (3 credits)
- ECON 3040 Environmental Economics (3 credits)
  or ENVR 3040 Environmental Economics (3 credits)
- SOC 3050 Environmental Sociology (3 credits)
- Emphasis courses
- Liberal Education requirements

Senior

- ENVR 4920 Directed Group Study: Senior Seminar (1 credit)
- ENVR 4970 Internship (3 credits)
  or ENVR 4990 Thesis (3 credits)
- Complete Emphasis courses
- Complete Liberal Education requirements

## Environmental Studies, B.S. *major*
## Geohydrology Emphasis

Required Credits: 84
Required GPA: 2.25

**I REQUIRED CORE COURSES**

Notes: Students who select the Environmental Management Emphasis should select ENVR 4970 Internship rather than ENVR 4990 Senior Thesis.

COMPLETE THE FOLLOWING COURSES:

- BIOL 1211 Introductory Biology I (4 credits)
- BIOL 1212 Introductory Biology II (4 credits)
- BIOL 2610 General Ecology (3 credits)
- ENVR 2000 Introduction to Environmental Science (3 credits)
- ENVR 4210 Environmental Law and Policy (3 credits)
- GEOL 1110 Physical Geology (4 credits)
- POL 3230 Environmental Politics (3 credits)
- SOC 3050 Environmental Sociology (3 credits)

COMPLETE THE FOLLOWING COURSE:

- ENVR 3920 DGS: Seminar in Environmental Controversies (2 credits)

COMPLETE THE FOLLOWING COURSE:
Enroll for 1 credit - two different terms

- ENVR 4920 Directed Group Study: Senior Seminar (1 credit)

SELECT 1 OF THE FOLLOWING COURSES:

- CHEM 1111 General Chemistry I (4 credits)
- CHEM 2211 Principles of Chemistry I (4 credits)

SELECT 1 OF THE FOLLOWING COURSES:

- CHEM 1112 General Chemistry II (4 credits)
- CHEM 2212 Principles of Chemistry II (4 credits)

SELECT 1 OF THE FOLLOWING COURSES:

- ECON 3040 Environmental Economics (3 credits)
- ENVR 3040 Environmental Economics (3 credits)

SELECT 1 OF THE FOLLOWING COURSES:

- ENVR 4970 Internship (3 credits)
- ENVR 4990 Thesis (3 credits)

SELECT 1 OF THE FOLLOWING COURSES:

- SOC 3001 Social Statistics (3 credits)
- STAT 2610 Applied Statistics (4 credits)

**GEOHYDROLOGY EMPHASIS**

COMPLETE THE FOLLOWING COURSES:

- ENVR 4050 Geochemistry (3 credits)
- GEOL 1120 Historical Geology (4 credits)
- GEOL 2110 Mineralogy and Petrology (4 credits)
- GEOL 3211 Environmental Hydrology (3 credits)
- GEOL 3212 Hydrogeology (3 credits)
- GEOL 3400 Glacial and Pleistocene Geology (3 credits)
- MATH 2471 Calculus I (5 credits)
- MATH 2472 Calculus II (5 credits)
- PHYS 1101 General Physics I (4 credits)

SELECT 2 SEMESTER CREDITS OF ELECTIVES APPROVED BY CEESS ADVISOR.

**Suggested Semester Schedule for Environmental Studies major, B.S.**

The following is a list of Environmental Studies Major Courses arranged by year. This schedule is intended to help students plan their courses in an orderly fashion; however, these are only suggestions and this schedule is flexible.

Freshman

- BIOL 1211 Introductory Biology I (4 credits)
- BIOL 1212 Introductory Biology II (4 credits)
- MATH 1170 College Algebra (4 credits)
- MATH 1470 Precalculus (5 credits)
  or MATH 2471 Calculus I (5 credits)
- Liberal Education requirements

Sophomore

- BIOL 2610 General Ecology (3 credits)
- ENVR 2000 Introduction to Environmental Science (3 credits)
- Select one Chemistry sequence:
  1. CHEM 1111 General Chemistry I (4 credits)
     CHEM 1112 General Chemistry II (4 credits)
  2. CHEM 2211 Principles of Chemistry I (4 credits)
     CHEM 2212 Principles of Chemistry II (4 credits)
- GEOL 1110 Physical Geology (4 credits)
- PHYS 1101 General Physics I (4 credits)
- SOC 3001 Social Statistics (3 credits)
  or STAT 2610 Applied Statistics (4 credits)
- Liberal Education requirements

Junior

- ENVR 3920 DGS: Seminar in Environmental Controversies (2 credits)
- ENVR 4210 Environmental Law and Policy (3 credits)
- POL 3230 Environmental Politics (3 credits)
- ECON 3040 Environmental Economics (3 credits)
  or ENVR 3040 Environmental Economics (3 credits)
- SOC 3050 Environmental Sociology (3 credits)
- Emphasis courses
- Liberal Education requirements

Senior

- ENVR 4920 Directed Group Study: Senior Seminar (1 credit)
- ENVR 4970 Internship (3 credits)
  or ENVR 4990 Thesis (3 credits)
- Complete Emphasis courses
- Complete Liberal Education requirements

## Environmental Studies, B.S. *major*
## Outdoor Education Emphasis

Required Credits: 76
Required GPA: 2.25

**I REQUIRED CORE COURSES**

COMPLETE THE FOLLOWING COURSES:

- BIOL 1211 Introductory Biology I (4 credits)
- BIOL 1212 Introductory Biology II (4 credits)
- BIOL 2610 General Ecology (3 credits)
- ENVR 2000 Introduction to Environmental Science (3 credits)
- ENVR 4210 Environmental Law and Policy (3 credits)
- GEOL 1110 Physical Geology (4 credits)
- POL 3230 Environmental Politics (3 credits)
- SOC 3050 Environmental Sociology (3 credits)

COMPLETE THE FOLLOWING COURSE:

- ENVR 3920 DGS: Seminar in Environmental Controversies (2 credits)

COMPLETE THE FOLLOWING COURSE:

- ENVR 4920 Directed Group Study: Senior Seminar (1 credit)

SELECT 1 OF THE FOLLOWING COURSES:

- CHEM 1111 General Chemistry I (4 credits)
- CHEM 2211 Principles of Chemistry I (4 credits)

SELECT 1 OF THE FOLLOWING COURSES:

- CHEM 1112 General Chemistry II (4 credits)
- CHEM 2212 Principles of Chemistry II (4 credits)

SELECT 1 OF THE FOLLOWING COURSES:

- ECON 3040 Environmental Economics (3 credits)
- ENVR 3040 Environmental Economics (3 credits)

SELECT 1 OF THE FOLLOWING COURSES:

- SOC 3001 Social Statistics (3 credits)
- STAT 2610 Applied Statistics (4 credits)

**OUTDOOR EDUCATION EMPHASIS**

1. REQUIRED CORE
COMPLETE THE FOLLOWING COURSES:

- ENVR 3600 Environmental Justice and Sustainability (3 credits)
- HLTH 3600 Emergency Response (3 credits)
- PHED 2925 People and the Environment: (3 credits)

- PHED 4360 Adventure Programming (3 credits)

COMPLETE THE FOLLOWING COURSE:

- PHED 4970 Internship (1-12 credits)

2. REQUIRED ELECTIVES
SELECT 4 SEMESTER CREDITS FROM THE FOLLOWING COURSES:

- PHED 1120 Introduction to Sea Kayaking (1 credit)
- PHED 1180 Canoeing (1 credit)
- PHED 1200 Introduction To Rock Climbing (1 credit)
- PHED 1520 Downhill Skiing (1 credit)
- PHED 1554 Skills for Life: Cross Country Skiing (1 credit)

3. GUIDED ELECTIVES
SELECT 8-9 SEMESTER CREDITS FROM BIOL, ED, GEOG AND GEOL COURSES APPROVED BY CEESS ADVISOR.

**Suggested Semester Schedule for Environmental Studies major, B.S.**

The following is a list of Environmental Studies Major Courses arranged by year. This schedule is intended to help students plan their courses in an orderly fashion; however, these are only suggestions and this schedule is flexible.

Freshman

- BIOL 1211 Introductory Biology I (4 credits)
- BIOL 1212 Introductory Biology II (4 credits)
- MATH 1170 College Algebra (4 credits)
- MATH 1470 Precalculus (5 credits)
  or MATH 2471 Calculus I (5 credits)
- Liberal Education requirements

Sophomore

- BIOL 2610 General Ecology (3 credits)
- ENVR 2000 Introduction to Environmental Science (3 credits)
- Select one chemistry sequence:
  1. CHEM 1111 General Chemistry I (4 credits)
     CHEM 1112 General Chemistry II (4 credits)
  2. CHEM 2211 Principles of Chemistry I (4 credits)
     CHEM 2212 Principles of Chemistry II (4 credits)
- GEOL 1110 Physical Geology (4 credits)
- PHYS 1101 General Physics I (4 credits)
- SOC 3001 Social Statistics (3 credits)
  or STAT 2610 Applied Statistics (4 credits)
- Liberal Education requirements

Junior

- ENVR 3920 DGS: Seminar in Environmental Controversies (2 credits)
- ENVR 4210 Environmental Law and Policy (3 credits)
- POL 3230 Environmental Politics (3 credits)
- ECON 3040 Environmental Economics (3 credits)
  or ENVR 3040
- SOC 3050 Environmental Sociology (3 credits)
- Emphasis courses
- Liberal Education requirements

Senior

- ENVR 4920 Directed Group Study: Senior Seminar (1 credit)
- ENVR 4970 Internship (3 credits)
  or ENVR 4990 Thesis (3 credits)
- Complete Emphasis courses
- Complete Liberal Education requirements

## Environmental Studies, B.S. *major*
## Environmental Chemistry Emphasis

Required Credits: 84
Required GPA: 2.25

**I REQUIRED CORE COURSES**

Notes: Students who select the Environmental Management Emphasis should select ENVR 4970 Internship rather than ENVR 4990 Senior Thesis.

COMPLETE THE FOLLOWING COURSES:

- BIOL 1211 Introductory Biology I (4 credits)
- BIOL 1212 Introductory Biology II (4 credits)
- BIOL 2610 General Ecology (3 credits)
- ENVR 2000 Introduction to Environmental Science (3 credits)
- ENVR 4210 Environmental Law and Policy (3 credits)
- GEOL 1110 Physical Geology (4 credits)
- POL 3230 Environmental Politics (3 credits)
- SOC 3050 Environmental Sociology (3 credits)

COMPLETE THE FOLLOWING COURSE:

- ENVR 3920 DGS: Seminar in Environmental Controversies (2 credits)

COMPLETE THE FOLLOWING COURSE:
Enroll for 1 credit - two different terms

- ENVR 4920 Directed Group Study: Senior Seminar (1 credit)

SELECT 1 OF THE FOLLOWING COURSES:

- CHEM 1111 General Chemistry I (4 credits)
- CHEM 2211 Principles of Chemistry I (4 credits)

SELECT 1 OF THE FOLLOWING COURSES:

- CHEM 1112 General Chemistry II (4 credits)
- CHEM 2212 Principles of Chemistry II (4 credits)

SELECT 1 OF THE FOLLOWING COURSES:

- ECON 3040 Environmental Economics (3 credits)
- ENVR 3040 Environmental Economics (3 credits)

SELECT 1 OF THE FOLLOWING COURSES:

- ENVR 4970 Internship (3 credits)
- ENVR 4990 Thesis (3 credits)

SELECT 1 OF THE FOLLOWING COURSES:

- SOC 3001 Social Statistics (3 credits)
- STAT 2610 Applied Statistics (4 credits)

**ENVIRONMENTAL CHEMISTRY EMPHASIS**

COMPLETE THE FOLLOWING COURSES:

- CHEM 3311 Organic Chemistry I (3 credits)
- CHEM 3312 Organic Chemistry II (3 credits)
- CHEM 3371 Organic Chemistry Laboratory I (1 credit)
- CHEM 3372 Organic Chemistry Laboratory II (1 credit)
- CHEM 3507 Analytical Chemistry (3 credits)
- CHEM 3570 Analytical Chemistry Laboratory (1 credit)
- ENVR 4220 Sampling and Analysis (4 credits)
- MATH 2471 Calculus I (5 credits)
- PHYS 1101 General Physics I (4 credits)

SELECT 1 OF THE FOLLOWING COURSES:

- ENVR 4050 Geochemistry (3 credits)
- CHEM 4101 Environmental Chemistry (3 credits)
- ENVR 4101 Environmental Chemistry (3 credits)

COMPLETE THE FOLLOWING COURSE:

- ENVR 4102 Environmental Chemistry II (3 credits)

SELECT 5 SEMESTER CREDITS OF ELECTIVES APPROVED BY CEESS ADVISOR.

**Suggested Semester Schedule for Environmental Studies major, B.S.**

The following is a list of Environmental Studies Major Courses arranged by year. This schedule is intended to help students plan their courses in an orderly fashion; however, these are only suggestions and this schedule is flexible.

Freshman

- BIOL 1211 Introductory Biology I (4 credits)
- BIOL 1212 Introductory Biology II (4 credits)
- MATH 1170 College Algebra (4 credits)
- MATH 1470 Precalculus (5 credits)
  or MATH 2471 Calculus I (5 credits)
- Liberal Education requirements

Sophomore

- BIOL 2610 General Ecology (3 credits)
- ENVR 2000 Introduction to Environmental Science (3 credits)
- Select one chemistry sequence:
  1. CHEM 1111 General Chemistry I (4 credits)
     CHEM 1112 General Chemistry II (4 credits)
  2. CHEM 2211 Principles of Chemistry I (4 credits)
     CHEM 2212 Principles of Chemistry II (4 credits)
- GEOL 1110 Physical Geology (4 credits)
- PHYS 1101 General Physics I (4 credits)
- SOC 3001 Social Statistics (3 credits)
  or STAT 2610 Applied Statistics (4 credits)
- Liberal Education requirements

Junior

- ENVR 3920 DGS: Seminar in Environmental Controversies (2 credits)
- ENVR 4210 Environmental Law and Policy (3 credits)
- POL 3230 Environmental Politics (3 credits)
- ECON 3040 Environmental Economics (3 credits)
  or ENVR 3040 Environmental Economics (3 credits)
- SOC 3050 Environmental Sociology (3 credits)
- Emphasis courses
- Liberal Education requirements

Senior

- ENVR 4920 Directed Group Study: Senior Seminar (1 credit)
- ENVR 4970 Internship (3 credits)
  or ENVR 4990 Thesis (3 credits)
- Complete Emphasis courses
- Complete Liberal Education requirements

## Environmental Studies, B.S. *major*
## Environmental Engineering Science Emphasis

Required Credits: 88
Required GPA: 2.25

**I REQUIRED CORE COURSES**

Notes: Students who select the Environmental Management Emphasis should select ENVR 4970 Internship rather than ENVR 4990 Senior Thesis.

COMPLETE THE FOLLOWING COURSES:

- BIOL 1211 Introductory Biology I (4 credits)
- BIOL 1212 Introductory Biology II (4 credits)
- BIOL 2610 General Ecology (3 credits)
- ENVR 2000 Introduction to Environmental Science (3 credits)
- ENVR 4210 Environmental Law and Policy (3 credits)
- GEOL 1110 Physical Geology (4 credits)
- POL 3230 Environmental Politics (3 credits)
- SOC 3050 Environmental Sociology (3 credits)

COMPLETE THE FOLLOWING COURSE:

- ENVR 3920 DGS: Seminar in Environmental Controversies (2 credits)

COMPLETE THE FOLLOWING COURSE:
Enroll for 1 credit - two different terms

- ENVR 4920 Directed Group Study: Senior Seminar (1 credit)

SELECT 1 OF THE FOLLOWING COURSES:

- CHEM 1111 General Chemistry I (4 credits)
- CHEM 2211 Principles of Chemistry I (4 credits)

SELECT 1 OF THE FOLLOWING COURSES:

- CHEM 1112 General Chemistry II (4 credits)
- CHEM 2212 Principles of Chemistry II (4 credits)

SELECT 1 OF THE FOLLOWING COURSES:

- ECON 3040 Environmental Economics (3 credits)
- ENVR 3040 Environmental Economics (3 credits)

SELECT 1 OF THE FOLLOWING COURSES:

- ENVR 4970 Internship (3 credits)
- ENVR 4990 Thesis (3 credits)

SELECT 1 OF THE FOLLOWING COURSES:

- SOC 3001 Social Statistics (3 credits)
- STAT 2610 Applied Statistics (4 credits)

**ENVIRONMENTAL ENGINEERING SCIENCE EMPHASIS**

COMPLETE THE FOLLOWING COURSES:

- ENVR 4200 Wastewater Treatment (3 credits)
- ENVR 4230 Air Pollution Technology (4 credits)
- ENVR 4240 Waste Management (4 credits)
- MATH 2471 Calculus I (5 credits)
- MATH 2472 Calculus II (5 credits)
- PHYS 2101 Physics I (5 credits)
- PHYS 2102 Physics II (5 credits)
- PHYS 2210 Statics and Strength of Materials (3 credits)
- PHYS 2220 Dynamics (3 credits)
- PHYS 3230 Fluid Mechanics (3 credits)

**Suggested Semester Schedule for Environmental Studies major, B.S.**

The following is a list of Environmental Studies Major Courses arranged by year. This schedule is intended to help students plan their courses in an orderly fashion; however, these are only suggestions and this schedule is flexible.

Freshman

- BIOL 1211 Introductory Biology I (4 credits)
- BIOL 1212 Introductory Biology II (4 credits)
- MATH 1170 College Algebra (4 credits)
- MATH 1470 Precalculus (5 credits)
  or MATH 2471 Calculus I (5 credits)
- Liberal Education requirements

Sophomore

- BIOL 2610 General Ecology (3 credits)
- ENVR 2000 Introduction to Environmental Science (3 credits)
- Select one chemistry sequence:
  1. CHEM 1111 General Chemistry I (4 credits)
     CHEM 1112 General Chemistry II (4 credits)
  2. CHEM 2211 Principles of Chemistry I (4 credits)
     CHEM 2212 Principles of Chemistry II (4 credits)
- GEOL 1110 Physical Geology (4 credits)
- PHYS 1101 General Physics I (4 credits)
- SOC 3001 Social Statistics (3 credits)
  or STAT 2610 Applied Statistics (4 credits)
- Liberal Education requirements

Junior

- ENVR 3920 DGS: Seminar in Environmental Controversies (2 credits)
- ENVR 4210 Environmental Law and Policy (3 credits)
- POL 3230 Environmental Politics (3 credits)
- ECON 3040 Environmental Economics (3 credits)
  or ENVR 3040 Environmental Economics (3 credits)
- SOC 3050 Environmental Sociology (3 credits)
- Emphasis courses
- Liberal Education requirements

Senior

- ENVR 4920 Directed Group Study: Senior Seminar (1 credit)
- ENVR 4970 Internship (3 credits)
  or ENVR 4990 Thesis (3 credits)
- Complete Emphasis courses
- Complete Liberal Education requirements

## Environmental Studies, B.S. *major*
## Ecosystem Studies Emphasis

Required Credits: 84
Required GPA: 2.25

**I REQUIRED CORE COURSES**

Notes: Students who select the Environmental Management Emphasis should select ENVR 4970 Internship rather than ENVR 4990 Senior Thesis.

COMPLETE THE FOLLOWING COURSES:

- BIOL 1211 Introductory Biology I (4 credits)
- BIOL 1212 Introductory Biology II (4 credits)
- BIOL 2610 General Ecology (3 credits)
- ENVR 2000 Introduction to Environmental Science (3 credits)
- ENVR 4210 Environmental Law and Policy (3 credits)
- GEOL 1110 Physical Geology (4 credits)
- POL 3230 Environmental Politics (3 credits)
- SOC 3050 Environmental Sociology (3 credits)

COMPLETE THE FOLLOWING COURSE:

- ENVR 3920 DGS: Seminar in Environmental Controversies (2 credits)

COMPLETE THE FOLLOWING COURSE:
Enroll for 1 credit - two different terms

- ENVR 4920 Directed Group Study: Senior Seminar (1 credit)

SELECT 1 OF THE FOLLOWING COURSES:

- CHEM 1111 General Chemistry I (4 credits)
- CHEM 2211 Principles of Chemistry I (4 credits)

SELECT 1 OF THE FOLLOWING COURSES:

- CHEM 1112 General Chemistry II (4 credits)
- CHEM 2212 Principles of Chemistry II (4 credits)

SELECT 1 OF THE FOLLOWING COURSES:

- ECON 3040 Environmental Economics (3 credits)
- ENVR 3040 Environmental Economics (3 credits)

SELECT 1 OF THE FOLLOWING COURSES:

- ENVR 4970 Internship (3 credits)
- ENVR 4990 Thesis (3 credits)

SELECT 1 OF THE FOLLOWING COURSES:

- SOC 3001 Social Statistics (3 credits)
- STAT 2610 Applied Statistics (4 credits)

**ECOSYSTEM STUDIES EMPHASIS**

COMPLETE THE FOLLOWING COURSES:

- BIOL 3361 Limnology I (4 credits)
- ENVR 3600 Environmental Justice and Sustainability (3 credits)
- ENVR 4400 Environmental Microbiology (3 credits)
- ENVR 4500 Environmental Toxicology (4 credits)
- GEOG 3231 Introduction to Geographic Information Systems (3 credits)
- PHYS 1101 General Physics I (4 credits)

SELECT 1 OF THE FOLLOWING COURSES:

- BIOL 3630 Conservation Biology (3 credits)
- GEOG 3630 Conservation Biology (3 credits)

SELECT 1 OF THE FOLLOWING COURSES:

- BIOL 3840 Wetlands Ecology (3 credits)
- ENVR 3840 Wetlands Ecology (3 credits)

SELECT 9 SEMESTER CREDITS OF ELECTIVES APPROVED BY CEESS ADVISOR.

**Suggested SEmester Schedule for Environmental Studies major, B.S.**

The following is a list of Environmental Studies Major Courses arranged by year. This schedule is intended to help students plan their courses in an orderly fashion; however, these are only suggestions and this schedule is flexible.

Freshman

- BIOL 1211 Introductory Biology I (4 credits)
- BIOL 1212 Introductory Biology II (4 credits)
- MATH 1170 College Algebra (4 credits)
- MATH 1470 Precalculus (5 credits)
  or MATH 2471 Calculus I (5 credits)
- Liberal Education requirements

Sophomore

- BIOL 2610 General Ecology (3 credits)
- ENVR 2000 Introduction to Environmental Science (3 credits)
- Select one chemistry sequence:
  1. CHEM 1111 General Chemistry I (4 credits)
     CHEM 1112 General Chemistry II (4 credits)
  2. CHEM 2211 Principles of Chemistry I (4 credits)
     CHEM 2212 Principles of Chemistry II (4 credits)
- GEOL 1110 Physical Geology (4 credits)
- PHYS 1101 General Physics I (4 credits)
- SOC 3001 Social Statistics (3 credits)
  or STAT 2610 Applied Statistics (4 credits)
- Liberal Education requirements

Junior

- ENVR 3920 DGS: Seminar in Environmental Controversies (2 credits)
- ENVR 4210 Environmental Law and Policy (3 credits)
- POL 3230 Environmental Politics (3 credits)
- ECON 3040 Environmental Economics (3 credits)
  or ENVR 3040 Environmental Economics (3 credits)
- SOC 3050 Environmental Sociology (3 credits)
- Emphasis courses
- Liberal Education requirements

Senior

- ENVR 4920 Directed Group Study: Senior Seminar (1 credit)
- ENVR 4970 Internship (3 credits)
  or ENVR 4990 Thesis (3 credits)
- Complete Emphasis courses
- Complete Liberal Education requirements

## Environmental Studies *minor*

Required Credits: 22
Required GPA: 2.00

**I REQUIRED COURSES**

COMPLETE THE FOLLOWING COURSES:

- BIOL 1211 Introductory Biology I (4 credits)
- BIOL 1212 Introductory Biology II (4 credits)
- BIOL 2610 General Ecology (3 credits)
- ENVR 2000 Introduction to Environmental Science (3 credits)

COMPLETE THE FOLLOWING COURSE:

- ENVR 3920 DGS: Seminar in Environmental Controversies (2 credits)

COMPLETE THE FOLLOWING COURSE:
Enroll for 1 credit - two different terms

- ENVR 4920 Directed Group Study: Senior Seminar (1 credit)

**II REQUIRED ELECTIVES**

SELECT 4 SEMESTER CREDITS IN UPPER DIVISION COURSES IN ENVIRONMENTAL STUDIES

## Environmental Studies Courses

**ENVR 2000 Introduction to Environmental Science (3 credits)**
An introduction to environmental science emphasizing biological, physical-chemical and cross-cultural environmental social principles underlying major world environmental, political and economic issues; examination of the impacts of human activities and technology on global environmental and socio-economic stability; application of critical thinking and working with graphic skills and lab-like data analysis related to global environmental, biological, physical-chemical, cultural, and socio-economic topics. Liberal Education Goal Areas 3 & 10.

**ENVR 2150 Wilderness Ethics: Projects for Environmental Field Programs (1-3 credits)**
Major schools of thought on the meaning of wilderness, its importance to modern society, and implications for responsible citizenship. Notions of wilderness and wilderness ethics advanced by major authors, past and present. Wilderness policy in the United States and recommendations for revisions to the Wilderness Act. Relation of sustainability to wilderness protection and the benefits provided to society. Experiential learning by visiting key areas that meet certain criteria for wilderness and relation of these experiences to personal values, including ethical behavior in "wilderness" settings. Liberal Education Goal Area 9.

**ENVR 2925 People and the Environment - The Global Pollution Perspective (3 credits)**
This course is a section of the interdisciplinary environmental issues course, People and the Environment. The focus of this course is to explore the scientific aspects of global pollution, including causes, effects, and solutions. Liberal Education Goal Area 10.

**ENVR 3040 Environmental Economics (3 credits)**
Examines environmental problems as consequence of market's failure to accurately value environmental resources. Alternative private and public policies are examined in terms of their effectiveness in improving the efficiency and equity with which water, air, and other resources are allocated. Prerequisite: ECON 2000 or consent of instructor. (Also offered under ECON 3040.)

**ENVR 3300 Environmental Management and Safety (3 credits)**
Helps students pursuing environmental studies to develop environmental management skills required in both manufacturing and non-manufacturing businesses. Safe handling, transport, and storage of hazardous materials with respect to their physical and chemical nature, and application of regulatory requirements relevant to specific business and hazardous materials involved. Prerequisites: CHEM 1112 or CHEM 2212 or ENVR 2000 or GEOL 1110 or consent of instructor. May not be offered every year.

**ENVR 3600 Environmental Justice and Sustainability (3 credits)**
The ethical and moral dimensions of environmental choices. The legal, philosophical, political, and economic underpinnings of various theories of justice. A major focus is the inequitable distribution of environmental risks and the implications of policies that attempt to combat these risks. Prerequisite: ENVR 2000 or consent of instructor.

**ENVR 3840 Wetlands Ecology (3 credits)**
Survey course develops a basic understanding of the terminology, classification, ecology, values, and conservation of wetlands. Covers wetland systems from around the world, with emphasis on wetlands in North America. Prerequisites: BIOL 1211 and BIOL 1212.

**ENVR 3920 DGS: Seminar in Environmental Controversies (2 credits)**
When taken as Environmental Controversies Seminar, the following description applies: Faculty and student presentations followed by group discussion of classic and current problems, and governmental policies/regulations. Prerequisite: ENVR 2000 or consent of instructor.

**ENVR 4050 Geochemistry (3 credits)**
Study of processes in the lithosphere, hydrosphere, and atmosphere; cycling of the elements; weathering; microbe-mineral interactions; nanoparticles; microscopic imaging. Prerequisites: CHEM 1112 or CHEM 2212 or ENVR 2000 or GEOL 1110 or consent of instructor.

**ENVR 4101 Environmental Chemistry (3 credits)**
Intensive study of biogeochemical cycles of natural and man-made pollutants including transformations, transport, fate and persistence mechanisms. Environmental effects, long-term impacts, and methods of treatment/prevention are discussed. Prerequisites: CHEM 1112 or CHEM 2212 of consent of instructor.

**ENVR 4102 Environmental Chemistry II (3 credits)**
Study of processes affecting behavior and fate of anthroprogenic and natural compounds in the atmosphere, soils, and water. Colloidal and surface phenomena, nanoprocesses, redox reactions, speciation, solubility, and complexation. Prerequisite: ENVR/CHEM 4101; GEOL 1110; and ENVR 2000 or consent of instructor.

**ENVR 4200 Wastewater Treatment (3 credits)**
Introduction to the operation of the principal methods and treatment processes of municipal and industrial wastewaters, and for the disposal of treated effluent and sludges, and other solid materials. Integration of fundamental principles of science with different aspects of sanitary technology. Prerequisites: BIOL 1212, CHEM 1112 or CHEM 2212, MATH 1170, or consent of instructor. BIOL 1212 is not required for Chemistry majors.

**ENVR 4210 Environmental Law and Policy (3 credits)**
Overview of environmental laws, regulations, and policies. Prerequisite: Consent of instructor.

**ENVR 4220 Sampling and Analysis (4 credits)**
Methods of sampling and analysis of air, water, soil and other environmental compartments will be described in lecture and experienced in laboratory session. The focus is on regulations and prescribed protocols for environmental field and lab work. Prerequisites: CHEM 1112 or CHEM 2212 or ENVR 2000 or GEOL 1110 or consent of instructor.

**ENVR 4230 Air Pollution Technology (4 credits)**
In depth overview of sources and types of air pollution, major environmental impacts, regulations, and technologies for control and clean up. Prerequisites: CHEM 1112 or CHEM 2212 or ENVR 2000 or GEOL 1110 or consent of instructor.

**ENVR 4240 Waste Management (4 credits)**
An overview of the solid and hazardous waste situation at the local, state, national and international levels. The focus on management will include a systems approach to prevention, and remediation of wastes. Prerequisites: CHEM 1112 or CHEM 2212 or ENVR 2000 or GEOL 1110 or consent of instructor.

**ENVR 4260 Risk Assessment and Auditing (3 credits)**
Overview of human/environmental risk assessment methods and environmental auditing techniques, with a focus on regulatory compliance and case studies. Prerequisites: CHEM 1112 or CHEM 2212 or ENVR 2000 or GEOL 1110 or consent of instructor.

**ENVR 4400 Environmental Microbiology (3 credits)**
Fundamental aspects of microbiology as related to land production, environmental pollution and water quality control processes. The role of major groups of microbes as pollutants, as purifying agents, and as agents of biochemical changes, and ecological functions and importance of each group in the environment. Prerequisites: BIOL 1110 or BIOL 1120 or CHEM 1112 or CHEM 2212 or consent of instructor.

**ENVR 4500 Environmental Toxicology (4 credits)**
An overview of major environmental pollutants, their transport, fate and toxicology. Pollutant effects studied from practical and theoretical focus on stress at various levels of biological organization. Prerequisites: BIOL 1212, BIOL 2610, and CHEM 1112 or CHEM 2212, or consent of instructor.

**ENVR 4920 Directed Group Study: Senior Seminar (1 credit)**
A series of 2 seminars (1 credit each) will explore 1) the environmental job market and graduate school opportunities (Fall), and 2) current environmental issues/literature (Spring). Prerequisites: Senior status; Environmental Studies major, and ENVR 3920.

**ENVR 4970 Internship (3 credits)**
Graded Satisfactory/Unsatisfactory only. Student internships may be either full-time or part-time in a public or private agency appropriate to the degree objective. Internships consist of closely supervised periods of service that are arranged in advance of the course registration. Students should consult their advisor concerning prerequisites.

**ENVR 4990 Thesis (3 credits)**
A thesis written by the student that reports extensive original research carried out by the student and demonstrates appropriate methodology and scholarship.

## All-University Courses

The course numbers listed below, not always included in the semester class schedule, may be registered for by consent of the advisor, instructor, or department chair, or may be assigned by the department when warranted. Individual registration requires previous arrangement by the student and the completion of any required form or planning outline as well as any prerequisites.

1910, 2910, 3910, 4910 DIRECTED INDEPENDENT STUDY
1920, 2920, 3920, 4920 DIRECTED GROUP STUDY
1930, 2930, 3930, 4930 EXPERIMENTAL COURSE
1940, 2940, 3940, 4940 IN-SERVICE COURSE
1950, 2950, 3950, 4950 WORKSHOP, INSTITUTE, TOUR

1960, 2960, 3960, 4960 SPECIAL PURPOSE INSTRUCTION
1970, 2970, 3970, 4970 INTERNSHIP
1980, 2980, 3980, 4980 RESEARCH
1990, 2990, 3990, 4990 THESIS

# Exercise Science

The vision of the Department of Human Performance, Sport, and Health is "preparing and empowering future professionals to promote physical activity, health, and sport."

The mission of the Department of Human Performance, Sport, and Health is "to provide students with opportunities to excel through purposeful experiences resulting in skills, including leadership, communication, use of technology, and appreciation of individual differences. Through our programs, students develop an appreciation of the contributions of physical activity, wellness, and sport to society."

The Exercise Science program prepares students for graduate work in exercise science–related areas, as well as in areas such as physical therapy, occupational therapy, medicine, chiropractic, and other allied health fields. Students entering the job market with an undergraduate degree in exercise science generally work with corporate and community fitness programs, health clubs, and similar fitness-related industries. The program may also be chosen by students who are interested in coaching but do not wish to teach in public elementary or secondary schools.

The Department of Human Performance, Sport, and Health offers minors and a coaching specialist program that provide students with the skills and expertise to work in health clubs, coach teams, or teach special needs students. Also, in addition to offering a variety of activities classes that enhance students' liberal education, the department works with Campus Recreation and Athletics to offer a broad range of learning experiences.

**Programs**

- Exercise Science, B.S. (Medical Fitness Emphasis)*major*
- Exercise Science, B.S. (Fitness Leadership and Promotion Emphasis)*major*
- Human Performance Minor *minor*

**Career Directions**

Aquatic Specialist
Athletic Coaching
Industrial Fitness
Personal Trainer
Strength and Conditioning Specialist
Also: Graduate Study and Professional Programs

**Preparation**

Recommended High School Courses

Biology
Chemistry
Coaching
Exercise Science
Health
Life Sciences
Physical Education
Sports
Wellness

## Exercise Science, B.S. *major*
## Medical Fitness Emphasis

Required Credits: 65
Required GPA: 2.25

**I REQUIRED COURSES**

COMPLETE THE FOLLOWING COURSES:

- BIOL 1211 Introductory Biology I (4 credits)
- BIOL 2110 Human Anatomy and Physiology (5 credits)
- HLTH 2100 First Aid and CPR/AED (1 credit)
- HLTH 3300 Nutrition (3 credits)
- PHED 1240 Skills for Life: Techniques of Neuromuscular Relaxation (1 credit)
- PHED 2100 Foundations of Physical Education, Exercise Science, and Sport (3 credits)
- PHED 3100 Motor Development (2 credits)
- PHED 3110 Motor Learning (2 credits)
- PHED 3120 Psychology of Sport (2 credits)
- PHED 3190 Athletic Training (2 credits)
- PHED 3200 Introduction to Sport Biomechanics (3 credits)
- PHED 3300 Physiology of Exercise and Nutrition (3 credits)
- PHED 4160 Advanced Fitness Assessment & Prescription-Aerobic (3 credits)
- PHED 4170 Advanced Principles for Strength and Speed Training Exercise (3 credits)
- PHED 4309 Legal Aspects of Sport, Health, and Fitness (3 credits)

- PHED 4920 DGS: (1 credit)

SELECT 1 COURSE:

- CHEM 1111 General Chemistry I (4 credits)
- CHEM 2211 Principles of Chemistry I (4 credits)

SELECT 1 COURSE:

- PHYS 1101 General Physics I (4 credits)
- PHYS 2101 Physics I (5 credits)

**II REQUIRED EMPHASIS**

A. Medical Fitness Emphasis

- BIOL 1300 Medical Terminology (2 credits)
- HLTH 3710 Disease Prevention and Epidemiology (3 credits)
- PSY 3401 Basic Statistics for Research (4 credits)
  *or* STAT 3660 Statistics for the Health Sciences (3 credits)

**III EMPHASIS ELECTIVES**

SELECT 3 COURSES (7-15 CREDITS) FROM THE FOLLOWING WITH
CONSULTATION WITH YOUR ADVISOR.

NOTE: HLTH 3710 may not be used as an elective with the Medical Fitness emphasis.

- BIOL 1212 Introductory Biology II (4 credits)
- CHEM 1112 General Chemistry II (4 credits)
  *or* CHEM 2212 Principles of Chemistry II (4 credits)
- ENGL 2150 Technical Writing (3 credits)
- HLTH 3500 Community Health (3 credits)
- HLTH 3710 Disease Prevention and Epidemiology (3 credits)
- PHYS 1102 General Physics II (4 credits)
  *or* PHYS 2102 Physics II (5 credits)
- PSY 1100 Introductory Psychology (4 credits)
- PSY 2217 Abnormal Psychology (4 credits)
- PSY 3237 Lifespan Development (4 credits)
- SOWK 3830 Gerontology: Social Work Perspectives (2 credits)
- NRSG 3000 OR HIGHER (2-6 CREDITS)

**IV REQUIRED PRACTICAL EXPERIENCE**

COMPLETE THE FOLLOWING COURSE, UP TO 6 CREDITS:

- PHED 4970 Internship:Exercise Science

**SUGGESTED SEMESTER SCHEDULE FOR EXERCISE SCIENCE MAJOR, B.S.**

Students are encouraged to take the required Exercise Science, B.S. courses in approximate numerical order. This schedule is intended to help students plan their courses in an orderly fashion; however, these are only suggestions. Students are encouraged to consult the course descriptions for prerequisites.
The following Liberal Education courses are recommended for students majoring in Exercise Science: PSY 1100 Introductory Psychology, SOC 1104 Introduction to Sociology, and SPCM 1090 Interpersonal Communication (or SPCM 1100 Public Speaking).

Freshman
- BIOL 1211 Introductory Biology I (4 credits)
- CHEM 1111 General Chemistry I (4 credits)
  *or* CHEM 2211 Principles of Chemistry I (4 credits)
- PHED 2100 Foundations of Physical Education, Exercise Science, and Sport (3 credits)
- PSY 1100 Introductory Psychology (4 credits)
- SOC 1104 Society and Social Issues (3 credits)
- SPCM 1090 Interpersonal Communication (3 credits)
  *or* SPCM 1100 Public Speaking (3 credits)
- Liberal Education requirements

Sophomore
- BIOL 2110 Human Anatomy and Physiology (5 credits)
- HLTH 2100 First Aid and CPR/AED (1 credit)
- PHED 1240 Skills for Life: Techniques of Neuromuscular Relaxation (1 credit)
- PHED 3100 Motor Development (2 credits)
- PHED 3110 Motor Learning (2 credits)
- PHED 3190 Athletic Training (2 credits)
- PHYS 1101 General Physics I (4 credits)
  *or* PHYS 2101 Physics I (5 credits)
- Liberal Education requirements

Junior
- HLTH 3300 Nutrition (3 credits)
- PHED 3120 Psychology of Sport (2 credits)
- PHED 3200 Introduction to Sport Biomechanics (3 credits)
- PHED 3300 Physiology of Exercise and Nutrition (3 credits)
- PHED 4160 Advanced Fitness Assessment & Prescription-Aerobic (3 credits)
- PHED 4170 Advanced Principles for Strength and Speed Training Exercise (3 credits)
- Exercise Science Courses in Emphasis
- Exercise Science Electives

Senior
- PHED 4309 Legal Aspects of Sport, Health, and Fitness (3 credits)
- PHED 4920 DGS: (1 credit)
- PHED 4970 Internship (1-12 credits)
- Exercise Science Courses in Emphasis
- Exercise Science Electives

## Exercise Science, B.S. *major*
## Fitness Leadership and Promotion Emphasis

Required Credits: 67
Required GPA: 2.25

**I REQUIRED COURSES**

COMPLETE THE FOLLOWING COURSES:

- BIOL 1211 Introductory Biology I (4 credits)
- BIOL 2110 Human Anatomy and Physiology (5 credits)
- HLTH 2100 First Aid and CPR/AED (1 credit)
- HLTH 3300 Nutrition (3 credits)
- PHED 1240 Skills for Life: Techniques of Neuromuscular Relaxation (1 credit)
- PHED 2100 Foundations of Physical Education, Exercise Science, and Sport (3 credits)
- PHED 3100 Motor Development (2 credits)
- PHED 3110 Motor Learning (2 credits)
- PHED 3120 Psychology of Sport (2 credits)
- PHED 3190 Athletic Training (2 credits)
- PHED 3200 Introduction to Sport Biomechanics (3 credits)
- PHED 3300 Physiology of Exercise and Nutrition (3 credits)
- PHED 4160 Advanced Fitness Assessment & Prescription-Aerobic (3 credits)
- PHED 4170 Advanced Principles for Strength and Speed Training Exercise (3 credits)
- PHED 4309 Legal Aspects of Sport, Health, and Fitness (3 credits)
- PHED 4920 DGS: (1 credit)

SELECT 1 COURSE:

- CHEM 1111 General Chemistry I (4 credits)
- CHEM 2211 Principles of Chemistry I (4 credits)

SELECT 1 COURSE:

- PHYS 1101 General Physics I (4 credits)
- PHYS 2101 Physics I (5 credits)

**II REQUIRED EMPHASIS**

Fitness Leadership and Promotion Emphasis

- BUAD 3361 Marketing (3 credits)
  *or* PHED 3600 Sport Marketing (3 credits)
- HLTH 3400 Health and Drugs in Society (2 credits)
- HLTH 4410 Health Programming (3 credits)
- PHED 3449 Socio-Culture and Ethical Issues in Sport (3 credits)

SELECT 1 COURSE:

- PHED 4409 Sport Business Management (3 credits)
- PHED 3509 Sport Event Management (2 credits)
- PHED 3519 Sport Facility Management (2 credits)

**III EMPHASIS ELECTIVES**

SELECT 2 COURSES (4-11 CREDITS) FROM THE FOLLOWING WITH CONSULTATION WITH YOUR ADVISOR.

- BIOL 1212 Introductory Biology II (4 credits)
- CHEM 1112 General Chemistry II (4 credits)
  *or* CHEM 2212 Principles of Chemistry II (4 credits)
- ENGL 2150 Technical Writing (3 credits)
- HLTH 3500 Community Health (3 credits)
- HLTH 3710 Disease Prevention and Epidemiology (3 credits)
- PHYS 1102 General Physics II (4 credits)
  *or* PHYS 2102 Physics II (5 credits)
- PSY 1100 Introductory Psychology (4 credits)
- PSY 2217 Abnormal Psychology (4 credits)
- PSY 3237 Lifespan Development (4 credits)
- SOWK 3830 Gerontology: Social Work Perspectives (2 credits)
- NRSG 3000 OR HIGHER (2-6 CREDITS)

**IV REQUIRED PRACTICAL EXPERIENCE**

COMPLETE THE FOLLOWING COURSE, UP TO 6 CREDITS:

- PHED 4970 Internship:Exercise Science

**SUGGESTED SEMESTER SCHEDULE FOR EXERCISE SCIENCE MAJOR, B.S.**

Students are encouraged to take the required Exercise Science, B.S. courses in approximate numerical order. This schedule is intended to help students plan their courses in an orderly fashion; however, these are only suggestions. Students are encouraged to consult the course descriptions for prerequisites.
The following Liberal Education courses are recommended for students majoring in Exercise Science: PSY 1100 Introductory Psychology, SOC 1104 Introduction to Sociology, and SPCM 1090 Interpersonal Communication (or SPCM 1100 Public Speaking).
Freshman

- BIOL 1211 Introductory Biology I (4 credits)
- CHEM 1111 General Chemistry I (4 credits)
  *or* CHEM 2211 Principles of Chemistry I (4 credits)
- PHED 2100 Foundations of Physical Education, Exercise Science, and Sport (3 credits)
- PSY 1100 Introductory Psychology (4 credits)
- SOC 1104 Society and Social Issues (3 credits)
- SPCM 1090 Interpersonal Communication (3 credits)
  *or* SPCM 1100 Public Speaking (3 credits)
- Liberal Education requirements

Sophomore

- BIOL 2110 Human Anatomy and Physiology (5 credits)
- HLTH 2100 First Aid and CPR/AED (1 credit)
- PHED 1240 Skills for Life: Techniques of Neuromuscular Relaxation (1 credit)
- PHED 3100 Motor Development (2 credits)
- PHED 3110 Motor Learning (2 credits)
- PHED 3190 Athletic Training (2 credits)
- PHYS 1101 General Physics I (4 credits)
  *or* PHYS 2101 Physics I (5 credits)
- Liberal Education requirements

Junior

- HLTH 3300 Nutrition (3 credits)
- PHED 3120 Psychology of Sport (2 credits)
- PHED 3200 Introduction to Sport Biomechanics (3 credits)
- PHED 3300 Physiology of Exercise and Nutrition (3 credits)
- PHED 4160 Advanced Fitness Assessment & Prescription-Aerobic (3 credits)
- PHED 4170 Advanced Principles for Strength and Speed Training Exercise (3 credits)
- Exercise Science Courses in Emphasis
- Exercise Science Electives

Senior

- PHED 4309 Legal Aspects of Sport, Health, and Fitness (3 credits)
- PHED 4920 DGS: (1 credit)
- PHED 4970 Internship (1-12 credits)
- Exercise Science Courses in Emphasis
- Exercise Science Electives

## Human Performance Minor *minor*

Required Credits: 20
Required GPA: 2.00

**I REQUIRED COURSES**

COMPLETE THE FOLLOWING COURSES:

- BIOL 1110 Human Biology (4 credits)
  *or* BIOL 1211 Introductory Biology I (4 credits)
- HLTH 2100 First Aid and CPR/AED (1 credit)
- PHED 2100 Foundations of Physical Education, Exercise Science, and Sport (3 credits)
- PHED 3300 Physiology of Exercise and Nutrition (3 credits)
- PHED 4309 Legal Aspects of Sport, Health, and Fitness (3 credits)

COMPLETE THE FOLLOWING COURSE:

- PHED 4970 Internship (1-12 credits)

**II REQUIRED OPTION**

Select one of the following options (Physical Education and Exercise Science majors may not double count courses in either option.

**II REQUIRED OPTION**

Option A. Pedagogy

SELECT 3 OF THE FOLLOWING COURSES:

- PHED 2640 Water Safety Instructor (3 credits)
- PHED 3100 Motor Development (2 credits)
  *or* PHED 3110 Motor Learning (2 credits)
- PHED 3504 Teaching Rhythms and Dance (2 credits)
- PHED 3505 Teaching Elementary Physical Education (2 credits)
- PHED 3604 Teaching Team Sports (2 credits)
- PHED 3605 Teaching Individual Sports (2 credits)
- PHED 3607 Teaching Fitness (2 credits)

Option B. Fitness and Training

SELECT 3 OF THE FOLLOWING COURSES:

- HLTH 3300 Nutrition (3 credits)
- PHED 1240 Skills for Life: Techniques of Neuromuscular Relaxation (1 credit)
- PHED 3100 Motor Development (2 credits)
- PHED 3200 Introduction to Sport Biomechanics (3 credits)
- PHED 3504 Teaching Rhythms and Dance (2 credits)
- PHED 4160 Advanced Fitness Assessment & Prescription-Aerobic (3 credits)
- PHED 4170 Advanced Principles for Strength and Speed Training Exercise (3 credits)

## Health Courses

**HLTH 2100 First Aid and CPR/AED (1 credit)**
An introduction to emergency action principles, first aid, and CPR/AED (automated external defibrillation) for lay responders. American Red Cross Adult, Child and Infant CPR (1-year), Adult and Child AED (1-year), and First Aid (3-year) certificates may be earned. Recommended as a basic course for professional educators.

**HLTH 2200 First Aid and CPR/AED Instructor (1 credit)**
Designed to prepare First Aid and CPR/AED students to become instructors for Lay Responder First Aid and CPR/AED. American Red Cross Instructors Certificate may be earned. Recommended as an advanced course for professional educators. Law enforcement personnel are also encouraged to consider the course. Prerequisite: HLTH 2100 or equivalent.

**HLTH 2800 Multicultural Health in America (2 credits)**
Examines the health issues and problems faced by ethnic minority populations in America, specifically by African Americans, American Indians, Hispanic Americans, and Americans of Asian and Pacific Island descent. Since a disproportionate number of health problems confront these minority groups, this course (a) examines specific health problems, (b) evaluates what is known and unknown about these specific problems, and (c) re-evaluates the current health care system in America to resolve these special problems in health care delivery. Liberal Education Goal Area 7.

**HLTH 2925 People and the Environment: A Health Perspective (3 credits)**
This course builds upon the principles discussed in the large group, focusing greater attention on health issues related to the environment, including the food supply, water quality, air quality, and other environmental health risks. These are discussed in the context of common diseases such as cancers, asthma, communicable diseases, and other health problems associated with the environment. Liberal Education Goal Area 10.

**HLTH 3150 Theoretical and Ethical Foundations of Health (3 credits)**
Provides entry level health education and community health students with the theoretical and ethical foundations of health. Also examines health's history, philosophy, settings, literature, and credentialing.

**HLTH 3200 Personal and Consumer Health (3 credits)**
A comprehensive study of personal health identifying ill-advised health behaviors and recommending strategies for positive behavioral change. From an opportunity cost perspective, personal health care options, products and services in the marketplace will be examined. Opportunities to network with local, state and federal consumer health agencies will be provided. Prerequisite or Co-requisite: For Community Health and Health Education majors and Health Promotion and Education minors: HLTH 3150; Non-majors/minor may select this class with consent of instructor.

**HLTH 3300 Nutrition (3 credits)**
Fundamentals of food utilization in the body and diet planning including discussion of the relationship between dietary habits and disease. Also included are discussions of current trends in nutrition, dietary changes for special conditions such as pregnancy, infancy, teenagers, aging, athletes, and cultural differences in dietary practices.

**HLTH 3400 Health and Drugs in Society (2 credits)**
A study of chemical use and abuse as related to personal and community health. Various drugs and drug-taking behaviors will be defined and discussed. Historical, cultural, educational, and legal perspectives will be examined. Multi-faceted prevention and rehabilitation strategies promoting wellness will be discussed.

**HLTH 3500 Community Health (3 credits)**
Comprehensive study of the community health challenges confronting the citizenry of the United States of America. Examines the roles of federal, state, and local governments, as well as private agencies, in individual and aggregate health care. Provides opportunities for community health networking. Prerequisites: For health majors/minors: HLTH 3150 and HLTH 3200; For non-majors/minors: Consent of instructor.

**HLTH 3600 Emergency Response (3 credits)**
Designed to provide advanced students the knowledge, skills and training to administer initial first aid in emergencies. American Red Cross advanced certificate may be earned. Ideal course for law enforcement personnel, athletic trainers, and juvenile officers. Prerequisite: HLTH 2100 or equivalent.

**HLTH 3710 Disease Prevention and Epidemiology (3 credits)**
An introduction to disease prevention, pathophysiology, and treatment of the most common communicable and chronic diseases in human populations. Focuses on the history and principles of disease occurrence in the context of environment and lifestyle choice. Students specifically examine risk factor management and the epidemiological data supporting the influence of physical activity in chronic disease prevention and management. Additionally, learners gain an introductory knowledge of epidemiology and biostatistics enabling them to successfully critique the scientific and educational literature. Prerequisites: For Community Health and Health Education majors: BIOL 1110, HLTH 3150, HLTH 3200, and HLTH 3500; For non-majors and the Health Promotion and Education minor: Consent of instructor.

**HLTH 3970 Internship: Practicum in Health (1-3 credits)**
When taken as Practicum in Health the following description applies: Community health majors will gain a 30-90 hour experience in a local health facility in preparation for the application of previous course work. Prerequisites: HLTH 3150 and HLTH 3200.

**HLTH 4100 Teaching Elementary School Health (2 credits)**
An integrated approach to the organization, content, goals, objectives, curriculum, methods and techniques of teaching health at the elementary level. Coordinating services and establishing collaboration will be incorporated. Elementary school state and national guidelines and mandates will be discussed. Teaching opportunities will be provided. Prerequisite: entrance into the teacher education program.

**HLTH 4206 Secondary School Health (2 credits)**
An integrated approach to the organization, content, goals, objectives, curriculum, methods, and techniques of teaching health at the secondary school level. Incorporates coordinating services and establishing collaboration. Secondary school state and national guidelines and mandates are discussed. Prerequisite: Entrance into the teacher education program or consent of instructor.

**HLTH 4410 Health Programming (3 credits)**
A comprehensive study of the process of identifying health problems, establishing health programming, and promoting, implementing, and evaluating the program. Also examines vision and mission statements, along with goals, objectives, timetables, and interpretation of results. This course parallels CHES criteria and utilizes a local community health organization to integrate student involvement. Prerequisites: For health majors/minors: HLTH 3150, HLTH 3200, HLTH 3500, HLTH 3710; For non-majors/minors: Consent of instructor.

**HLTH 4920 Directed Group Study: Health Seminar (1 credit)**
When taken as Health Seminar the following description applies: Intended as a capstone course to prepare the health major for employment, internship/job procurement, or continuing education in a graduate program. This course integrates discussion of strategies for professional development, as well as providing quality written composition on employment/graduate program goals and objectives. Prerequisite: Senior status or consent of instructor.

**HLTH 4970 Internship (1-12 credits)**
When taken for the Community Health major the following description applies: Students will gain field experience in a health related facility relevant to specific career goals. Opportunities will exist for the student to apply the different concepts and theories from course work directly in the work setting through observation, planning, decision-making, committee participation, leadership, operation management, and individual and group projects. Required: A minimum of 30 practicum hours per credit. Prerequisite: completion of all health course work and degree requirements. When taken as the Secondary Health Teaching Practicum, the following description applies: A 30-hour practicum in which students have the opportunity to teach health lessons, assist health teachers deliver health instruction, observe health teachers deliver health instruction, read to students, listen to students read, tutor students, and perform other duties as required by the BOT Standards and requested by the health teacher. Prerequisite: Entrance into the teacher education program or consent of instructor.

### All-University Courses

The course numbers listed below, not always included in the semester class schedule, may be registered for by consent of the advisor, instructor, or department chair, or may be assigned by the department when warranted. Individual registration requires previous arrangement by the student and the completion of any required form or planning outline as well as any prerequisites.

1910, 2910, 3910, 4910 DIRECTED INDEPENDENT STUDY
1920, 2920, 3920, 4920 DIRECTED GROUP STUDY
1930, 2930, 3930, 4930 EXPERIMENTAL COURSE
1940, 2940, 3940, 4940 IN-SERVICE COURSE
1950, 2950, 3950, 4950 WORKSHOP, INSTITUTE, TOUR
1960, 2960, 3960, 4960 SPECIAL PURPOSE INSTRUCTION
1970, 2970, 3970, 4970 INTERNSHIP
1980, 2980, 3980, 4980 RESEARCH
1990, 2990, 3990, 4990 THESIS

## Physical Education Courses

**PHED 1114 Skills For Life: Beginning Swimming (1 credit)**
An activity course for non-swimmers. Emphasis will be on personal adjustment to the water, basic strokes, and fundamentals of water safety. Liberal Education Goal Area 11.

**PHED 1115 Intermediate Swimming (1 credit)**
An activity course for swimmers who have the ability to jump into deep water, swim a front stroke 25 yards, and swim on the back 25 yards. Emphasis will be on five basic strokes, elementary diving, and related aquatic skills. Course may lead to American Red Cross Learn to Swim Certification Level 4 or 5. May not be offered every year.

**PHED 1116 Advanced Swimming (1 credit)**
An activity course for swimmers who can swim in satisfactory form 25 yards of each of the five basic strokes (back crawl, breaststroke, front crawl, elementary backstroke, sidestroke). Emphasis will be on developing and refining thirteen strokes, diving and other advanced aquatic skills. Course leads to American Red Cross Learn to Swim Certification Level 6 - Fitness Swimmer. This course is preparatory for the Water Safety Instructor course.

**PHED 1120 Introduction to Sea Kayaking (1 credit)**
An activity course that introduces the basics of kayak history, design, skills, and equipment. Taught through lecture, demonstration, and both on- and off-the-water skills practice.

**PHED 1139 Beginning Scuba Diving (1 credit)**
Upon completion of this course, students will understand and be able to demonstrate the safe scuba diving practices of the Professional Association of Dive Instructors (PADI) curriculum. Focuses on classroom knowledge development and confined-water skill development. Equipment and supplies are provided. This course is phase 1 of the PADI certification course. Students wishing to complete the certification as an Open Water Diver will need to take additional instruction. Liberal Education Goal Area 11.

**PHED 1180 Canoeing (1 credit)**
An activity course that introduces the fundamental skills of canoeing. Emphasis is on safety and on tandem and solo paddling techniques. Prerequisite: swimming test or consent of instructor. Liberal Education Goal Area 11.

**PHED 1190 Skills for Life: Sailing (1 credit)**
An activity course that introduces the fundamental skills of sailing. Development of skills and knowledge of safety, nomenclature, designs, rigging, handling, maintaining, and racing for sailboats. Prerequisite: swimming test or consent of instructor. Liberal Education Goal Area 11.

**PHED 1200 Introduction To Rock Climbing (1 credit)**
Introduction to the basics of Top Rope Rock Climbing and Rappelling through practice at the BSU Climbing Wall and/or other sites. Also includes climbing communication, "leave no trace" climbing techniques, techniques for setting anchors, and discussion of environmental values. Liberal Education Goal Area 11.

**PHED 1230 Yoga (1 credit)**
This course introduces students to basic yoga techniques and allows practice and development of the physical skills needed to perform approximately 40 basic exercises and postures. Liberal Education Goal Area 11.

**PHED 1240 Skills for Life: Techniques of Neuromuscular Relaxation (1 credit)**
An introduction to skill development in Jacobson's techniques to improve awareness of muscular tension and procedures for enhanced neuromuscular relaxation. Origins of stress and the body's responses to stress and stress management techniques will be included. Liberal Education Goal Area 11.

**PHED 1260 Skills for Life: Cycling (1 credit)**
Introduction to and practice in bicycling either off-road or road riding. Basic maintenance skills such as adjusting derailleurs, brakes and changing tires will be presented. Information on cycling for fitness, racing and bicycle touring will be presented. Liberal Education Goal Area 11.

**PHED 1300 Skills for Life: Weight Training (1 credit)**
An activity course that consists of an individualized or group weight program dealing with the fundamentals and practice of resistance exercise techniques for the development of the human body. Liberal Education Goal Area 11.

**PHED 1380 Skills for Life: Self Defense (1 credit)**
An activity course that examines and applies preventative and precautionary measures, assault awareness information, and most commonly needed personal self-defense skills and techniques. Liberal Education Goal Area 11.

**PHED 1430 Skills for Life: Archery (1 credit)**
An activity course that examines and applies the fundamentals and skills of archery. Selection and care of equipment, instruction and practice of shooting skills and scoring in target archery will be included. Liberal Education Goal Area 11.

**PHED 1454 Skills for Life: Golf (1 credit)**
An activity course that examines and applies the fundamentals and skills of golf. Selection and care of equipment, history and rules of the game, safety, etiquette, instruction and practice will be included. Liberal Education Goal Area 11.

**PHED 1474 Skills for Life: Bowling (1 credit)**
An activity course that examines and applies the fundamentals and skills of bowling. Students will demonstrate a knowledge of bowling history, scoring, handicapping and skills in bowling and etiquette. Liberal Education Goal Area 11.

**PHED 1490 Skills for Life: Badminton (1 credit)**
An activity course that examines and applies the fundamentals and skills of badminton. Students will demonstrate a knowledge of badminton history, scoring, and rules and regulations in singles and doubles play. Racket grips, strokes, footwork and tactics will be discussed and practiced. Liberal Education Goal Area 11.

**PHED 1500 Skills for Life: Ice Skating (1 credit)**
An activity course that examines and applies the fundamentals and skills of ice skating. Forward and backward stroking, crossovers and stops will be part of the evaluation. Liberal Education Goal Area 11.

**PHED 1520 Downhill Skiing (1 credit)**
An activity course that introduces the basic skills of beginning downhill skiing. Technique and skill development in traversing, turning, speed control and stopping will be included. The language of ski safety will also be discussed. (May not be offered every year.)

**PHED 1530 Snowboarding (1 credit)**
An activity course that introduces the basic skills of snowboarding, including toe turns, heel turns, carving, skating, stopping, and various forms of "riding." Includes an overview of snowboard equipment and how to select appropriate equipment. Liberal Education Goal Area 11.

**PHED 1540 Skills for Life: Curling (1 credit)**
An activity course that introduces the skills of curling, including techniques of throwing rocks and sweeping as well as strategies, rules, and scoring. (May not be offered every year) Liberal Education Goal Area 11.

**PHED 1554 Skills for Life: Cross Country Skiing (1 credit)**
An activity course that introduces the basic skills of cross country skiing including downhill turns and stopping. The student may choose to learn either skate skiing skills or the traditional skills of diagonal stride skiing. Some trail skiing will be included. Liberal Education Goal Area 11.

**PHED 1574 Skills for Life: Tennis (1 credit)**
An activity course that introduces the basic skills of tennis including techniques of basic grips, strokes and footwork. Entry level strategies for singles and doubles, history and rules of the game, etiquette, and scoring will be taught. Liberal Education Goal Area 11.

**PHED 1604 Skills for Life: Social Dance I (1 credit)**
This beginner-level activity course examines and applies the fundamentals and skills of contemporary, popular, and club style partner dances not typically included in a classic ballroom syllabus. Liberal Education Goal Area 11.

**PHED 1605 Social Dance II (1 credit)**
This intermediate- to advanced-level activity course examines and applies the fundamentals and skills of contemporary, popular, and club style partner dances not typically included in a classic ballroom syllabus. Prerequisite: PHED 1604 or consent of instructor. (Might not be offered every year.)

**PHED 1606 Skills for Life: American Style Ballroom Dance I (1 credit)**
An activity course that examines and applies the fundamentals and skills of classic ballroom dance. The steps taught are from the Dance Vision International Dance Association (DVIDA) American Bronze syllabus. Liberal Education Goal Area(s): 11.

**PHED 1607 Skills for Life: American Style Ballroom Dance II (1 credit)**
An activity course that examines and applies the fundamentals and skills of classic ballroom dance at an intermediate to advanced level. The steps taught are from the Dance Vision International Dance Association (DVIDA) American Bronze syllabus. Prerequisite: PHED 1606 or consent of instructor.

**PHED 1608 Skills for Life: International Style Ballroom Dance (1 credit)**
An activity course that examines and applies the fundamentals and skills of classic international style ballroom dance. The steps taught are from the Dance Vision International Dance Association (DVIDA) International Bronze syllabus. Liberal Education Goal Area 11.

**PHED 1764 Skills for Life: Basketball (1 credit)**
An activity course that examines and applies the fundamentals and skills of basketball. History and rules of the game, safety, drills, entry level strategies, conditioning, individual and group instruction and practice will be included. Liberal Education Goal Area 11.

**PHED 1784 Skills for Life: Volleyball (1 credit)**
An activity course that examines and applies the fundamentals and skills of volleyball. History and development, basic team systems, rules and strategies of the game will be included. Liberal Education Goal Area 11.

**PHED 1814 Skills for Life: Softball (1 credit)**
An activity course that examines and applies the fundamentals and skills of slow and fast pitch softball. History and rules of the game, terminology, score keeping, safety, field playing areas, drills, and entry level game strategies will be included. Liberal Education Goal Area 11.

**PHED 1840 Skills for Life: Racquetball (1 credit)**
An activity course that examines and applies the fundamentals and skills of racquetball. Components such as safety, serving and volleying will be emphasized. Singles, cutthroat, and doubles play will be introduced. Liberal Education Goal Area 11.

**PHED 1854 Skills for Life: Soccer (1 credit)**
An activity course that examines and applies the fundamentals and skills of soccer. The history of the game, rules and regulations and entry level drill and game strategies will be examined. Liberal Education Goal Area 11.

**PHED 1890 Lifetime Fitness (2 credits)**
This personal fitness class will allow students to develop their own aerobic and possibly strengthening program. They will receive some instruction in the development of fitness, use of equipment, etc., but the focus will be active participation in walking, jogging, rowing, stepping, etc. Liberal Education Goal Area 11.

**PHED 2100 Foundations of Physical Education, Exercise Science, and Sport (3 credits)**
A critical examination of the history, people, events, programs and philosophical positions that have led to the current status of physical education, fitness and sport in the United States. Students will be provided with up-to-date information about physical education and its diverse sub-fields as well as an introduction to career roles and preparation for professional service in all areas of physical education, kinesiology and exercise science.

**PHED 2109 Introduction to Sport Management (3 credits)**
This course will help and assist the prospective sport management major to discover specialized training personnel positions in the rapidly growing sport management field. Concentration will be on the duties and tasks performed, and the competencies needed for a career in sport management. Students will conduct a formal interview with a professional to further discuss the duties, tasks and competencies needed for that professional's field of work.

**PHED 2200 A Lifestyle for Wellness (2 credits)**
An examination of the social, emotional, mental, spiritual and physical dimensions of wellness. Students will examine their own lifestyles and learn how to make behavioral changes. Emphasis on self-esteem, nutritional habits, exercise habits and the importance of self-responsibility. Liberal Education Goal Area 9.

**PHED 2630 Lifeguard Training (3 credits)**
A lecture course with laboratory activity that examines and applies the fundamentals and skills of supervising swimming pool and water front activities. American Red Cross Certification may be earned for: Lifeguard Training and First Aid, CPR/AED for the Professional Rescuer, and Waterfront Lifeguarding. Good swimming skills are needed to succeed in this course.

**PHED 2640 Water Safety Instructor (3 credits)**
A lecture course with laboratory activity that constitutes all the aspects for the training of American Red Cross Water Safety Instructors. American Red Cross Water Safety Instructor Certification may be earned. Contact professor for further details. (May not be offered every year.)

**PHED 2925 People and the Environment: (3 credits)**
This class will explore the concepts of wilderness and recreation and how these relate to practices that protect or enhance the environment. May not be offered every year. Liberal Education Goal Area 10.

**PHED 2970 Internship: Sport Management Practicum (2 credits)**
When taken as Sport Management Practices, the following description applies: A study of various skills, roles, and functions of sport managers in managing people, the workplace, and day-to-day operations. Topics include definitions; management theories; functions of management; time management skills; effective decision making and problem solving; motivational theories, morale, and strategies; leadership theories; personal styles of leadership; and skills and competencies of sport leaders. Also includes practical experience in the organization and administration of sporting events or related areas. Prerequisite: PHED 2109 or consent of instructor.

**PHED 3090 Sport Physiology (2 credits)**
Emphasis on conditioning athletes including body composition, nutrition, cardiovascular fitness, flexibility, strength and other conditioning issues as related to sport training and participation. This course is designed primarily for non-PE majors who are interested in the coaching specialist program.

**PHED 3100 Motor Development (2 credits)**
An introduction to motor development and related motor theories. Application of these basic motor principles to the teaching of physical education and activity at all levels.

**PHED 3110 Motor Learning (2 credits)**
An introductory class in motor control and learning that gives an overview of the processes and mechanisms involved in generating, acquiring, and refining motor skills and of factors that foster or hinder the acquisition and refinement of these skills.

**PHED 3120 Psychology of Sport (2 credits)**
Study of the general relationship between individuals and sports behavior. Covers competitiveness, goal setting, peak performance, psychosocial influences, and rehabilitation. Also includes guides to show how teaching and learning may be applied to the coaching of sport and to bring out the relationship of meaningful learning to successful athletic coaching.

**PHED 3190 Athletic Training (2 credits)**
A lecture course with laboratory activity introducing the five practice domains of athletic training that include: prevention, recognition and evaluation, rehabilitation, reconditioning of athletic injuries, administration and professional development. Other topics include the theory and practice of athletic taping and risk management.

**PHED 3200 Introduction to Sport Biomechanics (3 credits)**
Introduction to biomechanical concepts and principles. Application of these principles to evaluating and improving performance in physical activities. Introduction to methods for qualitative movement analysis. Prerequisite: BIOL 2110 and PHED 3100 or consent of instructor.

**PHED 3219 Sport Economics (2 credits)**
This course provides the an understanding of theories and concepts related to economics of sport. Topics covered include economic growth of the sport industry, concepts of competitive strategy, economic impact principles, economic theory applied to various levels of sport, labor relations, stadium and arenas, venues and events, manufacturing and service industries, and impact of media. Prerequisite: ECON 2000 or consent of instructor.

**PHED 3300 Physiology of Exercise and Nutrition (3 credits)**
An examination of the effects of exercise on the systems of the body as they relate to health and performance. Nutritional concepts of weight control, ergogenic aids and fluid replacement will be discussed. Techniques for developing, prescribing, and assessing fitness components will be presented. Prerequisite: BIOL 2110 or consent of instructor.

**PHED 3449 Socio-Culture and Ethical Issues in Sport (3 credits)**
Study of the general relationship between individuals and sport, and sport and society. Discussions cover the ways sport is linked to other spheres of social life, the organization and behavior patterns of both individuals and groups within sport settings, and the cultural, structural, and situational factors affecting sport and sport experiences.

**PHED 3504 Teaching Rhythms and Dance (2 credits)**
Methods and materials for teaching various forms of rhythms and dance. Components include effective individual and group instruction; cultural and historical implications; dance steps, fundamentals, and a variety of traditional, creative and contemporary dance forms applicable to the K-12 setting. Prerequisite: entrance into the teacher education program or consent of instructor.

**PHED 3505 Teaching Elementary Physical Education (2 credits)**
An introduction to the developmental physical education program at the elementary school level. Components include learner characteristics, program content and organization and methods of teaching physical education. Prerequisite: PHED 3504 and entrance into the teacher education program or consent of instructor.

**PHED 3509 Sport Event Management (2 credits)**
This course will provide the student with an understanding of the responsibilities in managing sport facilities, administering, organizing and producing sporting events. The topics will range from personnel issues, facility protocol and procedures, and emergency plans. Prerequisite: BUAD 2280 or consent of instructor.

**PHED 3519 Sport Facility Management (2 credits)**
This course provides an understanding of sport facility management, facility planning, site and design development, systems and operations, and facility administration. Prerequisite: BUAD 2280 or consent of instructor.

**PHED 3600 Sport Marketing (3 credits)**
Study of fundamental marketing principles utilized in sport. Topics include definitions, marketing planning process, goals and objectives of marketing, marketing mix, segmentation, target markets, consumer behavior, sponsorship, endorsement, merchandising, fundraising, print media and mass communication. Prerequisite: BUAD 2280 or consent of instructor.

**PHED 3604 Teaching Team Sports (2 credits)**
Activities and teaching methods for team sport activities included in current physical education programs at all levels. Prerequisite: entrance into the teacher education program or consent of instructor.

**PHED 3605 Teaching Individual Sports (2 credits)**
Methods of teaching and the practice of the skills such sports as tennis, golf, pickleball, archery, badminton, bowling, and racquetball are the focus. Development of lesson plan, unit plans and application of teaching methods is emphasized. Prerequisite: entrance into the teacher education program or consent of instructor.

**PHED 3607 Teaching Fitness (2 credits)**
Methods of teaching and the practice in the development of physical fitness, including development of the health related fitness components of strength, cardiovascular endurance, muscular endurance, and flexibility with activities such as cross country skiing, exercise walking, orienteering, cycling, yoga, and weight training. Prerequisite: Entrance into the Teacher Education program or consent of instructor.

**PHED 3620 Techniques of Officiating Basketball (1 credit)**
A comprehensive study of the rules governing the game of basketball. Practical experience in simulated game situations will be provided. Information will be available for securing state high school league officiating status. May not be offered every year.

**PHED 3690 Coaching Principles (2 credits)**
The fundamental concepts and basic trends in the field of coaching. The history, present philosophies, psychology, pedagogy, physiology, sports medicine and objectives will be analyzed and examined. Topics that are universal to all coaching disciplines like scheduling, risk management, sport law, dealing with media, parents, peer pressure, and academic requirements will be covered.

**PHED 3710 Basketball Coaching (2 credits)**
The study of the game of basketball and the instructional techniques of individual and team play. Organizational procedures, practice preparation, scouting, rules and regulations, skill sequence and development, offensive, defensive and transitional systems, coaching philosophies and public relations will be examined.

**PHED 3720 Football Coaching (2 credits)**
A comprehensive study of developing a successful football team with an emphasis on teaching appropriate techniques and skills of the game. Practice and game organization, delegation of staff responsibilities and public relations will also be examined.

**PHED 3740 Ice Hockey Coaching (2 credits)**
In depth lectures and discussion concerning offensive and defensive skills and tactics, power play and penalty killing. Skilled positional play of goalies, defensemen, centers, and wings (forwards). Coaching techniques, motivational and leadership development, theory, rules, and regulations. Additional assignments involve planning and evaluating practices, games and athletic talent. Rules, budgets, and equipment repair will be discussed. (May not be offered every year.)

**PHED 3750 Soccer Coaching (2 credits)**
Organization and preparation for interscholastic competition. Emphasis will be on teaching specific soccer skills, individual player structures, practice preparation, and management. Strategies, conditioning and psychology of coaching issues will be examined. (May not be offered every year.)

**PHED 3770 Swimming Coaching (2 credits)**
Emphasis will be on developing knowledge and understanding of the applications of various laws of motion, leverage and flotation in the teaching of advanced swimming and diving skills. Emphasis on pool operation, swimming meet organization and swimming meet rules is included. Class participation includes classroom and laboratory experiences. (May not be offered every year.)

**PHED 3790 Track and Field Coaching (2 credits)**
Discussion and application of fundamental concepts required for effective teaching of the events in track and field. Event enrollment and management along with the aspects of practice and event coaching will be discussed.

**PHED 3800 Volleyball Coaching (2 credits)**
Provides information and training for teaching and coaching volleyball with an emphasis on the high school level. Class lecture and application activities on the court included. (May not be offered every year.)

**PHED 4160 Advanced Fitness Assessment & Prescription-Aerobic (3 credits)**
Theory and practice of physical fitness assessment for the purpose of prescribing aerobic exercise to adults, both healthy populations and those with special conditions, such as obesity, diabetes, osteoporosis, asthma, hypertension, and heart disease. Prepares students for American College of Sports Medicine (ACSM) Health Fitness Specialist exam as well as other personal trainer certifications. Prerequisite: PHED 3300 or consent of instructor.

**PHED 4170 Advanced Principles for Strength and Speed Training Exercise (3 credits)**
Theory and practice of strength and speed training with emphasis on technique analysis and instructional methods for strength training. Includes facility design and equipment purchasing and maintenance. Prepares students for National Strength and Conditioning Association Certified Strength and Conditioning Specialist (CSCS). Prerequisite: PHED 3300 or consent of instructor.

**PHED 4200 Methods of Teaching Elementary Physical Education to Classroom Teachers (1 credit)**
Organization and conduct of the physical education program in the elementary school.

**PHED 4209 Sport Finance (3 credits)**
This course will provide the student an understanding of theories and concepts used in financial resource management for the operation of programs in both public and private sectors of sport. Topics include ethical concerns, decision making, principles of budgeting, budget development, financial statements, spread sheet utilization, and sources of revenue for financing sport. Prerequisites: ACCT 1101 or consent of instructor.

**PHED 4211 D/APE History, Philosophy, Diagnosis and Assessment (3 credits)**
Introduction to physical education for students with disabilities, emphasizing the history and philosophy, legal mandates, resources, administration, curriculum, formal/informal assessment, evaluation, reporting results, IEP development, program planning, and entry/exit criteria. Prerequisites: BIOL 2110, PHED 2100, and PHED 3100.

**PHED 4212 Developmental Techniques for Adapted Physical Education (3 credits)**
Adaptation of physical activities for individuals with disabilities from birth to adulthood, emphasizing the application of current movement science research as outlined by the Individuals with Disabilities Act. Prerequisites: BIOL 2110, PHED 2100, and PHED 3100, or consent of instructor

**PHED 4217 D/APE Sport and Recreation for Individuals with Disabilities (3 credits)**
Through observation, laboratory experience, and discussion, students learn of community opportunities, resources, and advocacy groups as well as environmental adaptations and modifications related to sports and recreational activities for individuals with disabilities. Prerequisites: BIOL 2110, PHED 2100, PHED 3100, PHED 4211, or consent of instructor.

**PHED 4218 Adapted Aquatics (2 credits)**
A practical, hands-on course that applies information learned in prerequisite classes to the teaching of swimming skills to students with physical and/or mental disabilities. BSU students assess swimming skills, develop IEPs, review student progress, and teach swimming skills, using a variety of equipment, to students with a wide range of abilities. Prerequisites: PHED 2640 or consent of instructor.

**PHED 4309 Legal Aspects of Sport, Health, and Fitness (3 credits)**
An overview of the field of sports law, with applications to amateur sport, professional sport, recreation, health, healthcare, and fitness settings. Key areas of the law are identified, and applications within the sport, health and fitness industries are studied. Provides information about legal issues that may help professionals avoid litigation by foreseeing and preventing problems. Prerequisite: Junior or Senior status.

**PHED 4360 Adventure Programming (3 credits)**
Nuts and bolts of planning educational outdoor adventure experiences. Also reviews theory, literature, and program types.

**PHED 4400 Curriculum and Assessment in Physical Education (3 credits)**
Focus on the curricular process and it's evaluation to determine if the curriculum is meeting community and individual student needs. A second focus will be on assessment goals, objectives and outcomes of the cognitive, affective and motor aspects of physical education. Prerequisites: PHED 2100, PHED 3200, and PHED 3300 or consent of instructor.

**PHED 4409 Sport Business Management (3 credits)**
Study of the structures and processes of sport organizations. Topics include definitions; organizational behavior and structure; strategic planning process; organizational philosophy, goals, objectives, and mission statement; and human resource management. Also examines concepts of morality, theories of ethics, professional ethics, social responsibility, personal and management values, and how to develop a professional code of ethics. Prerequisite: PHED 2970 or consent of instructor.

**PHED 4500 Inclusive Physical Education (3 credits)**
An introduction to the study and practice of teaching physical education to children with disabilities in the public schools. Prerequisites: PHED 3100, PHED 3110, PHED 3200, PHED 3504, PHED 3505, PHED 3604, PHED 3605, PHED 3607, or consent of instructor.

**PHED 4920 DGS: (1 credit)**
When taken as Exercise Science Seminar the following description applies: Intended as a capstone course to prepare the Exercise Science major for employment, internship/job procurement, or continuing education in a graduate program. This course integrates discussion of strategies for professional development, as well as providing quality written composition on employment/graduate program goals and objectives. Prerequisite: Senior status or consent of instructor. When taken as Physical Education Seminar the following description applies: Intended as a capstone course to prepare the physical education major for employment, student teaching/job procurement, or continuing education in a graduate program. This course integrates discussion of strategies for professional development, as well as providing quality written composition on employment/graduate program goals and objectives. Prerequisite: Senior status or consent of instructor. When taken as Sport Management Seminar the following description applies: Intended as a capstone course to prepare the sport management major for employment; internship/job procurement, or continuing education in a graduate program. This course integrates discussion of strategies for professional development, as well as providing quality written composition on employment/graduate program goals and objectives. Prerequisite: Senior status or consent of instructor.

**PHED 4921 Varsity Sport: (1 credit)**
Varsity Sport - Participation credit, may be taken once per year of eligibility.

**PHED 4970 Internship (1-12 credits)**
When taken as practicum in athletic coaching, the following description applies: Application of the principles and practices in athletic coaching. A 30 hour practical coaching experience under the guidance and supervision of a licensed coach. This practicum must be conducted at the high school level. Appropriate forms must be filed with the department chairperson. Prerequisites: Completion of at least 70 percent of Physical Education Major or Coaching Specialist Program or consent of instructor. When taken as practicum in D/APE, the following description applies: Observation of and participation in physical education instruction for students pre-K--12 with disabilities. Includes seminar component for discussion of current issues, ideas, and problems in developmental/adapted physical education. Required: A minimum of 30 practicum hours per credit. Prerequisites: BIOL 2110, PHED 2100, PHED 3100, PHED 4500, PHED 4211. When taken as Internship in Exercise Science, the following description applies: This course is for the purpose of providing a supervised field internship experience in an exercise, fitness, and/or wellness-related setting, including hospitals, corporations, private fitness-facilities, and governmental agencies. Or, the internship may take the form of a special project or research on a topic relevant to exercise science. Prior approval must be obtained from the student's internship advisor. A journal, written paper, and/or oral presentation is to be presented following the learning experience. The student is expected to complete 30 hours per credit. Prerequisites: PHED 4160 and PHED 4170, or consent of instructor. When taken as Sport Management internship, the following description applies: Sport management majors are required to complete a field experience that is relevant to their career goals. The internship needs to provide an opportunity for the student to apply the different theories and concepts learned from class in a practical setting through: observation, planning, decision-making, committee work, leadership, operation management, individual projects, and group projects. Required: 400 hours for 12 credit internship to meet accreditation guidelines. Prerequisite: Consent of instructor. When taken as Practicum in Physical Education Teaching, the following description applies: A supervised experience in teaching K-10 students in physical education. Emphasis is on meeting the Minnesota Board of Teaching requirements for physical education majors. Required: A minimum of 30 practicum hours per credit. Prerequisite: PHED 3505 and PHED 3604.

## All-University Courses

The course numbers listed below, not always included in the semester class schedule, may be registered for by consent of the advisor, instructor, or department chair, or may be assigned by the department when warranted. Individual registration requires previous arrangement by the student and the completion of any required form or planning outline as well as any prerequisites.

1910, 2910, 3910, 4910 DIRECTED INDEPENDENT STUDY
1920, 2920, 3920, 4920 DIRECTED GROUP STUDY
1930, 2930, 3930, 4930 EXPERIMENTAL COURSE
1940, 2940, 3940, 4940 IN-SERVICE COURSE
1950, 2950, 3950, 4950 WORKSHOP, INSTITUTE, TOUR
1960, 2960, 3960, 4960 SPECIAL PURPOSE INSTRUCTION
1970, 2970, 3970, 4970 INTERNSHIP
1980, 2980, 3980, 4980 RESEARCH
1990, 2990, 3990, 4990 THESIS

# Geography

Geography is the study of phenomena and events on the earth's surface, including the activities of human beings. Technical skills in remote sensing, mapping, computer applications, GIS, survey research, and writing are the geographer's tools.

All terrestrial activities are subject to geographic analysis. Students in the program learn specific geographic techniques and their application on regional, national, and global levels. Studies in the field, and in effective communication and higher level problem-solving, further prepare students for immediate employment in entry level jobs and for graduate study.

Language study and a strong minor (such as computer science, applied public policy, international studies, space science, biology) enhance employment options for students with bachelor's degrees. Graduate study broadens employment opportunities.

**Programs**

- Geography, B.A. *major*
- Geography, B.S. (Planning Emphasis)*major*
- Geography, B.S. (Physical Geography Emphasis)*major*
- Geography. B.S. (Geographic Information System Emphasis)*major*
- Social Studies, B.A. (Geography Emphasis)*major*
- Wilderness Management and Outdoor Recreation Planning, B.A.S. *major*
- Geographic Information Systems *minor*
- Geography *minor*

**Career Directions**

Aerial Photo Interpreter
Cartographer
Digital Mapper
Geographic Consultant
Geographic Information Systems (GIS) Practitioner
Land Use/Recreation Planner
Market Analyst
Park Ranger/Planner
Park/Recreation Planner
Teacher
Urban/Regional Planner
Also: Graduate Study

**Preparation**

*Recommended High School Courses*

Algebra
Computer Science
English
Geography
Social Studies
Speech Communication

## Geography, B.A. *major*

Required Credits: 57
Required GPA: 2.25

**I REQUIRED CORE**

COMPLETE THE FOLLOWING COURSES:

- GEOG 2100 Introduction to Physical Geography (3 credits)
- GEOG 2200 Introduction to Human Geography (3 credits)
- GEOG 2300 Economic Geography (3 credits)
- GEOG 3231 Introduction to Geographic Information Systems (3 credits)
- GEOG 3531 Political Geography (3 credits)
- GEOG 3532 Political Ecology (3 credits)
- GEOG 4120 Urban Geography (3 credits)
- GEOG 4210 The History and Development of Geographic Thought (3 credits)

**II REGIONAL GEOGRAPHY ELECTIVES**

SELECT 4 OF THE FOLLOWING COURSES:

- GEOG 3410 Geography of North America (3 credits)
- GEOG 3800 Regional Geography (1-3 credits)
- GEOG 3810 Geography of Europe (3 credits)
- GEOG 3820 Geography of East, South, and Southeast Asia (3 credits)
- GEOG 3840 Geography of Africa (3 credits)
- GEOG 3850 Geography of the Middle East (3 credits)
- GEOG 3860 Geography of Latin America and the Caribbean (3 credits)

**III SPATIAL METHODS ELECTIVES**

SELECT 2 OF THE FOLLOWING COURSES:

- GEOG 3226 Cartography (3 credits)
- GEOG 3232 Intermediate Geographic Information Systems (3 credits)
- GEOG 3255 Introduction to Remote Sensing (3 credits)
- GEOG 4190 Qualitative Methods in Geographic Research (3 credits)
- GEOG 4265 Spatial Analysis (3 credits)
- GEOG 4275 Advanced Geographic Information Systems (3 credits)

**IV PHYSICAL GEOGRAPHY ELECTIVES**

SELECT 2 OF THE FOLLOWING COURSES:

- GEOG 3125 Weather and Climate (3 credits)
- GEOG 3630 Conservation Biology (3 credits)
  *or* BIOL 3630 Conservation Biology (3 credits)
- GEOG 4130 Biogeography (3 credits)
- GEOG 4140 Landscape Ecology (3 credits)

**V GEOGRAPHY ELECTIVES**

SELECT 6 SEMESTER CREDITS IN GEOGRAPHY COURSES AT THE 3000-4000 LEVEL

**VI THESIS REQUIREMENT**

COMPLETE THE FOLLOWING COURSE:

- GEOG 4990 Thesis (3 credits)

**SUGGESTED SEMESTER SCHEDULE FOR GEOGRAPHY MAJOR, B.A.**

The following is a list of Geography Major courses arranged by year. This suggested schedule is intended to help students plan their courses in an orderly fashion. Course names that are CAPITALIZED are required core courses. Some courses or course sequences may appear more than once. Geography majors and minors are strongly encouraged to meet with advisors in the Geography program prior to selecting courses as all courses are not offered each year.

Freshman
- GEOG 1400 World Regional Geography (3 credits)(recommended)
- GEOG 2100 Introduction to Physical Geography (3 credits)
- GEOG 2200 Introduction to Human Geography (3 credits)
- GEOG 2300 Economic Geography (3 credits)
- GEOG 3231 Introduction to Geographic Information Systems (3 credits)
- Liberal Education requirements

Sophomore
- GEOG 3232 Intermediate Geographic Information Systems (3 credits)
- GEOG 3255 Introduction to Remote Sensing (3 credits)
- Regional Courses (select 4)
  GEOG 3410 Geography of North America (3 credits)
  GEOG 3800 Regional Geography (1-3 credits)
  GEOG 3810 Geography of Europe (3 credits)
  GEOG 3820 Geography of East, South, and Southeast Asia (3 credits)
  GEOG 3840 Geography of Africa (3 credits)
  GEOG 3850 Geography of the Middle East (3 credits)
  GEOG 3860 Geography of Latin America and the Caribbean (3 credits)
- ENGL 3150 Writing In The Disciplines (3 credits)
- Complete Liberal Education requirements

Junior
- GEOG 3125 Weather and Climate (3 credits)
- GEOG 3226 Cartography (3 credits)
- GEOG 3255 Introduction to Remote Sensing (3 credits)
- GEOG 3531 Political Geography (3 credits)
- GEOG 3532 Political Ecology (3 credits)
- GEOG 3630 Conservation Biology (3 credits)
- GEOG 3XXX Any Remaining Regional Geography Course
- GEOG 4265 Spatial Analysis (3 credits)

Senior
- GEOG 3XXX Any Remaining Regional Geography Course
- GEOG 4120 Urban Geography (3 credits)
- GEOG 4130 Biogeography (3 credits)
- GEOG 4140 Landscape Ecology (3 credits)
- GEOG 4190 Qualitative Methods in Geographic Research (3 credits)
- GEOG 4210 The History and Development of Geographic Thought (3 credits)
- GEOG 4275 Advanced Geographic Information Systems (3 credits)
- Capstone Project

## Geography, B.S. *major*
## Planning Emphasis

Required Credits: 57
Required GPA: 2.25

**I REQUIRED CORE COURSES**

COMPLETE THE FOLLOWING COURSES:

- BUAD 2231 Business Statistics I (3 credits)
  *or* PSY 3401 Basic Statistics for Research (4 credits)
  *or* STAT 2610 Applied Statistics (4 credits)
- ENGL 2150 Technical Writing (3 credits)
  *or* ENGL 3150 Writing In The Disciplines (3 credits)
- GEOG 2100 Introduction to Physical Geography (3 credits)
- GEOG 2200 Introduction to Human Geography (3 credits)
- GEOG 2400 Introduction to Planning (3 credits)
- GEOG 3231 Introduction to Geographic Information Systems (3 credits)
- GEOG 4190 Qualitative Methods in Geographic Research (3 credits)
- GEOG 4265 Spatial Analysis (3 credits)

**II PLANNING EMPHASIS**

REQUIRED PLANNING COURSES
COMPLETE THE FOLLOWING COURSES:

- GEOG 3232 Intermediate Geographic Information Systems (3 credits)
- GEOG 3550 Site and Resource Analysis in Planning (3 credits)
- GEOG 3580 Regional Development Planning (3 credits)

PLANNING COURSE SEQUENCE
SELECT 1 OF THE FOLLOWING COURSE SEQUENCES:
a. Natural Resource Planning

- GEOG 2300 Economic Geography (3 credits)
- GEOG 3532 Political Ecology (3 credits)
- GEOG 3570 Public Lands Planning (3 credits)

b. Urban Resources Planning

- GEOG 3531 Political Geography (3 credits)
- GEOG 3560 Metropolitan Land Use Planning (3 credits)
- GEOG 4120 Urban Geography (3 credits)

REGIONAL GEOGRAPHY ELECTIVES
SELECT 1 OF THE FOLLOWING COURSES:

- GEOG 3410 Geography of North America (3 credits)
- GEOG 3800 Regional Geography (1-3 credits)
- GEOG 3810 Geography of Europe (3 credits)
- GEOG 3820 Geography of East, South, and Southeast Asia (3 credits)
- GEOG 3840 Geography of Africa (3 credits)
- GEOG 3850 Geography of the Middle East (3 credits)
- GEOG 3860 Geography of Latin America and the Caribbean (3 credits)

SPATIAL METHODS ELECTIVES
SELECT 2 OF THE FOLLOWING COURSES:

- GEOG 3232 Intermediate Geographic Information Systems (3 credits)
- GEOG 3226 Cartography (3 credits)
- GEOG 3255 Introduction to Remote Sensing (3 credits)
- GEOG 4275 Advanced Geographic Information Systems (3 credits)

PHYSICAL GEOGRAPHY ELECTIVE
SELECT 1 OF THE FOLLOWING COURSES:

- GEOG 3125 Weather and Climate (3 credits)
- GEOG 3630 Conservation Biology (3 credits)
  *or* BIOL 3630 Conservation Biology (3 credits)
- GEOG 4130 Biogeography (3 credits)
- GEOG 4140 Landscape Ecology (3 credits)

**III CAPSTONE PROJECT**

SELECT 1 OF THE FOLLOWING COURSES:

- GEOG 4910 Directed Independent Study (4 credits)
- GEOG 4970 Internship (4 credits)
- GEOG 4990 Thesis (3 credits)

## Geography, B.S. *major*
## Physical Geography Emphasis

Required Credits: 55
Required GPA: 2.25

**I REQUIRED CORE COURSES**

COMPLETE THE FOLLOWING COURSES:

- BUAD 2231 Business Statistics I (3 credits)
  *or* PSY 3401 Basic Statistics for Research (4 credits)
  *or* STAT 2610 Applied Statistics (4 credits)
- ENGL 2150 Technical Writing (3 credits)
  *or* ENGL 3150 Writing In The Disciplines (3 credits)
- GEOG 2100 Introduction to Physical Geography (3 credits)
- GEOG 2200 Introduction to Human Geography (3 credits)
- GEOG 2400 Introduction to Planning (3 credits)
- GEOG 3231 Introduction to Geographic Information Systems (3 credits)
- GEOG 4190 Qualitative Methods in Geographic Research (3 credits)
- GEOG 4265 Spatial Analysis (3 credits)

**II PHYSICAL GEOGRAPHY EMPHASIS**

REQUIRED PHYSICAL GEOGRAPHY COURSES
COMPLETE THE FOLLOWING COURSES:

- GEOG 3125 Weather and Climate (3 credits)
- GEOG 4130 Biogeography (3 credits)
- GEOG 4140 Landscape Ecology (3 credits)
- GEOL 1110 Physical Geology (4 credits)

NATURAL/EARTH SCIENCE ELECTIVES
SELECT 2 OF THE FOLLOWING COURSES:

- BIOL 2610 General Ecology (3 credits)
- BIOL 3120 Soils (4 credits)
  *or* GEOL 3120 Soils (4 credits)
- GEOG 3630 Conservation Biology (3 credits)
  *or* BIOL 3630 Conservation Biology (3 credits)
- GEOL 2110 Mineralogy and Petrology (4 credits)
- GEOL 3211 Environmental Hydrology (3 credits)
- GEOL 3400 Glacial and Pleistocene Geology (3 credits)
- GEOL 3500 Topics in Paleontology (3 credits)
- GEOL 3600 Stratigraphy and Sedimentation (3 credits)

SPATIAL METHODS ELECTIVES
SELECT 1 OF THE FOLLOWING COURSES:

- GEOG 3226 Cartography (3 credits)
- GEOG 3232 Intermediate Geographic Information Systems (3 credits)
- GEOG 3255 Introduction to Remote Sensing (3 credits)
- GEOG 4275 Advanced Geographic Information Systems (3 credits)

REGIONAL GEOGRAPHY ELECTIVES
SELECT 1 OF THE FOLLOWING COURSES:

- GEOG 3410 Geography of North America (3 credits)
- GEOG 3800 Regional Geography (1-3 credits)
- GEOG 3810 Geography of Europe (3 credits)
- GEOG 3820 Geography of East, South, and Southeast Asia (3 credits)
- GEOG 3840 Geography of Africa (3 credits)
- GEOG 3850 Geography of the Middle East (3 credits)
- GEOG 3860 Geography of Latin America and the Caribbean (3 credits)

HUMAN GEOGRAPHY ELECTIVE
SELECT 1 OF THE FOLLOWING COURSES:

- GEOG 2300 Economic Geography (3 credits)
- GEOG 3531 Political Geography (3 credits)
- GEOG 4120 Urban Geography (3 credits)
- GEOG 4210 The History and Development of Geographic Thought (3 credits)

**III CAPSTONE PROJECT**

SELECT 1 OF THE FOLLOWING COURSES:

- GEOG 4910 Directed Independent Study (4 credits)
- GEOG 4970 Internship (4 credits)
- GEOG 4990 Thesis (3 credits)

**SUGGESTED SEMESTER SCHEDULE FOR GEOGRAPHY MAJORS, B.S. (PHYSICAL GEOGRAPHY EMPHASIS)**

The following is a list of Geography Major courses arranged by year. This suggested schedule is intended to help students plan their courses in an orderly fashion. Course names that are CAPITALIZED are required core courses. Some courses or course sequences may appear more than once. Geography majors and minors are strongly encouraged to meet with advisors in the Geography program prior to selecting courses as all courses are not offered each year. Given that the study of Geography is inherently interdisciplinary, all Geography students in this major are required to take courses outside of the Geography Curriculum. The 6-8 credits of Natural/Earth Science electives include courses in Geology and Biology and may be selected in any year, provided all prerequisites for those specific courses are met.

Freshman
- ENGL 2150 Technical Writing (3 credits)
  or ENGL 3150 Writing In The Disciplines (3 credits)
- GEOG 1400 World Regional Geography (3 credits) (recommended)
- GEOG 2100 Introduction to Physical Geography (3 credits)
- GEOG 2200 Introduction to Human Geography (3 credits)
- GEOG 3231 Introduction to Geographic Information Systems (3 credits)
- GEOL 1110 Physical Geology (4 credits)
- Liberal Education requirements

Sophomore
- BUAD 2231 Business Statistics I (3 credits)
  or PSY 3401 Basic Statistics for Research (4 credits)
  or STAT 2610 Applied Statistics (4 credits)
- GEOG 2400 Introduction to Planning (3 credits)
- GEOG 3125 Weather and Climate (3 credits)
- Spatial Methods Electives (more than one is recommended, though not required)
- Complete Liberal Education requirements

Junior
- Natural/Earth Science Electives
- Regional Geography Electives
- Human Geography Electives

- GEOG 4130 Biogeography (3 credits)
- GEOG 4140 Landscape Ecology (3 credits)

Senior
- Capstone Project
- GEOG 4190 Qualitative Methods in Geographic Research (3 credits)
- GEOG 4265 Spatial Analysis (3 credits)

## Geography. B.S. *major*
## Geographic Information System Emphasis

Required Credits: 54
Required GPA: 2.25

**I REQUIRED CORE COURSES**

COMPLETE THE FOLLOWING COURSES:

- BUAD 2231 Business Statistics I (3 credits)
  *or* PSY 3401 Basic Statistics for Research (4 credits)
  *or*STAT 2610 Applied Statistics (4 credits)
- ENGL 2150 Technical Writing (3 credits)
  *or*ENGL 3150 Writing In The Disciplines (3 credits)
- GEOG 2100 Introduction to Physical Geography (3 credits)
- GEOG 2200 Introduction to Human Geography (3 credits)
- GEOG 2400 Introduction to Planning (3 credits)
- GEOG 3231 Introduction to Geographic Information Systems (3 credits)
- GEOG 4190 Qualitative Methods in Geographic Research (3 credits)
- GEOG 4265 Spatial Analysis (3 credits)

**II GEOGRAPHIC INFORMATION SYSTEM EMPHASIS**

REQUIRED GIS COURSES
COMPLETE THE FOLLOWING COURSES:

- GEOG 3226 Cartography (3 credits)
- GEOG 3232 Intermediate Geographic Information Systems (3 credits)
- GEOG 3255 Introduction to Remote Sensing (3 credits)
- GEOG 4275 Advanced Geographic Information Systems (3 credits)

PHYSICAL GEOGRAPHY ELECTIVE
SELECT 1 OF THE FOLLOWING COURSES:

- GEOG 3125 Weather and Climate (3 credits)
- GEOG 3630 Conservation Biology (3 credits)
  *or*BIOL 3630 Conservation Biology (3 credits)
- GEOG 4130 Biogeography (3 credits)
- GEOG 4140 Landscape Ecology (3 credits)

HUMAN GEOGRAPHY ELECTIVE
SELECT 1 OF THE FOLLOWING COURSES:

- GEOG 2300 Economic Geography (3 credits)
- GEOG 3531 Political Geography (3 credits)
- GEOG 4120 Urban Geography (3 credits)
- GEOG 4210 The History and Development of Geographic Thought (3 credits)

REGIONAL GEOGRAPHY ELECTIVES
SELECT 1 OF THE FOLLOWING COURSES:

- GEOG 3410 Geography of North America (3 credits)
- GEOG 3800 Regional Geography (1-3 credits)
- GEOG 3810 Geography of Europe (3 credits)
- GEOG 3820 Geography of East, South, and Southeast Asia (3 credits)
- GEOG 3840 Geography of Africa (3 credits)
- GEOG 3850 Geography of the Middle East (3 credits)
- GEOG 3860 Geography of Latin America and the Caribbean (3 credits)

COGNATE FIELD ELECTIVES
SELECT 2 OF THE FOLLOWING COURSES:

- BUAD 4385 Data Modeling and Design (3 credits)
- CS 1309 Problem Solving and Computation (3 credits)
  *or*
  CS 1107 Introduction to Computers (3 credits)
  and CS 1108 Introduction to Computers II (3 credits)
- CS 2270 Introduction to Web Programming (3 credits)
- CS 2321 Computer Science I (4 credits)
- CS 2322 Computer Science II (4 credits)
- CS 3270 Advanced Web Programming (3 credits)
- CS 3507 Introduction to Databases (3 credits)
- TADT 1460 2D Graphics And Laser Etching (3 credits)

**III CAPSTONE PROJECT**

SELECT 1 OF THE FOLLOWING COURSES:

- GEOG 4910 Directed Independent Study (4 credits)
- GEOG 4970 Internship (4 credits)
- GEOG 4990 Thesis (3 credits)

## Social Studies, B.A. *major*
## Geography Emphasis

**Note:** A minimum of 22 semester credits used to meet course requirements in I and II must be completed at Bemidji State University. No course grade below a C may be used to meet these requirements and a minimum GPA of 2.50 in this major is required for graduation. Students who desire a second field of emphasis are to consider completion a minor or a second major in that field. Such action may complement and increase the marketability of this major.

Required Credits: 48
Required GPA: 2.50

**I REQUIRED CORE CURRICULUM**

CAPSTONE COURSE
COMPLETE THE FOLLOWING COURSE:

- POL 4500 Thesis and Career Preparation (3 credits)

ECONOMICS COURSES
SELECT 1 OF THE FOLLOWING COURSES:

- ECON 2000 Markets and Resource Allocation (3 credits)
- ECON 2100 Macroeconomics and the Business Cycle (3 credits)

GEOGRAPHY COURSES
SELECT 1 OF THE FOLLOWING COURSES

- GEOG 2100 Introduction to Physical Geography (3 credits)
- GEOG 2200 Introduction to Human Geography (3 credits)

GEOGRAPHY COURSES
SELECT 1 OF THE FOLLOWING COURSES:

- GEOG 3410 Geography of North America (3 credits)

- GEOG 3800 Regional Geography (1-3 credits)
- GEOG 3810 Geography of Europe (3 credits)
- GEOG 3820 Geography of East, South, and Southeast Asia (3 credits)
- GEOG 3840 Geography of Africa (3 credits)

UPPER DIVISION WORLD HISTORY
SELECT 1 OF THE FOLLOWING COURSES

- HST 2218 Medieval Europe (3 credits)
- HST 2228 Renaissance and Reformation Europe (3 credits)
- HST 2580 Russia (3 credits)
- HST 2600 Topics in History (3 credits)
- HST 2660 Women and History (3 credits)
- HST 2700 The History of World Religions (3 credits)
- HST 2800 Reacting to the Past (3 credits)
- HST 3159 The World at War, 1931-1945 (3 credits)
- HST 3208 Greece and Rome, 1500 BCE-500 CE (3 credits)
- HST 3258 The Roman Civil Law Tradition (3 credits)
- HST 3268 The Roman Revolution, 200 BCE-CE 14 (3 credits)
- HST 3277 Readings and Research in European History (3 credits)
- HST 3409 Colonialism and Modernization in the Non-Western World (3 credits)
- HST 3419 East Asia (3 credits)
- HST 3429 South and Southeast Asia (3 credits)
- HST 3449 Middle East (3 credits)
- HST 3459 Latin America (3 credits)

UPPER DIVISION U.S. HISTORY
SELECT 1 OF THE FOLLOWING COURSES

- HST 2600 Topics in History (3 credits)
- HST 2610 Minnesota History (3 credits)
- HST 2640 United States Diplomatic History (3 credits)
- HST 2667 Men and Women: Gender in America (3 credits)
- HST 2800 Reacting to the Past (3 credits)
- HST 3117 American Revolutionary Era, 1763-1800 (3 credits)
- HST 3128 Testing Democracy: Reform in Nineteenth-Century America (3 credits)
- HST 3137 Civil War and Reconstruction, 1844-1877 (3 credits)
- HST 3159 The World at War, 1931-1945 (3 credits)
- HST 3187 American West (3 credits)

POLITICAL SCIENCE COURSES
SELECT 1 OF THE FOLLOWING COURSES

- POL 1200 Introduction to American Politics (3 credits)
- POL 1300 Introduction to International Relations (3 credits)
- POL 1400 Introduction to Comparative Politics (3 credits)

POLITICAL SCIENCE COURSES
SELECT 1 OF THE FOLLOWING COURSES

- POL 3100 American Foreign Policy (3 credits)
- POL 3130 Asian Political Development (3 credits)
- POL 3150 Topics in Political Science (1-3 credits)
- POL 3160 Comparative European Politics (3 credits)
- POL 3170 International Relations (3 credits)
- POL 3180 International Law and Organization (3 credits)
- POL 3190 International Political Economy (3 credits)
- POL 3200 Minnesota Politics (3 credits)
- POL 3210 Public Administration (3 credits)
- POL 3230 Environmental Politics (3 credits)
- POL 3410 Legislative and Executive Relations (3 credits)
- POL 3420 Campaigns and Elections (3 credits)
- POL 4200 Constitutional Law (3 credits)

SOCIOLOGY COURSES
COMPLETE THE FOLLOWING COURSES:

- SOC 2200 Social Movements and Change (3 credits)
- SOC 3010 Social Theory (3 credits)

**II REQUIRED FIELD OF EMPHASIS**

SELECT 18 SEMESTER CREDITS OF ELECTIVES FROM GEOGRAPHY

**SUGGESTED SEMESTER SCHEDULE FOR SOCIAL STUDIES MAJOR, B.A.**

The following is suggested for logical and effective scheduling but can be interpreted as flexible for meeting requirements and a student's particular needs. Students should meet with the Social Studies coordinator and advisor as early as possible in their planning.

Freshman - Sophomore

- Geography and History constitute the "matrix" of Social Studies and students should complete required core courses in these subjects first.
- Complete Liberal Education requirements

Junior-Senior

- Complete remaining core course requirements and courses for area of emphasis.
- Complete Professional Education courses
- Students pursuing the B.S. Teacher Licensure in Social Studies should complete GEOG 3460 no sooner than their junior year, preferably just prior to their student teaching.

## Wilderness Management and Outdoor Recreation Planning, B.A.S. *major*

For students transferring to Bemidji State University with a Wilderness Management A.S. from Vermilion Community College.

Required Credits: 57
Required GPA: 2.25

**I REQUIRED CORE COURSES**

COMPLETE THE FOLLOWING COURSES:

- BUAD 2231 Business Statistics I (3 credits)
  *or* PSY 3401 Basic Statistics for Research (4 credits)
  *or* STAT 2610 Applied Statistics (4 credits)
- ENGL 2150 Technical Writing (3 credits)
  *or* ENGL 3150 Writing In The Disciplines (3 credits)
- GEOG 2100 Introduction to Physical Geography (3 credits)
- GEOG 2200 Introduction to Human Geography (3 credits)
- GEOG 2400 Introduction to Planning (3 credits)
- GEOG 3231 Introduction to Geographic Information Systems (3 credits)
- GEOG 4190 Qualitative Methods in Geographic Research (3 credits)
- GEOG 4265 Spatial Analysis (3 credits)

**II WILDERNESS MANAGEMENT AND OUTDOOR RECREATION**

REQUIRED WILDERNESS MANAGEMENT COURSES
COMPLETE THE FOLLOWING COURSES:

- ANTH 1110 Cultural Anthropology (3 credits)
- BIOL 2610 General Ecology (3 credits)
- BUAD 3351 Management (3 credits)
- ECON 3040 Environmental Economics (3 credits)
- GEOG 3532 Political Ecology (3 credits)
- GEOG 3570 Public Lands Planning (3 credits)
- GEOG 4130 Biogeography (3 credits)

REGIONAL GEOGRAPHY ELECTIVES
SELECT 1 OF THE FOLLOWING COURSES:

- GEOG 3410 Geography of North America (3 credits)
- GEOG 3800 Regional Geography (1-3 credits)
- GEOG 3810 Geography of Europe (3 credits)
- GEOG 3820 Geography of East, South, and Southeast Asia (3 credits)
- GEOG 3840 Geography of Africa (3 credits)
- GEOG 3850 Geography of the Middle East (3 credits)
- GEOG 3860 Geography of Latin America and the Caribbean (3 credits)

SPATIAL METHODS ELECTIVE
SELECT 1 OF THE FOLLOWING COURSES:

- GEOG 3232 Intermediate Geographic Information Systems (3 credits)
- GEOG 3226 Cartography (3 credits)
- GEOG 3255 Introduction to Remote Sensing (3 credits)
- GEOG 4275 Advanced Geographic Information Systems (3 credits)

PHYSICAL GEOGRAPHY ELECTIVE
SELECT 1 OF THE FOLLOWING COURSES:

- GEOG 3125 Weather and Climate (3 credits)
- GEOG 3630 Conservation Biology (3 credits)
  *or* BIOL 3630 Conservation Biology (3 credits)
- GEOG 4140 Landscape Ecology (3 credits)

**III CAPSTONE PROJECT**

SELECT 1 OF THE FOLLOWING COURSES:

- GEOG 4910 Directed Independent Study (4 credits)
- GEOG 4970 Internship (4 credits)
- GEOG 4990 Thesis (3 credits)

## Geographic Information Systems *minor*

Required Credits: 24
Required GPA: 2.00

I REQUIRED COURSES

CORE GEOGRAPHY COURSE
SELECT 1 OF THE FOLLOWING COURSES:

- GEOG 2100 Introduction to Physical Geography (3 credits)
- GEOG 2200 Introduction to Human Geography (3 credits)

II REQUIRED GIS COURSES
COMPLETE THE FOLLOWING COURSES:

- BUAD 2231 Business Statistics I (3 credits)
  *or* PSY 3401 Basic Statistics for Research (4 credits)
  *or* STAT 2610 Applied Statistics (4 credits)
- GEOG 3231 Introduction to Geographic Information Systems (3 credits)
- GEOG 3232 Intermediate Geographic Information Systems (3 credits)
- GEOG 3226 Cartography (3 credits)
- GEOG 3255 Introduction to Remote Sensing (3 credits)
- GEOG 4265 Spatial Analysis (3 credits)
- GEOG 4275 Advanced Geographic Information Systems (3 credits)

## Geography *minor*

Required Credits: 24
Required GPA: 2.00

**I REQUIRED COURSES**

COMPLETE THE FOLLOWING COURSES:

- GEOG 2100 Introduction to Physical Geography (3 credits)
- GEOG 2200 Introduction to Human Geography (3 credits)
- GEOG 2400 Introduction to Planning (3 credits)
- GEOG 3231 Introduction to Geographic Information Systems (3 credits)

**II REGIONAL GEOGRAPHY REQUIREMENT**

SELECT 1 OF THE FOLLOWING COURSES:

- GEOG 3410 Geography of North America (3 credits)
- GEOG 3800 Regional Geography (1-3 credits)
- GEOG 3810 Geography of Europe (3 credits)
- GEOG 3820 Geography of East, South, and Southeast Asia (3 credits)
- GEOG 3840 Geography of Africa (3 credits)
- GEOG 3850 Geography of the Middle East (3 credits)
- GEOG 3860 Geography of Latin America and the Caribbean (3 credits)

**III GEOGRAPHY ELECTIVES**

SELECT 3 ADDITIONAL GEOGRAPHY COURSES (9 credits)

## Geography Courses

**GEOG 1224 Introduction to Map Use (3 credits)**
This course is designed for the liberal education program and provides an introduction to common characteristics and use of map media. Topographic maps will be used for physical analysis as well as to discern cultural and economic features of landscapes. Thematic maps, their use and applications will be presented. Includes some study out-of-doors with map and compass. Liberal Education Goal Areas 5 & 11.

**GEOG 1400 World Regional Geography (3 credits)**
A survey of physical, cultural, and economic aspects of world regions. An introduction to how constituent parts of the world differ from one another in their associated resources, cultures and economics. Attention is given to the interrelationships, interdependencies, and associations that bind together the diverse communities of the world. Liberal Education Goal Areas 7 & 8.

**GEOG 2100 Introduction to Physical Geography (3 credits)**
This course is designed for the liberal education program and provides an introduction to spatial patterns derived from earth system processes. The course provides a systematic survey of land forms, weather and climate, soils and vegetation. This course utilizes a combination of in class discussion and laboratory-like exercises to investigate these topics. Liberal Education Goal Area 3.

**GEOG 2200 Introduction to Human Geography (3 credits)**
Emphasizes the study of geographical relationships and interactions of cultural, social, economic, ethnic, and political phenomena. Topical approach to population subgroups, religions, languages, urban and rural settlements, and other attributes of the cultural landscape. Liberal Education Goal Areas 7 & 8.

**GEOG 2300 Economic Geography (3 credits)**
Spatial structure of world economic activities; agriculture, forestry, fishing, mining, industry and trade. Liberal Education Goal Area 5.

**GEOG 2400 Introduction to Planning (3 credits)**
This course is designed for the liberal education program and provides information on the background and fundamentals of the community planning process. Includes discussion of contemporary issues in physical, environmental and social planning. Emphasis is on the local and subregional levels. Liberal Education Goal Areas 5 & 9.

**GEOG 2925 People and the Environment: Geography Perspective (3 credits)**
An integrative study of the natural, social, value-based, and citizen-action contexts for environmental awareness. The disciplinary component surveys geographic approaches to and institutional settings for environmental problems and decision making, including our spatial behaviors as either sources or recipients of environmental impacts. Interdisciplinary perspectives are evaluated in light of different geographic concepts of spatial distributions, physical geography, and regional planning. Liberal Education Goal Area 10.

**GEOG 3125 Weather and Climate (3 credits)**
Weather is the study of the atmosphere over short time scales, while climate is the study of long-term weather trends. The study of weather is commonly termed meteorology, which is actually a branch of physics associated with fluid dynamics. Climate is associated with statistical procedures and analyses. This course examines the geographic patterns and processes of global climate and weather, as well as topics such as global climate change, global climate models, and extreme weather events. Students learn about the Earths atmosphere; energy budgets and astronomical controls on weather processes; oceanic and atmospheric circulation; the basic atmospheric parameters; atmospheric hazards such as tornadoes, hurricanes, hail, and lightning; and global climate change issues. Prerequisite: GEOG 2100 or consent of instructor.

**GEOG 3226 Cartography (3 credits)**
This course provides a more integrated, practical link between cartographic theory and practice for users of GIS. This course blends theoretical discussion of GIS as a science and GIS as a software application and addresses through lecture and laboratory work map productions for a variety of audiences. A particular focus of this course is on quality communication through maps. Experience with GIS software is essential. Prerequisite: GEOG 3231.

**GEOG 3231 Introduction to Geographic Information Systems (3 credits)**
This course develops a proficiency in basic GIS skills for those new to GIS. Techniques for problem solving and cartographic mapping concepts are also introduced, as they are essential to quality cartographic representation and a marketable skill set. This course concentrates on learning to navigate the current version of ArcGIS software at a beginner's level and one developing and creating maps as communication tools.

**GEOG 3232 Intermediate Geographic Information Systems (3 credits)**
An intermediate course on the theories and application of GIS for spatial data management and analysis, thematic mapping, environmental modeling. This course expands on the concepts and methods presented in Introduction to GIS and guides students through a more comprehensive overview of principles and techniques used in GIS. Course objectives include (1) enhance and build knowledge of GIS as a system and science, (2) improve skills at GIS analysis, and (3) develop and improve problem solving skills. Prerequisite: GEOG 3231 or consent of instructor.

**GEOG 3255 Introduction to Remote Sensing (3 credits)**
Analysis of a special class of pictures that provide an overhead perspective. These images have unique properties that provide a distinct advantage to assessing spatial changes and patterns of change on the Earths surface. Students develop an understanding and the skills necessary for interpreting air photos, satellite, and remotely sensed images. Prerequisite: GEOG 3231 or consent of instructor.

**GEOG 3410 Geography of North America (3 credits)**
A regional analysis of the physical, demographic, economic and cultural characteristics of the nations in North America.

**GEOG 3460 Teaching of Middle and Secondary School Social Studies (4 credits)**
Objectives, activities, methods, and materials in teaching social studies in grades 5-12. Additional laboratory time is required. Prerequisite: ED 3110.

**GEOG 3531 Political Geography (3 credits)**
This course utilizes "World Systems Theory" to investigate 1) theories of State formation and organization; 2) historical processes of imperialism, colonialism, and decolonization; 3) major issues of the emerging political economy; 4) historical and contemporary geopolitics; and 5) the political geography of everyday life.

**GEOG 3532 Political Ecology (3 credits)**
Political ecology utilizes a necessary geographical perspective to understand and analyze the biophysical processes that shape issues otherwise inadequately conceptualized as political, economic or social. This spatial understanding developed by political geographers reveals relationships of the ecological and the political that are simultaneously mutually reinforcing and, often, mutually antagonistic. Prerequisite: GEOG 3531 or consent of instructor.

**GEOG 3550 Site and Resource Analysis in Planning (3 credits)**
This course emphasizes techniques and methods in the location, analysis, evaluation, and design of sites, focusing on identifying use potentials and impact limitations for planning and management. Prerequisite: GEOG 2400 or consent of instructor.

**GEOG 3560 Metropolitan Land Use Planning (3 credits)**
An examination of the identification and inventory methods of land use analysis including the designing of land use models which are compatible with environmental, social, and economic goals. Prerequisites: GEOG 2100, GEOG 2400, or consent of instructor. Prior completion of or concurrent enrollment in either GEOG 3550 or GEOG 3570 is recommended.

**GEOG 3570 Public Lands Planning (3 credits)**
Comparison and evaluation of natural resource management policies and analytical techniques of the U.S. Forest Service, Bureau of Land Management, National Park Service and U.S. Fish and Wildlife Service. Attention is paid to the historical and contemporary land management approaches used to protect, exploit, manage, and/or use public lands in the United States. Especially relevant are jurisdictional issues over public land, federal agencies involved in land management, state and local issues and land management, and contemporary issues associated with land management in the 21st Century. Prerequisites: GEOG 2400 and GEOG 3550, or consent of instructor.

**GEOG 3580 Regional Development Planning (3 credits)**
An examination of methods and processes emphasizing contemporary relationships between planners and governments, the private sector, and nongovernmental organizations regarding relationships between regions nationally and internationally, with special attention to environmental sustainability. Prerequisite(s): GEOG 2400 and GEOG 3570, and either GEOG 2300 or GEOG 3560. Students are strongly recommended to have previously completed GEOG 4265 or to be enrolled in GEOG 4265 concurrently with GEOG 3580.

**GEOG 3630 Conservation Biology (3 credits)**
Principles and theories of conservation biology. Topics include biodiversity, threats to biodiversity, extinctions, management of threatened and endangered species, managing habitats for conservation, and methods to mitigate biodiversity loss. Prerequisites: BIOL 1211 and BIOL 1212, or consent of instructor. Also BIOL 3630.

**GEOG 3800 Regional Geography (1-3 credits)**
A regional and topical analysis of the cultural and physical features of a continent or major region of the earth. May be repeated provided different regions are involved. Note: Recommended for students in international studies, foreign languages, and for prospective teachers in the humanities or social studies.

**GEOG 3810 Geography of Europe (3 credits)**
A regional analysis of the cultural, economic, physical and landscape patterns of the European cultural region. NOTE: Recommended for students in Euro-Spring, International Studies, foreign languages, and prospective teachers. Liberal Education Goal Area 5.

**GEOG 3820 Geography of East, South, and Southeast Asia (3 credits)**
This course is designed to provide a more in depth look at Asian sub regions of South, East and Southeast Asia. Geographically, we will examine and analyze activities in this part of the world through cultural, demographic, political, economic, urban and geopolitical lenses. Liberal Education Goal Area 8. Might not be offered every year. Prerequisite: GEOG 1400 or GEOG 2200.

**GEOG 3840 Geography of Africa (3 credits)**
Despite persistent bias about it, Africa's cultural complexity, social dynamism, and political/economic struggle have tremendous relevance for the study of global trends at the start of the twenty-first century. The central purpose of this course is to demonstrate that relevance by investigating the cultural, historical, economic, and political dimensions of change in Africa.

**GEOG 3850 Geography of the Middle East (3 credits)**
This course is designed to provide a more in depth look at the region we routinely describe as the Middle East. Geographically, we will examine activities in SW Asia and the nations of North Africa. We may extend our discussion to the countries of Afghanistan, the Sudan, South Sudan and Turkey to provide a more comprehensive analysis of a particular topic or subtopic. This is a highly complex region and may be looked at from numerous perspectives. Our objective thus is to examine the region through economic, cultural, environmental, urban and geopolitical lenses. Prerequisite: GEOG 1400 or GEOG 2200.

**GEOG 3860 Geography of Latin America and the Caribbean (3 credits)**
This course is designed to provide a more in depth look at the region of Latin America and the Caribbean. We recognize at the outset that this is a broad subject and may be looked at from numerous perspectives. Our objective thus is to examine this geographic region through economic, cultural, environmental, urban and political lenses. The text book provides the basis for our study which is further complemented by each students (1) research into an issue or event that had a far reaching impact on this region or within its sub-regions, (2) reading of works of fiction set in Latin America and (3) viewing feature films with Latin American themes. Prerequisite: GEOG 1400 or GEOG 2200.

**GEOG 4120 Urban Geography (3 credits)**
Functions and distribution of cities. Urban sizes, hierarchies, and external relations with the countryside. The central place and other theories of the spacing of cities. Internal structures and functions of cities, the growth of cities, urban slums, urban sprawl, and city planning. Systematic. Prerequisite: GEOG 2200 or consent of instructor.

**GEOG 4130 Biogeography (3 credits)**
This course examines the distribution and diversity of flora and fauna across multiple scales. It will focus on the factors that shape and influence these patterns and investigate the role of disturbance in this process. It will also incorporate both field and lab experiences to further examine the key concepts of biogeography. Prerequisites: GEOG 2100 and GEOG 3231.

**GEOG 4140 Landscape Ecology (3 credits)**
This course examines the connection of pattern and process at the scale of the landscape. Students will utilize several analytical methods to examine and explain how humans, disturbance and natural process work in concert to create landscape-level dynamics and change. The course will also cover how landscape ecology is applied to assist in conservation efforts. Prerequisites: GEOG 2100 and GEOG 3231.

**GEOG 4190 Qualitative Methods in Geographic Research (3 credits)**
As a geographic perspective becomes increasingly important in analysis of critical issues at multiple scales from the local to the global, this course demonstrates how research grounded in qualitative methodologies encourages innovative approaches and yields significant insights. Prerequisite: GEOG 2200. While not required, it is highly recommended that GEOG 4210 and GEOG 4265 be taken previously or concurrently.

**GEOG 4210 The History and Development of Geographic Thought (3 credits)**
Development of the discipline of Geography with emphasis on both the historical and recent developments in the field. Includes a critical analysis of writing of representative geographers.

**GEOG 4265 Spatial Analysis (3 credits)**
An examination in the concepts and application of advance spatial statistical methodologies. These include, kriging, spatial autocorrelation, spatial regression models, and cluster analysis. Prerequisites: STAT 2610 or PSY 3401 or BUAD 2231 and GEOG 3231.

**GEOG 4275 Advanced Geographic Information Systems (3 credits)**
This course will give students hands on experience working with advanced geodatabases, the basic automation and scripting of geospatial processes, web mapping, and server side application in GIS. Prerequisites: GEOG 3231 and GEOG 3232.

**GEOG 4910 Directed Independent Study (4 credits)**
Arranged individual study.

**GEOG 4970 Internship (4 credits)**
Graded Satisfactory/Unsatisfactory only. Student internships may be either full-time or part-time in a public or private agency appropriate to the degree objective. Internships consist of closely supervised periods of service that are arranged in advance of the course registration. Students should consult their advisor concerning prerequisites.

**GEOG 4990 Thesis (3 credits)**
Working individually with a thesis advisor, the student produces a Geography thesis. The thesis must be a scholarly piece of work, based on empirical or archival research of a geographical issue (physical, demographic, economic, cultural, and/or political) of present or future relevance. The end product is a documented essay of at least minimally required length and format that must be approved by the advisor and at least one other member of the Geography Department after a brief oral defense.

## All-University Courses

The course numbers listed below, not always included in the semester class schedule, may be registered for by consent of the advisor, instructor, or department chair, or may be assigned by the department when warranted. Individual registration requires previous arrangement by the student and the completion of any required form or planning outline as well as any prerequisites.

1910, 2910, 3910, 4910 DIRECTED INDEPENDENT STUDY
1920, 2920, 3920, 4920 DIRECTED GROUP STUDY
1930, 2930, 3930, 4930 EXPERIMENTAL COURSE
1940, 2940, 3940, 4940 IN-SERVICE COURSE
1950, 2950, 3950, 4950 WORKSHOP, INSTITUTE, TOUR
1960, 2960, 3960, 4960 SPECIAL PURPOSE INSTRUCTION
1970, 2970, 3970, 4970 INTERNSHIP
1980, 2980, 3980, 4980 RESEARCH
1990, 2990, 3990, 4990 THESIS

# Geology

Geology is the study of the rocks and minerals that make up earth and the physical and biological processes that shape earth, both at and below the surface. These processes include plate tectonics, volcanism, earthquakes, mountain building, and erosion. Traditionally, geologists have been concerned with industrial application of their skills in such areas as the search for oil and minerals. Today, geologists find that their insight and assistance is also valued in rapidly expanding fields such as geography, environmental studies, engineering, and hydrogeology and in such diverse fields as paleontology and oceanography.

The minor in Geology, coupled with a strong science major, is valuable as preparation for graduate study in geology and related areas. A graduate degree is usually required for career advancement beyond entry-level positions.

**Programs**

- Geology *minor*

**Career Directions**

Consultant
Geochemist
Geologist
Geophysicist
Hydrologist
Mineralogist
Paleontologist
Petrologist
Planetary Geologist
Science Writer
Stratigrapher
Teacher
Also: Graduate Study

**Preparation**

*Recommended High School Courses*
Algebra
Biology
Chemistry
Physics
Trigonometry

## Geology *minor*

Required Credits: 24
Required GPA: 2.00

**I REQUIRED COURSES**

COMPLETE THE FOLLOWING COURSES:

- GEOL 1110 Physical Geology (4 credits)
- GEOL 1120 Historical Geology (4 credits)
- GEOL 2110 Mineralogy and Petrology (4 credits)

Select one of the following courses:

- GEOL 3120 Soils (4 credits)
  *or* BIOL 3120 Soils (4 credits)
- GEOL 3400 Glacial and Pleistocene Geology (3 credits)
- GEOL 3600 Stratigraphy and Sedimentation (3 credits)

**II REQUIRED ELECTIVES**

SELECT 9-11 ADDITIONAL CREDITS FROM THE FOLLOWING:

- GEOL 2730 Introduction to Planetary Science (4 credits)
- GEOL 3120 Soils (4 credits)
  *or* BIOL 3120 Soils (4 credits)
- GEOL 3211 Environmental Hydrology (3 credits)
- GEOL 3212 Hydrogeology (3 credits)
- GEOL 3400 Glacial and Pleistocene Geology (3 credits)
- GEOL 3500 Topics in Paleontology (3 credits)
- GEOL 3600 Stratigraphy and Sedimentation (3 credits)
- GEOL 3700 Environmental Geophysics (3 credits)
- GEOL 4910 Directed Independent Study (3 credits)

## Geology Courses

**GEOL 1110 Physical Geology (4 credits)**
Introduction to modern geology. Study of rocks and minerals and the processes operating on Earth. Lecture and laboratory. Liberal Education Goal Areas 3 (LC) & 10.

**GEOL 1120 Historical Geology (4 credits)**
Introduction to the history of Earth. Includes study of major fossil groups and significant geologic events with an emphasis on North America. Lecture and laboratory. Liberal Education Goal Area 3 (LC).

**GEOL 2110 Mineralogy and Petrology (4 credits)**
Identification and occurrence of minerals and igneous, metamorphic and sedimentary rocks. Introduction to diagnostic tests including spectrometer and polarizing microscope. Lecture and laboratory. Prerequisites: GEOL 1110 and GEOL 1120.

**GEOL 2730 Introduction to Planetary Science (4 credits)**
An introduction and examination of the solar system, planets, satellites, asteroids, comets, and meteorites. Atmospheric pheomena, magnetic fields, cosmic particles and the human presence in Space are included. Includes laboratory-like activities and exercises. Liberal Education Goal Area 3.

**GEOL 2925 People and the Environment: Earth Science Perspective (3 credits)**
Application of the Earth Sciences in understanding the causes of, and solutions to, environmental problems. Environmental perspectives on geologic hazards. Liberal Education Goal Area 10.

**GEOL 3120 Soils (4 credits)**
Introduction to principles of soil genesis, classification, physical and chemical properties, and biological signifigance. Lecture and laboratory. Prerequisites: BIOL 1211 and BIOL 1212 or consent of instructor. May not be offered every year.

**GEOL 3211 Environmental Hydrology (3 credits)**
Factors affecting the occurrence and availability of ground and surface waters. Water budgets and the hydrologic cycle, watershed behavior and flood prediction. Types of aquifers and confining beds, aquifer properties, groundwater flow, introduction to groundwater chemistry; water law and management. Prerequisites: GEOL 1110 or GEOL 1120, MATH 1170 or equivalent, or consent of instructor.

**GEOL 3212 Hydrogeology (3 credits)**
Groundwater flow to wells, aquifer test analysis, groundwater exploration techniques, application of computer models in groundwater studies, hydrogeologic field methods, contaminant hydrogeology, vadoze zone hydrology. Lecture and laboratory. Prerequisites: GEOL 3211 or consent of instructor. May not be offered every year.

**GEOL 3400 Glacial and Pleistocene Geology (3 credits)**
Modern concepts of glaciology and glacial geology. Interpretation of the phenomena and effects on the landscape. Lecture and laboratory. Prerequisite: GEOL 1110.

**GEOL 3500 Topics in Paleontology (3 credits)**
Introduction to major groups of organisms that are commonly preserved as fossils. Focus of class may vary between offerings; including invertebrate and vertebrate paleontology, introductory micropaleontology, palynology and pollen analysis. May be repeated as topics change. Lecture and laboratory. Prerequisite: GEOL 1120. (May not be offered every year.)

**GEOL 3600 Stratigraphy and Sedimentation (3 credits)**
Study of sedimentary rocks. Recognition of the physical and biologic factors affecting deposition. Introduction to stratigraphic principles. Lecture and laboratory. Prerequisites: GEOL 1110, GEOL 1120, and GEOL 2110 (Might not be offered every year.)

**GEOL 3700 Environmental Geophysics (3 credits)**
Introduction to geophysical processes and geophysical field methods commonly used in environmental evaluation. Interdisciplinary approach to an understanding of the physical environment. Lecture and laboratory. (Might not be offered every year.)

**GEOL 4910 Directed Independent Study (3 credits)**
Arranged individual study.

**GEOL 4970 Internship (3 credits)**
Graded Satisfactory/Unsatisfactory only. Student internships may be either full-time or part-time in a public or private agency appropriate to the degree objective. Internships consist of closely supervised periods of service that are arranged in advance of the course registration. Students should consult their advisor concerning prerequisites.

**GEOL 4980 Research (3 credits)**
Research carried out by the student that is based on appropriate methodology and scholarship.

## All-University Courses

The course numbers listed below, not always included in the semester class schedule, may be registered for by consent of the advisor, instructor, or department chair, or may be assigned by the department when warranted. Individual registration requires previous arrangement by the student and the completion of any required form or planning outline as well as any prerequisites.

1910, 2910, 3910, 4910 DIRECTED INDEPENDENT STUDY
1920, 2920, 3920, 4920 DIRECTED GROUP STUDY
1930, 2930, 3930, 4930 EXPERIMENTAL COURSE
1940, 2940, 3940, 4940 IN-SERVICE COURSE
1950, 2950, 3950, 4950 WORKSHOP, INSTITUTE, TOUR
1960, 2960, 3960, 4960 SPECIAL PURPOSE INSTRUCTION
1970, 2970, 3970, 4970 INTERNSHIP
1980, 2980, 3980, 4980 RESEARCH
1990, 2990, 3990, 4990 THESIS

# Health

The vision of the Department of Human Performance, Sport, and Health is "preparing and empowering future professionals to promote physical activity, health, and sport."

The mission of the Department of Human Performance, Sport, and Health is to provide students with experiences to develop leadership, communication, and technological skills for learning, for citizenship, and for work. Our programs foster an appreciation of the contributions of physical activity, wellness, and sport to society.

Health is an ever-changing condition of well-being. It is influenced by intellectual, occupational, social, emotional, physical and spiritual factors. Health education combines learning experiences in all of these areas to encourage and facilitate the development of healthy behaviors and lifestyles.

Students majoring in health prepare to teach others about healthy living. The program in teacher licensure, leading to State of Minnesota teaching certification, and the Community Health program both offer an academic foundation, professional preparation, student teaching/internship experiences, and a learning environment conducive to personal application of health goals.

Both programs also provide sound academic preparation for entry into health-related master's degree programs. Graduate study is recommended for students pursuing careers beyond entry-level positions.

**Programs**

- Community Health, B.S. *major*
- Health Education. B.S. ((Teacher Licensure))*major*
- Health Promotion and Education Minor *minor*
- Red Cross Community First Aid Certification *cert*
- Red Cross First Aid Responder Certification *cert*

**Career Directions**

Community Health Service
Community Teacher
Education
Primary and Secondary School Teaching
Private and Public Health Agencies
University/College Health Centers
Also: Graduate Study

**Preparation**

Recommended High School Courses

Biology
Chemistry
First Aid
Health
Psychology
Sociology

## Community Health, B.S. *major*

Required Credits: 61
Required GPA: 2.25

**I REQUIRED COURSES**

COMPLETE THE FOLLOWING COURSES:

- BIOL 1110 Human Biology (4 credits)
- BIOL 2110 Human Anatomy and Physiology (5 credits)
- HLTH 2100 First Aid and CPR/AED (1 credit)
- HLTH 3150 Theoretical and Ethical Foundations of Health (3 credits)
- HLTH 3200 Personal and Consumer Health (3 credits)
- HLTH 3300 Nutrition (3 credits)
- HLTH 3500 Community Health (3 credits)
- HLTH 3710 Disease Prevention and Epidemiology (3 credits)
- HLTH 4410 Health Programming (3 credits)
- PHED 3300 Physiology of Exercise and Nutrition (3 credits)
- PHED 4309 Legal Aspects of Sport, Health, and Fitness (3 credits)
- PSY 3401 Basic Statistics for Research (4 credits)
  *or* STAT 3660 Statistics for the Health Sciences (3 credits)

COMPLETE THE FOLLOWING COURSE:

- HLTH 3970 Internship: Practicum in Health (1-3 credits)

COMPLETE THE FOLLOWING COURSE:

- HLTH 4920 Directed Group Study: Health Seminar (1 credit)

COMPLETE 10-12 CREDITS OF THE FOLLOWING COURSE:

- HLTH 4970 Internship (1-12 credits)

**II ELECTIVES**

SELECT 12 CREDITS FROM THE FOLLOWING COURSES:

- BIOL 1300 Medical Terminology (2 credits)
- HLTH 2800 Multicultural Health in America (2 credits)
- HLTH 3400 Health and Drugs in Society (2 credits)
- INST 1107 Introduction to Turtle Island (3 credits)
  (or other INST prefix courses up to 6 credits)
- PHED 1240 Skills for Life: Techniques of Neuromuscular Relaxation (1 credit)
- PHED 2200 A Lifestyle for Wellness (2 credits)
- PHED 4160 Advanced Fitness Assessment & Prescription-Aerobic (3 credits)
- PHED 4170 Advanced Principles for Strength and Speed Training Exercise (3 credits)
- PSY 2200 Human Sexuality (3 credits)
- PSY 3387 Topics in Psychology (1-4 credits)

UP TO 6 CREDITS OF NURSING COURSES ACCEPTED; NOTE THAT MOST NRSG COURSES ARE FOR NURSING MAJORS ONLY

**SUGGESTED SEMESTER SCHEDULE FOR COMMUNITY HEALTH MAJOR, B.S.**

The following is a list of required Community Health Major, B.S. courses arranged by year. This schedule is intended to help students plan their courses in an orderly fashion; however, these are only suggestions and this schedule is flexible.

Freshman
- BIOL 1110 Human Biology (4 credits)
- HLTH 2100 First Aid and CPR/AED (1 credit)
- Liberal Education requirements

Sophomore
- BIOL 2110 Human Anatomy and Physiology (5 credits)
- HLTH 3150 Theoretical and Ethical Foundations of Health (3 credits)
- HLTH 3200 Personal and Consumer Health (3 credits)
- Complete Liberal Education requirements

Junior
- HLTH 3300 Nutrition (3 credits)
- HLTH 3500 Community Health (3 credits)
- HLTH 3710 Disease Prevention and Epidemiology (3 credits)
- HLTH 3970 Internship: Practicum in Health (1-3 credits)
- PHED 3300 Physiology of Exercise and Nutrition (3 credits)
- PSY 3401 Basic Statistics for Research (4 credits)
  or STAT 3660 Statistics for the Health Sciences (3 credits)
- Major Electives

Senior
- HLTH 4410 Health Programming (3 credits)
- HLTH 4920 Directed Group Study: Health Seminar (1 credit)
- PHED 4309 Legal Aspects of Sport, Health, and Fitness (3 credits)
- HLTH 4970 Internship (1-12 credits)
- Major Electives

## Health Education. B.S. *major* (Teacher Licensure)

Required Credits: 71
Required GPA: 2.50

**I REQUIRED COURSES**

COMPLETE THE FOLLOWING COURSES:
NOTE: HLTH 3400 IS INCLUDED IN THE REQUIRED PROFESSIONAL EDUCATION COURSES BELOW.

- BIOL 1110 Human Biology (4 credits)
- BIOL 2110 Human Anatomy and Physiology (5 credits)
- HLTH 2100 First Aid and CPR/AED (1 credit)
- HLTH 3150 Theoretical and Ethical Foundations of Health (3 credits)
- HLTH 3200 Personal and Consumer Health (3 credits)
- HLTH 3300 Nutrition (3 credits)
- HLTH 3500 Community Health (3 credits)
- HLTH 3710 Disease Prevention and Epidemiology (3 credits)
- HLTH 4206 Secondary School Health (2 credits)
- HLTH 4410 Health Programming (3 credits)
- PHED 3300 Physiology of Exercise and Nutrition (3 credits)
- PHED 4309 Legal Aspects of Sport, Health, and Fitness (3 credits)

COMPLETE THE FOLLOWING COURSE:

- HLTH 4920 Directed Group Study: Health Seminar (1 credit)

COMPLETE THE FOLLOWING COURSE:

- HLTH 4970: Practicum in Health Teaching

**REQUIRED PROFESSIONAL EDUCATION COURSES**

COMPLETE THE FOLLOWING COURSES:

- ED 3100 Introduction to the Foundations of Public School Education (3 credits)
- ED 3110 Educational Psychology (3 credits)
- ED 3140 Human Relations In Education (3 credits)
- ED 3350 Pedagogy: Planning for Instruction (3 credits)
- ED 3780 Adaptation and Management: Designing the Learning Environment (3 credits)
- ED 4737 Content Area Reading (3 credits)
- ED 4799 The Professional Teacher (1 credit)
- HLTH 3400 Health and Drugs in Society (2 credits)

Complete 12 credits of student teaching:

- ED 4830 Student Teaching - Secondary (1-12 credits)

**SUGGESTED SEMESTER SCHEDULE FOR HEALTH EDUCATION MAJOR, B.S. (TEACHER LICENSURE)**

The following is a list of required Health Education Major, B.S. courses arranged by year. This schedule is intended to help students plan their courses in an orderly fashion; however, these are only suggestions and this schedule is flexible.
Freshman
- BIOL 1110 Human Biology (4 credits)
- HLTH 2100 First Aid and CPR/AED (1 credit)
- Liberal Education requirements

Sophomore
- BIOL 2110 Human Anatomy and Physiology (5 credits)
- HLTH 3150 Theoretical and Ethical Foundations of Health (3 credits)
- HLTH 3200 Personal and Consumer Health (3 credits)
- Complete Liberal Education requirements
- Take the Minnesota Teacher Licensure Exam (MTLE) Basic Skills test

Junior
- Begin Professional Education Standards of Effective Practice (SEP) courses
- HLTH 3300 Nutrition (3 credits)
- PHED 3300 Physiology of Exercise and Nutrition (3 credits)
- HLTH 3500 Community Health (3 credits)
- HLTH 3710 Disease Prevention and Epidemiology (3 credits)
- HLTH 4206 Secondary School Health (2 credits)
- HLTH 4970 Internship (1-12 credits)

Senior
- HLTH 4410 Health Programming (3 credits)
- HLTH 4920 Directed Group Study: Health Seminar (1 credit)
- PHED 4309 Legal Aspects of Sport, Health, and Fitness (3 credits)
- Complete Professional Education Standards of Effective Practice (SEP) courses
- Student teaching

## Health Promotion and Education Minor *minor*

Multiple Credentials
Any additional major, minor or certificate in a degree must have at least 6 credits of course work not used to meet the requirements of another major, minor or certificate in the degree.

Required Credits: 21
Required GPA: 2.00

**I REQUIRED COURSES**

COMPLETE THE FOLLOWING COURSES:

- HLTH 3150 Theoretical and Ethical Foundations of Health (3 credits)
- HLTH 3200 Personal and Consumer Health (3 credits)
- HLTH 3300 Nutrition (3 credits)
- HLTH 3500 Community Health (3 credits)
- HLTH 3710 Disease Prevention and Epidemiology (3 credits)
- HLTH 4410 Health Programming (3 credits)

**II REQUIRED OPTION**

Select one of the following options (Community Health and Health Education majors may not double count courses in either option).

**Option A: Promotion**

Select 3 of the following courses:

- HLTH 2800 Multicultural Health in America (2 credits)
- HLTH 3400 Health and Drugs in Society (2 credits)
- PHED 1240 Skills for Life: Techniques of Neuromuscular Relaxation (1 credit)
- PHED 2200 A Lifestyle for Wellness (2 credits)
- PHED 3300 Physiology of Exercise and Nutrition (3 credits)
- PHED 4160 Advanced Fitness Assessment & Prescription-Aerobic (3 credits)
- PHED 4170 Advanced Principles for Strength and Speed Training Exercise (3 credits)
- PSY 2200 Human Sexuality (3 credits)
- PSY 2217 Abnormal Psychology (4 credits)
- PSY 3237 Lifespan Development (4 credits)
- PSY 3367 Social Psychology (3 credits)
- PSY 3387 Topics in Psychology (1-4 credits)
- INST 1107 or other INST courses up to 6 credits total in consultation with advisor.

Up to 6 credits of NRSG accepted; note that most NRSG courses are for Nursing majors only.

**Option B: Pedagogy**

Complete the following courses:

- HLTH 4206 Secondary School Health (2 credits)
- HLTH 4970 Internship (1-12 credits)

## Red Cross Community First Aid Certification *cert*

**REQUIRED COURSE**

- HLTH 2100 First Aid and CPR/AED (1 credit)
  *or* HLTH 2200 First Aid and CPR/AED Instructor (1 credit)

## Red Cross First Aid Responder Certification *cert*

**REQUIRED COURSE**

- HLTH 3600 Emergency Response (3 credits)

## Health Courses

**HLTH 2100 First Aid and CPR/AED (1 credit)**
An introduction to emergency action principles, first aid, and CPR/AED (automated external defibrillation) for lay responders. American Red Cross Adult, Child and Infant CPR (1-year), Adult and Child AED (1-year), and First Aid (3-year) certificates may be earned. Recommended as a basic course for professional educators.

**HLTH 2200 First Aid and CPR/AED Instructor (1 credit)**
Designed to prepare First Aid and CPR/AED students to become instructors for Lay Responder First Aid and CPR/AED. American Red Cross Instructors Certificate may be earned. Recommended as an advanced course for professional educators. Law enforcement personnel are also encouraged to consider the course. Prerequisite: HLTH 2100 or equivalent.

**HLTH 2800 Multicultural Health in America (2 credits)**
Examines the health issues and problems faced by ethnic minority populations in America, specifically by African Americans, American Indians, Hispanic Americans, and Americans of Asian and Pacific Island descent. Since a disproportionate number of health problems confront these minority groups, this course (a) examines specific health problems, (b) evaluates what is known and unknown about these specific problems, and (c) re-evaluates the current health care system in America to resolve these special problems in health care delivery. Liberal Education Goal Area 7.

**HLTH 2925 People and the Environment: A Health Perspective (3 credits)**
This course builds upon the principles discussed in the large group, focusing greater attention on health issues related to the environment, including the food supply, water quality, air quality, and other environmental health risks. These are discussed in the context of common diseases such as cancers, asthma, communicable diseases, and other health problems associated with the environment. Liberal Education Goal Area 10.

**HLTH 3150 Theoretical and Ethical Foundations of Health (3 credits)**
Provides entry level health education and community health students with the theoretical and ethical foundations of health. Also examines health's history, philosophy, settings, literature, and credentialing.

**HLTH 3200 Personal and Consumer Health (3 credits)**
A comprehensive study of personal health identifying ill-advised health behaviors and recommending strategies for positive behavioral change. From an opportunity cost perspective, personal health care options, products and services in the marketplace will be examined. Opportunities to network with local, state and federal consumer health agencies will be provided. Prerequisite or Co-requisite: For Community Health and Health Education majors and Health Promotion and Education minors: HLTH 3150; Non-majors/minor may select this class with consent of instructor.

**HLTH 3300 Nutrition (3 credits)**
Fundamentals of food utilization in the body and diet planning including discussion of the relationship between dietary habits and disease. Also included are discussions of current trends in nutrition, dietary changes for special conditions such as pregnancy, infancy, teenagers, aging, athletes, and cultural differences in dietary practices.

**HLTH 3400 Health and Drugs in Society (2 credits)**
A study of chemical use and abuse as related to personal and community health. Various drugs and drug-taking behaviors will be defined and discussed. Historical, cultural, educational, and legal perspectives will be examined. Multi-faceted prevention and rehabilitation strategies promoting wellness will be discussed.

**HLTH 3500 Community Health (3 credits)**
Comprehensive study of the community health challenges confronting the citizenry of the United States of America. Examines the roles of federal, state, and local governments, as well as private agencies, in individual and aggregate health care. Provides opportunities for community health networking. Prerequisites: For health majors/minors: HLTH 3150 and HLTH 3200; For non-majors/minors: Consent of instructor.

**HLTH 3600 Emergency Response (3 credits)**
Designed to provide advanced students the knowledge, skills and training to administer initial first aid in emergencies. American Red Cross advanced certificate may be earned. Ideal course for law enforcement personnel, athletic trainers, and juvenile officers. Prerequisite: HLTH 2100 or equivalent.

**HLTH 3710 Disease Prevention and Epidemiology (3 credits)**
An introduction to disease prevention, pathophysiology, and treatment of the most common communicable and chronic diseases in human populations. Focuses on the history and principles of disease occurrence in the context of environment and lifestyle choice. Students specifically examine risk factor management and the epidemiological data supporting the influence of physical activity in chronic disease prevention and management. Additionally, learners gain an introductory knowledge of epidemiology and biostatistics enabling them to successfully critique the scientific and educational literature. Prerequisites: For Community Health and Health Education majors: BIOL 1110, HLTH 3150, HLTH 3200, and HLTH 3500; For non-majors and the Health Promotion and Education minor: Consent of instructor.

**HLTH 3970 Internship: Practicum in Health (1-3 credits)**
When taken as Practicum in Health the following description applies: Community health majors will gain a 30-90 hour experience in a local health facility in preparation for the application of previous course work. Prerequisites: HLTH 3150 and HLTH 3200.

**HLTH 4100 Teaching Elementary School Health (2 credits)**
An integrated approach to the organization, content, goals, objectives, curriculum, methods and techniques of teaching health at the elementary level. Coordinating services and establishing collaboration will be incorporated. Elementary school state and national guidelines and mandates will be discussed. Teaching opportunities will be provided. Prerequisite: entrance into the teacher education program.

**HLTH 4206 Secondary School Health (2 credits)**
An integrated approach to the organization, content, goals, objectives, curriculum, methods, and techniques of teaching health at the secondary school level. Incorporates coordinating services and establishing collaboration. Secondary school state and national guidelines and mandates are discussed. Prerequisite: Entrance into the teacher education program or consent of instructor.

**HLTH 4410 Health Programming (3 credits)**
A comprehensive study of the process of identifying health problems, establishing health programming, and promoting, implementing, and evaluating the program. Also examines vision and mission statements, along with goals, objectives, timetables, and interpretation of results. This course parallels CHES criteria and utilizes a local community health organization to integrate student involvement. Prerequisites: For health majors/minors: HLTH 3150, HLTH 3200, HLTH 3500, HLTH 3710; For non-majors/minors: Consent of instructor.

**HLTH 4920 Directed Group Study: Health Seminar (1 credit)**
When taken as Health Seminar the following description applies: Intended as a capstone course to prepare the health major for employment, internship/job procurement, or continuing education in a graduate program. This course integrates discussion of strategies for professional development, as well as providing quality written composition on employment/graduate program goals and objectives. Prerequisite: Senior status or consent of instructor.

**HLTH 4970 Internship (1-12 credits)**
When taken for the Community Health major the following description applies: Students will gain field experience in a health related facility relevant to specific career goals. Opportunities will exist for the student to apply the different concepts and theories from course work directly in the work setting through observation, planning, decision-making, committee participation, leadership, operation management, and individual and group projects. Required: A minimum of 30 practicum hours per credit. Prerequisite: completion of all health course work and degree requirements. When taken as the Secondary Health Teaching Practicum, the following description applies: A 30-hour practicum in which students have the opportunity to teach health lessons, assist health teachers deliver health instruction, observe health teachers deliver health instruction, read to students, listen to students read, tutor students, and perform other duties as required by the BOT Standards and requested by the health teacher. Prerequisite: Entrance into the teacher education program or consent of instructor.

## All-University Courses

The course numbers listed below, not always included in the semester class schedule, may be registered for by consent of the advisor, instructor, or department chair, or may be assigned by the department when warranted. Individual registration requires previous arrangement by the student and the completion of any required form or planning outline as well as any prerequisites.

1910, 2910, 3910, 4910 DIRECTED INDEPENDENT STUDY
1920, 2920, 3920, 4920 DIRECTED GROUP STUDY
1930, 2930, 3930, 4930 EXPERIMENTAL COURSE
1940, 2940, 3940, 4940 IN-SERVICE COURSE
1950, 2950, 3950, 4950 WORKSHOP, INSTITUTE, TOUR
1960, 2960, 3960, 4960 SPECIAL PURPOSE INSTRUCTION
1970, 2970, 3970, 4970 INTERNSHIP
1980, 2980, 3980, 4980 RESEARCH
1990, 2990, 3990, 4990 THESIS

# History

History is the record of past events, including the stories of societies and individual people whose acts, whether noble, common, or foolish, altered the way people lived. Historians study and analyze history in order to appreciate and understand the past, to bring perspective to the present, and to plan for the future.

The History curriculum includes historical foundation courses in World and American history, and addresses national and international topics and issues through specialized courses from the ancient and medieval world to the present. Course offerings include a variety of courses in social, intellectual, and political history.

History majors are encouraged to study a second language and to travel and study either domestically or abroad. A bachelor's degree in history is excellent preparation for graduate study or further professional study (law, medicine, business, or seminary).

**Note:** The State of Minnesota does not grant a separate license for teaching history at the secondary level. Students wishing to teach history in secondary schools should complete the Social Studies major, B.S., teacher licensure and may choose a minor or a second major in History.

**Programs**

- History, B.A. *major*
- History, B.S. *major*
- Social Studies, B.A. (History Emphasis)*major*
- History Minor, B.A. or B.S. *minor*

**Career Directions**

Archivist
Government Service
Historian
Historical Society Consultant/Director
Intelligence Data Analyst
International Service Officer
Journalist/Editor
Law, Medicine, and Other Professions
Legislative Researcher
Library Science
Museum Curator
Teacher
Also: Graduate Study

**Preparation**

*Recommended High School Courses*
Economics
English/Literature
Geography
Government
History
Psychology

## History, B.A. *major*

Required Credits: 40
Required GPA: 2.25

**I REQUIRED COURSES**

COMPLETE THREE OF THE FOLLOWING COURSES:

- HST 1114 United States History I, to 1877 (3 credits)
- HST 1115 United States History II, since 1877 (3 credits)
- HST 1304 World History I, Prehistory-1500 (3 credits)
- HST 1305 World History II, 1500-Present (3 credits)

COMPLETE ONE OF THE FOLLOWING COURSES:

- HST 2800 Reacting to the Past (3 credits)
- HOPR 1104 The Unity and Diversity of Knowledge (2 credits)

COMPLETE ONE OF THE FOLLOWING COURSES:

- HST 4600 History Portfolio (1 credit)
- HST 4783 Senior Thesis in History (3 credits)

**II REQUIRED ELECTIVES**

A. AMERICAN/UNITED STATES
SELECT 1 OF THE FOLLOWING COURSES:

- HST 2667 Men and Women: Gender in America (3 credits)
- HST 3117 American Revolutionary Era, 1763-1800 (3 credits)
- HST 3128 Testing Democracy: Reform in Nineteenth-Century America (3 credits)
- HST 3137 Civil War and Reconstruction, 1844-1877 (3 credits)
- HST 3159 The World at War, 1931-1945 (3 credits)
- HST 3187 American West (3 credits)

B. EUROPEAN
SELECT 1 OF THE FOLLOWING COURSES:

- HST 2218 Medieval Europe (3 credits)
- HST 2228 Renaissance and Reformation Europe (3 credits)
- HST 3208 Greece and Rome, 1500 BCE-500 CE (3 credits)
- HST 3258 The Roman Civil Law Tradition (3 credits)
- HST 3268 The Roman Revolution, 200 BCE-CE 14 (3 credits)

C. NON-WESTERN
SELECT 1 OF THE FOLLOWING COURSES:

- HST 2700 The History of World Religions (3 credits)
- HST 3409 Colonialism and Modernization in the Non-Western World (3 credits)
- HST 3419 East Asia (3 credits)
- HST 3429 South and Southeast Asia (3 credits)
- HST 3449 Middle East (3 credits)
- HST 3459 Latin America (3 credits)

**III OTHER REQUIRED ELECTIVES**

SELECT 16-19 SEMESTER CREDITS OF HISTORY COURSES NUMBERED AT THE 2000 LEVEL OR ABOVE.

RELEVANT COURSES IN ALLIED DISCIPLINES LISTED BELOW

MAY BE INCLUDED WITH THE CONSENT OF THE DEPARTMENT CHAIR (UP TO 6 CREDITS)

- ENGL 2340 The American Film (3 credits)
- ENGL 2350 American Literature, to 1865 (3 credits)
- ENGL 2355 American Literature, 1865 to Present (3 credits)
- ENGL 2357 British and World Drama (3 credits)
- ENGL 2358 British and World Poetry (3 credits)
- ENGL 2359 British and World Prose (3 credits)
- HUM 3107 Topics in Cultural Studies (1-4 credits)
- INST 2201 Creation to Contact (3 credits)
- INST 2202 Survivance Since Contact (3 credits)
- INST 3307 Ojibwe History (3 credits)
- PHIL 3310 Ancient and Medieval Philosophy (3 credits)
- PHIL 3320 Modern Philosophy (3 credits)
- PHIL 3330 Nineteenth Century Philosophy (3 credits)
- PHIL 3340 Twentieth-Century Philosophy (3 credits)
- POL 4200 Constitutional Law (3 credits)
- PSY 4487 History and Systems of Psychology (3 credits)
- SPAN 4418 Medieval and Golden Age Literature (3 credits)
- SPAN 4426 Latin American Culture and Civilization (3 credits)
- SPAN 4427 Spanish Culture and Civilization (3 credits)

**SUGGESTED SEMESTER SCHEDULE FOR HISTORY MAJOR, B.A. OR B.S.**

The following is a list of required history courses arranged by year. This schedule is intended to help you take your courses in an orderly fashion and complete your major in four years. These are only suggestions. The program is flexible, and you have some choice as to when to take certain courses.

Freshman
- HST 1305 World History II, 1500-Present (3 credits)
- HST 2800 Reacting to the Past (3 credits)
- Liberal Education requirements
- Courses of interest

Sophomore
- HST 1304 World History I, Prehistory-1500 (3 credits)
- HST 1115 United States History II, since 1877 (3 credits)
- Liberal Education requirements
- Courses of interest

Junior
- Complete II. Required Electives: A,B,C
- Liberal Education requirements
- [Professional-Education courses for B.S. (Teacher Licensure) students]

Senior
- HST 4600 History Portfolio (1 credit)
  or HST 4783 Senior Thesis in History (3 credits)
- History electives numbered above 2200
- Complete Liberal Education requirements
- [Complete Professional-Education courses for B.S. (Teacher Licensure) students]

## History, B.S. *major*

Required Credits: 40
Required GPA: 2.25

**I REQUIRED COURSES**

COMPLETE THREE OF THE FOLLOWING COURSES:

- HST 1114 United States History I, to 1877 (3 credits)
- HST 1115 United States History II, since 1877 (3 credits)
- HST 1304 World History I, Prehistory-1500 (3 credits)
- HST 1305 World History II, 1500-Present (3 credits)

COMPLETE ONE OF THE FOLLOWING COURSES:

- HST 2800 Reacting to the Past (3 credits)
- HOPR 1104 The Unity and Diversity of Knowledge (2 credits)

COMPLETE ONE OF THE FOLLOWING COURSES:

- HST 4600 History Portfolio (1 credit)
- HST 4783 Senior Thesis in History (3 credits)

**II REQUIRED ELECTIVES**

A. AMERICAN/UNITED STATES
SELECT 1 OF THE FOLLOWING COURSES:

- HST 2667 Men and Women: Gender in America (3 credits)
- HST 3117 American Revolutionary Era, 1763-1800 (3 credits)
- HST 3128 Testing Democracy: Reform in Nineteenth-Century America (3 credits)
- HST 3137 Civil War and Reconstruction, 1844-1877 (3 credits)
- HST 3159 The World at War, 1931-1945 (3 credits)
- HST 3187 American West (3 credits)

B. EUROPEAN
SELECT 1 OF THE FOLLOWING COURSES:

- HST 2218 Medieval Europe (3 credits)
- HST 2228 Renaissance and Reformation Europe (3 credits)
- HST 3208 Greece and Rome, 1500 BCE-500 CE (3 credits)
- HST 3258 The Roman Civil Law Tradition (3 credits)
- HST 3268 The Roman Revolution, 200 BCE-CE 14 (3 credits)

C. NON-WESTERN
SELECT 1 OF THE FOLLOWING COURSES:

- HST 2700 The History of World Religions (3 credits)
- HST 3409 Colonialism and Modernization in the Non-Western World (3 credits)
- HST 3419 East Asia (3 credits)
- HST 3429 South and Southeast Asia (3 credits)
- HST 3449 Middle East (3 credits)
- HST 3459 Latin America (3 credits)

**III OTHER REQUIRED ELECTIVES**

SELECT 16-19 SEMESTER CREDITS OF HISTORY COURSES NUMBERED AT THE 2000 LEVEL OR ABOVE.

RELEVANT COURSES IN ALLIED DISCIPLINES LISTED BELOW MAY BE INCLUDED WITH THE CONSENT OF THE DEPARTMENT CHAIR (UP TO 6 CREDITS)

- ENGL 2340 The American Film (3 credits)
- ENGL 2350 American Literature, to 1865 (3 credits)
- ENGL 2355 American Literature, 1865 to Present (3 credits)
- ENGL 2357 British and World Drama (3 credits)
- ENGL 2358 British and World Poetry (3 credits)

- ENGL 2359 British and World Prose (3 credits)
- HUM 3107 Topics in Cultural Studies (1-4 credits)
- INST 2201 Creation to Contact (3 credits)
- INST 2202 Survivance Since Contact (3 credits)
- INST 3307 Ojibwe History (3 credits)
- PHIL 3310 Ancient and Medieval Philosophy (3 credits)
- PHIL 3320 Modern Philosophy (3 credits)
- PHIL 3330 Nineteenth Century Philosophy (3 credits)
- PHIL 3340 Twentieth-Century Philosophy (3 credits)
- POL 4200 Constitutional Law (3 credits)
- PSY 4487 History and Systems of Psychology (3 credits)
- SPAN 4418 Medieval and Golden Age Literature (3 credits)
- SPAN 4426 Latin American Culture and Civilization (3 credits)
- SPAN 4427 Spanish Culture and Civilization (3 credits)

**SUGGESTED SEMESTER SCHEDULE FOR HISTORY MAJOR, B.A. OR B.S.**

The following is a list of required history courses arranged by year. This schedule is intended to help you take your courses in an orderly fashion and complete your major in four years. These are only suggestions. The program is flexible, and you have some choice as to when to take certain courses.

Freshman
- HST 1305 World History II, 1500-Present (3 credits)
- HST 2800 Reacting to the Past (3 credits)
- Liberal Education requirements
- Courses of interest

Sophomore
- HST 1304 World History I, Prehistory-1500 (3 credits)
- HST 1115 United States History II, since 1877 (3 credits)
- Liberal Education requirements
- Courses of interest

Junior
- Complete II. Required Electives: A,B,C
- Liberal Education requirements
- [Professional-Education courses for B.S. (Teacher Licensure) students]

Senior
- HST 4600 History Portfolio (1 credit)
  or HST 4783 Senior Thesis in History (3 credits)
- History electives numbered above 2200
- Complete Liberal Education requirements
- [Complete Professional-Education courses for B.S. (Teacher Licensure) students]

## Social Studies, B.A. *major*
## History Emphasis

**Note:** A minimum of 22 semester credits used to meet course requirements in I and II must be completed at Bemidji State University. No course grade below a C may be used to meet these requirements and a minimum GPA of 2.50 in this major is required for graduation. Students who desire a second field of emphasis are to consider completion a minor or a second major in that field. Such action may complement and increase the marketability of this major.

Required Credits: 48
Required GPA: 2.50

**I REQUIRED CORE CURRICULUM**

CAPSTONE COURSE
COMPLETE THE FOLLOWING COURSE:

- POL 4500 Thesis and Career Preparation (3 credits)

ECONOMICS COURSES
SELECT 1 OF THE FOLLOWING COURSES:

- ECON 2000 Markets and Resource Allocation (3 credits)
- ECON 2100 Macroeconomics and the Business Cycle (3 credits)

GEOGRAPHY COURSES
SELECT 1 OF THE FOLLOWING COURSES

- GEOG 2100 Introduction to Physical Geography (3 credits)
- GEOG 2200 Introduction to Human Geography (3 credits)

GEOGRAPHY COURSES
SELECT 1 OF THE FOLLOWING COURSES:

- GEOG 3410 Geography of North America (3 credits)
- GEOG 3800 Regional Geography (1-3 credits)
- GEOG 3810 Geography of Europe (3 credits)
- GEOG 3820 Geography of East, South, and Southeast Asia (3 credits)
- GEOG 3840 Geography of Africa (3 credits)

UPPER DIVISION WORLD HISTORY
SELECT 1 OF THE FOLLOWING COURSES

- HST 2218 Medieval Europe (3 credits)
- HST 2228 Renaissance and Reformation Europe (3 credits)
- HST 2580 Russia (3 credits)
- HST 2600 Topics in History (3 credits)
- HST 2660 Women and History (3 credits)
- HST 2700 The History of World Religions (3 credits)
- HST 2800 Reacting to the Past (3 credits)
- HST 3159 The World at War, 1931-1945 (3 credits)
- HST 3208 Greece and Rome, 1500 BCE-500 CE (3 credits)
- HST 3258 The Roman Civil Law Tradition (3 credits)
- HST 3268 The Roman Revolution, 200 BCE-CE 14 (3 credits)
- HST 3277 Readings and Research in European History (3 credits)
- HST 3409 Colonialism and Modernization in the Non-Western World (3 credits)
- HST 3419 East Asia (3 credits)
- HST 3429 South and Southeast Asia (3 credits)
- HST 3449 Middle East (3 credits)
- HST 3459 Latin America (3 credits)

UPPER DIVISION U.S. HISTORY
SELECT 1 OF THE FOLLOWING COURSES

- HST 2600 Topics in History (3 credits)
- HST 2610 Minnesota History (3 credits)
- HST 2640 United States Diplomatic History (3 credits)
- HST 2667 Men and Women: Gender in America (3 credits)
- HST 2800 Reacting to the Past (3 credits)
- HST 3117 American Revolutionary Era, 1763-1800 (3 credits)
- HST 3128 Testing Democracy: Reform in Nineteenth-Century America (3 credits)
- HST 3137 Civil War and Reconstruction, 1844-1877 (3 credits)
- HST 3159 The World at War, 1931-1945 (3 credits)
- HST 3187 American West (3 credits)

POLITICAL SCIENCE COURSES

SELECT 1 OF THE FOLLOWING COURSES

- POL 1200 Introduction to American Politics (3 credits)
- POL 1300 Introduction to International Relations (3 credits)
- POL 1400 Introduction to Comparative Politics (3 credits)

POLITICAL SCIENCE COURSES
SELECT 1 OF THE FOLLOWING COURSES

- POL 3100 American Foreign Policy (3 credits)
- POL 3130 Asian Political Development (3 credits)
- POL 3150 Topics in Political Science (1-3 credits)
- POL 3160 Comparative European Politics (3 credits)
- POL 3170 International Relations (3 credits)
- POL 3180 International Law and Organization (3 credits)
- POL 3190 International Political Economy (3 credits)
- POL 3200 Minnesota Politics (3 credits)
- POL 3210 Public Administration (3 credits)
- POL 3230 Environmental Politics (3 credits)
- POL 3410 Legislative and Executive Relations (3 credits)
- POL 3420 Campaigns and Elections (3 credits)
- POL 4200 Constitutional Law (3 credits)

SOCIOLOGY COURSES
COMPLETE THE FOLLOWING COURSES:

- SOC 2200 Social Movements and Change (3 credits)
- SOC 3010 Social Theory (3 credits)

**II REQUIRED FIELD OF EMPHASIS**

SELECT 18 SEMESTER CREDITS OF ELECTIVES FROM HISTORY

## History Minor, B.A. or B.S. *minor*

Required Credits: 24.0
Required GPA: 2.00

**I REQUIRED COURSES**

COMPLETE ONE OF THE FOLLOWING COURSES:

- HST 2800 Reacting to the Past (3 credits)
- HOPR 1104 The Unity and Diversity of Knowledge (2 credits)

COMPLETE THREE OF THE FOLLOWING COURSES:

- HST 1114 United States History I, to 1877 (3 credits)
- HST 1115 United States History II, since 1877 (3 credits)
- HST 1304 World History I, Prehistory-1500 (3 credits)
- HST 1305 World History II, 1500-Present (3 credits)

**II REQUIRED ELECTIVES**

Select 9 semester credits of History courses at the 2000 level or above.

Relevant courses in allied disciplines may be included with consent of department chair.

The electives must include at least 1 course in United States history and 1 course in an area other than United States history.

## History Courses

**HST 1114 United States History I, to 1877 (3 credits)**
A survey of American/United States history from the ealiest period to 1877, including cultures in pre-contact America; the interaction of American, African, and European peoples during exploration and colonization; development of new blended cultures; growth of unfree labor; role of war in early America; founding of a new nation; early attempts to construct a national identity; and growth of cultural tensions leading to the Civil War and Reconstruction. Includes discussions of the increasingly diverse make up of the American population (male and female) and emphasizes the development of analytical skills focusing on reading, oral presentation, and writing. Liberal Education Goal Areas 5 & 7.

**HST 1115 United States History II, since 1877 (3 credits)**
A survey of United States history since Reconstruction, including social, economic, and cultural changes of the Gilded Age; Populism and Progressivism; internationalism and imperialism; 1920s Normalcy; 1929 Crash and 1930s Depression; New Deal; Cold War; conservative renaissance, Fair Deal; New Frontier and Great Society; and contemporary society and conditions. Includes discussions of the increasingly diverse make up of the American population (male and female) and emphasizes the development of analytical skills focusing on reading, oral presentation, and writing. Liberal Education Goal Areas 5 & 7.

**HST 1304 World History I, Prehistory-1500 (3 credits)**
A global and cross-cultural study of the early period of world history, including ancient civilizations and empires, classical China, India, Greece, and Rome, interaction of civilizations, influence of Buddhism, Christianity, and Islam as world religions, the Arab world and culture, Medieval Europe, African and American pre-contact cultures and civilizations. Liberal Education Goal Areas 5 & 8.

**HST 1305 World History II, 1500-Present (3 credits)**
A global and cross-cultural study of the modern period of world history, including the major cultural/continental areas which existed in 1500, the influence of European expansionism and colonialism, interaction of nations and peoples, reform and change in religious patterns, the French Revolution and Napoleon, the development and spread of the Industrial Revolution, Marxism and Communism, global rearrangements of the twentieth century, decline of European colonialism, and contemporary conditions. Liberal Education Goal Areas 5 & 8.

**HST 2218 Medieval Europe (3 credits)**
Survey of political and intellectual history in Europe from the collapse of Roman power in Western Europe to the fifteenth century. Topics include the rise and growth of the Christian Church and the Papal Monarchy; the Byzantine Empire; the Frankish Kingdom; the Investiture Contest; the Crusades; the twelfth-century Renaissance; the emergence of secular, regional monarchies; representative institutions; and the panoramic crises.

**HST 2228 Renaissance and Reformation Europe (3 credits)**
Survey of European history from ca. 1400 to 1648 with emphasis on the rise of humanist culture; the growth of stronger "national" governments in England, France, Spain, and Italy; the disintegration of Christian unity and the emergence of rival Christian churches; the emergence of the mercantile, pre-capitalist economic system, and the intensification of conflict made possible by greater resources and religious rivalries. (Might not be offered every year.)

**HST 2580 Russia (3 credits)**
Survey of the development of the Russian peoples and nation, from the principality of Kiev through the rise and dominance of Muscovy, to the revolution of 1917 and the establishment of the Soviet Union, the collapse of the Soviet Communist federation, to the present, with stress upon political, dynastic, economic, social, and cultural patterns. Liberal Education Goal Area 8.

**HST 2600 Topics in History (3 credits)**
Study of a specific historical topic or development, person, or time period, with the specific title being announced in each semester's class schedule.

**HST 2610 Minnesota History (3 credits)**
An introductory survey of the Minnesota area over time--its environments, its people, and its cultures. Liberal Education Goal Areas 5 & 7.

**HST 2640 United States Diplomatic History (3 credits)**
Consideration of the development of United States diplomacy and foreign policy, from the early new nation to the present, including initial national recognition, involvement in the Napoleonic Wars, Manifest Destiny and the Monroe Doctrine, isolationism, involvement in international wars, imperialism, relations with the developing world, the Cold War, and contemporary patterns. (Might not be offered every year.)

**HST 2660 Women and History (3 credits)**
Introductory survey of the role of women in history, approached thematically and topically. Based on the feminist critique of history, a cross-cultural approach emphasizes a comparative critique and evaluation of women in various historical contexts. Liberal Education Goal Areas 5 & 8.

**HST 2667 Men and Women: Gender in America (3 credits)**
This course seeks a close-up view of American culture from the colonial era to the modem era through the stories of individuals. In order to better understand these stories, the class first develops an interpretive framework using gender as the central theme. All individuals are shaped by the conventions of gender in any given time period. Those expectations change over time, and students will explore those changes and how individuals respond to them. Individuals are looked at in a variety of historical settings, including urban areas, the frontier, and a variety of middle landscapes. (Might not be offered every year.)

**HST 2700 The History of World Religions (3 credits)**
A historical survey of Hinduism, Buddhism, Jainism, Confucianism, Taoism, Shinto, Judaism, Christianity, and Islam, from their origins to the present. Liberal Education Goal Areas 5 & 8.

**HST 2800 Reacting to the Past (3 credits)**
Consists of elaborate games, set in the past, in which students are assigned "roles" with "victory objectives" informed by classic texts in the history of ideas. Class sessions are run entirely by students; instructors advise and guide students and grade their oral and written work. Liberal Education Goal Areas 9 and 11.

**HST 2810 Introduction to Public History (3 credits)**
Introduction to several aspects of public history, including archival management, site surveys, oral history, document editing, inventory, and web sites. Includes practical hands-on experiences at area public history sites. (Might not be offered every year.)

**HST 2925 People and the Environment: Environment and History (3 credits)**
An examination of past interactions between human society and the natural world in what is now the United States. Issues to be discussed in the course include Native American resource management; the ecological effects of the arrival of Europeans, Africans, and Asians in North America; resource exploitation in the industrial era; the preservationist and conservationist movements; and the historical roots of current environmental problems. Liberal Education Goal Area 10.

**HST 2953 Study-Travel, History and the Social and Behavioral Sciences (1-6 credits)**
Study Travel course in History for Lib Ed Goal Area 5.

**HST 3117 American Revolutionary Era, 1763-1800 (3 credits)**
Consideration of the redefinition of the British Empire following the Great War for Empire in 1763, the rise and development of colonial rebel opposition, evolution of political philosophy and ideology culminating in the 1776 Declaration of Independence, the war for independence, the new nation under the Articles of Confederation, the writing and ratification of the new 1787 Constitution, and the contribution of the Federalists during the 1790s. (Might not be offered every year.)

**HST 3128 Testing Democracy: Reform in Nineteenth-Century America (3 credits)**
Nineteenth-century Americans repeatedly examined and interpreted the ideals of the Revolution. Periodically, as grass roots movements tried to expand the benefits that founding fathers originally guaranteed for elite white males, powerful reform movements arose that challenged established authorities, compelling them to either accommodate popular demands or coerce a restoration of the status quo. This course investigates the resulting clashes that characterized reform efforts throughout the century, including those centered on anti-slavery, women's suffrage, temperance, labor, and a host of other causes. (Might not be offered every year.)

**HST 3137 Civil War and Reconstruction, 1844-1877 (3 credits)**
Consideration of the development of national sectionalism beginning in the 1840s, the influence of Manifest Destiny and frontier expansionism, the growth of southern nationalism, the focus issues of states' rights and slavery, southern secession and establishment of the Confederate States of America, military and economic dimensions of the war, and restoration of the Union or reconstruction of the south. (Might not be offered every year.)

**HST 3159 The World at War, 1931-1945 (3 credits)**
This course covers the history of global war and its consequences. Beginning with the development of fascist and totalitarian states in Europe, nationalism in Asia, and the impact of economic depression, the course follows the war by considering issues on the home front and battlefield, debates over strategy and diplomacy, and decisions leading to the Holocaust and the development of atomic weaponry. (Might not be offered every year.)

**HST 3187 American West (3 credits)**
The American West is both an idea and a place, and although it is difficult to define, it is central to an understanding of how Americans see themselves and are viewed by people around the world. This course focuses on the trans-Mississippi West, but recognizes these are imposed boundaries and that the region is shaped by decisions and policies imposed by Easterners. This study moves across time, examining the lives and cultures of the earliest peoples, the effects of immigrants who competed for land and resources, and the legacy of this westward experience for modem society. The West, too, is real and imagined, and the course will consider its impact on American popular culture.

**HST 3208 Greece and Rome, 1500 BCE-500 CE (3 credits)**
Survey of Ancient Greek and Roman civilization to the Fifth Century CE. Emphasizes political, intellectual, and cultural issues. (Might not be offered every year.) Liberal Education Goal Area(s) 5 & 8.

**HST 3258 The Roman Civil Law Tradition (3 credits)**
Study of the Roman Civil Law Tradition as it developed from Antiquity through the Middle Ages, the Early-Modern period and on into the nineteenth century. Prerequisites: Sophomore status and successful completion of at least 6 credits of History (HST) courses, or consent of instructor.

**HST 3268 The Roman Revolution, 200 BCE-CE 14 (3 credits)**
Explores the failure of the Roman Republic and its transformation into a more autocratic system. This course is conducted on the basis of students' reports on various "classic" problems and historians' interpretations of the problems charting the path .from the Gracchan Reforms of 133-122 BCE to the end of the reign of Augustus Caesar in CE 14. Prerequisite: HST 1304 or HST 2208 or consent of instructor. (Might not be offered every year.)

**HST 3277 Readings and Research in European History (3 credits)**
This is a junior/senior-level topics course on European history. The unifying principle of the course is that students are required to participate in a colloquium format in which they present, analyze, and discuss various readings over the semester and that they produce a research paper of 4000+ words on some specific aspect of the course subject. Prerequisite: HST 1304 or HST 2208 or HST 2218 or HST 2228 or HST 2510 or HST 2520 or consent of instructor. (Might not be offered every year.)

**HST 3409 Colonialism and Modernization in the Non-Western World (3 credits)**
A survey of African, Asian, Latin American, and Middle Eastern civilizations featuring the impacts of modernization introduced through colonialism on the traditional societies of these civilizations. Liberal Education Goal Areas 5 & 8.

**HST 3419 East Asia (3 credits)**
Political, economic, social, and cultural institutions of Chinese, Japanese, Korean, and Vietnamese civilizations, from the ancient period to the present. Special consideration will be given to the spread of Chinese civilization and culture as the basis of East Asian "Confucian" cultures. Liberal Education Goal Areas 5 & 8. (Might not be offered every year.

**HST 3429 South and Southeast Asia (3 credits)**
Historical, political, social, economic, and cultural developments from ancient civilizations to contemporary nations, including the influence of European colonial activities, including India, Pakistan, Bangladesh, Burma, Vietnam, Laos, Thailand, Kampuchea, Malaysia, Singapore, Indonesia, and Philippines. (Might not be offered every year.)

**HST 3449 Middle East (3 credits)**
Introductory survey of selected themes and problems in the historical, economic, social, and cultural development of the Middle East. Consideration will be given to Egypt, Jordan, Israel, Syria, Lebanon, Iraq, Turkey, Iran, and adjacent areas, including both the Arab and non-Arab dimensions. (Might not be offered every year.)

**HST 3459 Latin America (3 credits)**
Introductory survey of selected themes and problems in the historical, economic, social, and cultural development of Latin America. (Might not be offered every year.)

**HST 4600 History Portfolio (1 credit)**
Students will prepare and submit portfolios of their graded assignments from History-courses demonstrating achievement of Learning Outcomes to fulfill requirements for the B.A./B.S. in History. Prerequisite(s): Senior Status and successful completion of at least 26 credits of courses that will count towards the 40 credits required for the B.A./B.S. in History.

**HST 4783 Senior Thesis in History (3 credits)**
Working with a faculty advisor, students complete research and write a scholarly thesis, then polish and present it in a public venue approved by the department. For students who produce, present, and have such a thesis accepted by the Department, the requirement to present a portfolio of graded assignments for the B.A./B.S. will be waived. Prerequisite(s): Senior Status and successful completion of at least 31 credits of courses counting toward the History B.A./B.S.

### All-University Courses

The course numbers listed below, not always included in the semester class schedule, may be registered for by consent of the advisor, instructor, or department chair, or may be assigned by the department when warranted. Individual registration requires previous arrangement by the student and the completion of any required form or planning outline as well as any prerequisites.

1910, 2910, 3910, 4910 DIRECTED INDEPENDENT STUDY
1920, 2920, 3920, 4920 DIRECTED GROUP STUDY
1930, 2930, 3930, 4930 EXPERIMENTAL COURSE
1940, 2940, 3940, 4940 IN-SERVICE COURSE
1950, 2950, 3950, 4950 WORKSHOP, INSTITUTE, TOUR
1960, 2960, 3960, 4960 SPECIAL PURPOSE INSTRUCTION
1970, 2970, 3970, 4970 INTERNSHIP
1980, 2980, 3980, 4980 RESEARCH
1990, 2990, 3990, 4990 THESIS

## Art History Courses

**ARTH 2551 Art History Survey I (4 credits)**
An overview of the art and architecture of world cultures from pre-historic times to ca. 1400 C.E. (i.e., through the late Middle Ages in Europe). Liberal Education Goal Areas 6 & 8

**ARTH 2552 Art History Survey II (4 credits)**
The art and architecture of world cultures from ca 1400 C.E. to the present (i.e., from the Renaissance and Baroque eras in Europe onward). Prerequisite: ARTH 2551 or consent of instructor. Liberal Education Goal Areas 6 & 8

**ARTH 2557 History Of Photography (3 credits)**
The major aesthetic and technical trends in photography from 1839 to the present. Prerequisite: VSAR 2552 or consent of instructor. Might not be offered every year.

**ARTH 2559 Seminar in Art History (2 credits)**
An introduction to the current methods and interpretive approaches of the discipline of Art History. Taught in combination with VSAR 2552, and intended for students with a special interest in Art History (minors, concentrations, and allied majors). Prerequisite: Consent of instructor. Corequisite: VSAR 2552. (May not be offered every year)

**ARTH 2953 Study Travel History and the Social and Behavioral Sciences (1-6 credits)**
Study Travel course in History and the Social and Behavioral Sciences for Lib Ed Goal Area 5

**ARTH 3550 Nineteenth Century Visual Culture (4 credits)**
An advanced level survey of developments in the visual arts and wider material culture in Europe and America between 1775 and 1900. Prerequisite: VSAR 2552. Might not be offered every year.

**ARTH 3557 Twentieth Century Art (4 credits)**
An advanced level survey of significant movements in European and American art between 1900 and 1970. Prerequisite: VSAR 2552. Might not be offered every year.

**ARTH 3566 Art in the Ancient Americas (4 credits)**
An advanced level survey of the art and architecture of Mesoamerica, the Andean region and selected other cultural areas from earliest times to the European encounter. Prerequisite: VSAR 2551 or consent of instructor. (May not be offered every year)

**ARTH 3567 Contemporary Art: Theory, Practice And Criticism (4 credits)**
Advanced level study of recent discourse in the visual arts, including post-modern theory, significant movements and artists, and critical/interpretive writing. Prerequisite: VSAR 2552.

**ARTH 4550 Studies in Art History (2 credits)**
A close examination of selected period, national tradition, or movement in the history of visual arts. See instructor for current subject area. May be repeated. Prerequisite: Consent of instructor. Might not be offered every year.

**ARTH 4808 Special Readings (2 credits)**
Reading assignments related to historical research. Prerequisite: Consent of instructor.

### All-University Courses

The course numbers listed below, not always included in the semester class schedule, may be registered for by consent of the advisor, instructor, or department chair, or may be assigned by the department when warranted. Individual registration requires previous arrangement by the student and the completion of any required form or planning outline as well as any prerequisites.

1910, 2910, 3910, 4910 DIRECTED INDEPENDENT STUDY
1920, 2920, 3920, 4920 DIRECTED GROUP STUDY
1930, 2930, 3930, 4930 EXPERIMENTAL COURSE

1940, 2940, 3940, 4940 IN-SERVICE COURSE
1950, 2950, 3950, 4950 WORKSHOP, INSTITUTE, TOUR
1960, 2960, 3960, 4960 SPECIAL PURPOSE INSTRUCTION
1970, 2970, 3970, 4970 INTERNSHIP
1980, 2980, 3980, 4980 RESEARCH
1990, 2990, 3990, 4990 THESIS

# Honors Program

The Honors Program does not offer a major, a minor, or a degree. Successful completion of the Honors requirements is noted on students' permanent transcripts. Honors graduates are given special recognition at commencement and wear the Honors stole with their academic robes.

Some University students have the ability and desire to engage in academic challenges that extend beyond the Liberal Education requirements and their own majors. In the Honors Program, these students take interdisciplinary Honors courses in lieu of Liberal Education offerings and engage in an Honors thesis or project. As members of the Honors community, they collaborate with a faculty advisor and the Honors Council to plan their studies and to manage the responsibilities that correspond with the program's freedoms.

**Eligibility**

High school seniors with superior academic records or college students with a cumulative grade point average of 3.25 or above are invited to apply. A concise letter stating reasons for interest in becoming a member of the Honors Program should be included with the application form. Such letters should be addressed to the Director, Honors Program, Bemidji State University. Students enrolled at Bemidji State University may personally consult the Director for information.

The quota of Honors Scholars admitted each academic year is determined by the number of qualified applications received. Students are appointed to the program on a competitive basis by the Honors Council. Applicants are notified in writing of their selection as Honors Scholars.

**Career Directions**

Business/LeadershipGovernment Service/LeadershipLawMedicine
Also: Graduate Study

## Honors Program Courses

**HOPR 1104 The Unity and Diversity of Knowledge (2 credits)**
Introductory study of concepts, methods and goals characteristic of the pursuit of knowledge. Required of all honors scholars.

**HOPR 1105 Influence, Power, and Values (2 credits)**
Introduction to influence and power in relation to considerations of human values. A service component is required. Required of all honors scholars.

**HOPR 2106 Studies in Literature and the Arts (2 credits)**
Study of the role played by literature and the arts in interpreting and expressing human experience and in constructing, throughout history, changing views of the nature of civilization. Required of all honors scholars.

**HOPR 2107 Studies in the Social Sciences and History (2 credits)**
Study of concepts common to the disciplines of the social sciences and history, with emphasis on current topics or problems. Required of all honors scholars.

**HOPR 3899 Pre-Thesis Seminar (1 credit)**
Each student chooses an Honors thesis topic, arranges to work with an advisor, develops a bibliography, and writes a proposal. Proposals are reviewed for approval by the Honors Council. Must be taken during the junior year.

**HOPR 4889 Integrative Seminar (2 credits)**
Readings, discussions, and student presentations involving study and articulation of relationships between disciplines. Required of all honors scholars in their senior year. Prerequisites: HOPR 1104, HOPR 1105, HOPR 2106, and HOPR 2107.

**HOPR 4890 Honors Thesis Or Project (3 credits)**
The honors thesis must be undertaken no later than the junior year, and requires the student to identify a faculty sponsor, design a plan of study or research project, and receive tentative approval from the Director of the Honors Program prior to undertaking the project. At the completion of the project the honors scholar will present the finished study to a committee representing the Honors Council which will offer approval, requests for improvement, or rejection. For further information, contact the Director of the Honors Program. Required of all honors scholars.

**HOPR 4899 Honors Thesis (2 credits)**
Working individually with a thesis advisor, the student carries out and completes the Honors thesis. The thesis may be scholarly (based on empirical or archival research or on literary criticism whose end product is a documented paper or report) or creative (consisting of original work created by the student and presented in written form or in performance, and accompanied by a written artist's statement). Prerequisite: HOPR 3899.

### All-University Courses

The course numbers listed below, not always included in the semester class schedule, may be registered for by consent of the advisor, instructor, or department chair, or may be assigned by the department when warranted. Individual registration requires previous arrangement by the student and the completion of any required form or planning outline as well as any prerequisites.

1910, 2910, 3910, 4910 DIRECTED INDEPENDENT STUDY
1920, 2920, 3920, 4920 DIRECTED GROUP STUDY

1930, 2930, 3930, 4930 EXPERIMENTAL COURSE
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# Humanities

The family of disciplines known as the humanities explores the diversity of human experience through the study of cultural forms and expressions in particular social or historical contexts. These forms are diverse in themselves, ranging from literary works to historical documents, philosophical constructs to visual artifacts, religious practices to musical and dramatic performances. These often require the special approaches of their particular discipline. At the same time, the humanities disciplines are complementary and collaborative, sharing common goals, methods, and understandings.

The Humanities Program at Bemidji State is dedicated to collaboration. Within a flexible structure, it brings together courses from all the allied disciplines, as well as interdisciplinary courses of its own. Its objectives are threefold: 1) to provide multiple frames of reference for analysis and interpretation; 2) to foster increased awareness of the unique character of each of the humanities disciplines, together with an understanding of interrelationships among visual art, music, language, literature, and history; 3) to promote, through the cultivation of curiosity and multicultural sensibilities, the breadth of learning necessary for successful careers in government, business, or the professions.

**Programs**

- Humanities, B.A. *major*
- Humanities *minor*

**Career Directions**

See "Note" in program description.

**Preparation**

*Recommended High School Courses*

Art
Humanities
Literature
Philosophy

## Humanities, B.A. *major*

Required Credits: 39
Required GPA: 2.25

**I REQUIRED INTRODUCTION**

COMPLETE 1 OF THE FOLLOWING COURSES:

- HUM 1100 Human Culture and Ideas (3 credits)
  *or* HUM 2107 Themes in Cultural History (3 credits)

**II DIRECTED ELECTIVES**

A. SECOND LANGUAGES
Complete a one year course sequence in one of the following languages: Ojibwe, Spanish or any current offering (excluding ASL) transfer courses from accredited programs are also encouraged (6-8 credits)
OR
A cluster of advanced expository (not creative) writing courses at the 2000-4000 level (excluding ENGL 2152) for a total of 6 credits.

B. PHILOSOPHY
Complete any PHIL course at the 2000 or 3000 level.

C. HISTORICAL STUDIES
Complete any HST course at the 2000 or 3000 level.

D. LITERARY STUDIES
Complete any literature course offered in English, or Modern Languages at the 2000-4000 level.

E. FINE AND PERFORMING ARTS
Complete any practice-based Art/Design, Creative Writing or Music course at the 1000-3000 level. Transfer courses from accredited programs are also encouraged.

**III INDIVIDUAL OPTIONS**

SELECT ONE OF THE OPTIONS BELOW
Note: Courses used to fulfill the Required Introduction or Directed Electives may not also be counted toward Individual Options courses.

A. EXPLORATION OPTION
Select an additional course at the 3000 or 4000 level in each area B.-E. above for a total of 15 credits.

B. HUMANITIES DISCIPLINE OPTION
Select with the consent of advisor 15 credits of course work at the 3000 or 4000 level. Course work may be selected from one of the folowing programs:
Art History, English, History, Humanities, Modern Languages, Music, Philosophy, or Threatre.

C. AREA STUDIES OPTION
In close consultation with the advisor, select 12 credits of course work at the 3000 or 4000 level in several disciplines all germane to a particular culture of regional geographic area.

**IV CAPSTONE EXPERIENCE**

SELECT 1 OF THE FOLLOWING COURSES:

- HUM 4920 Directed Group Study (3 credits)
- HUM 4990 Thesis (3 credits)

**SUGGESTED SEMESTER SCHEDULE FOR HUMANITIES MAJOR, B.A.**

Courses may not be offered every year. Watch semester class schedules and take required courses as soon as possible.

## Humanities *minor*

Required Credits: 21
Required GPA: 2.00

**I REQUIRED COURSES**

SELECT 1 OF THE FOLLOWING COURSES:

- HUM 1100 Human Culture and Ideas (3 credits)
- HUM 2107

**II DIRECTED ELECTIVES**

A. SECOND LANGUAGES
Complete a one year course sequence in one of the following languages: Ojibwe, Spanish, or any current offering (excluding ASL) Transfer courses from accredited programs are also encouraged (6-8 credits)
OR
A cluster of advanced expository (not creative) writing

B. PHILOSOPHY
Complete any PHIL course at the 2000 or 3000 level.

C. HISTORICAL STUDIES
Complete any HST or ARTH course at the 2000 or 3000 level.

D. LITERARY STUDIES
Complete any literature course offered in English, Modern Languages, or Theatre at the 3000 or 4000 level.

E. FINE AND PERFORMING ARTS
Complete any practice-based Art/Design, Creative Writing or Music course at the 1000-3000 level. Transfer courses in Theater from accredited programs are also encouraged.

## Humanities Courses

**HUM 1100 Human Culture and Ideas (3 credits)**
An examination of the different forms of cultural expression in diverse societies, and contemporary approaches to their contextual study and interpretation. Liberal Education Goal Areas 6 & 8.

**HUM 2107 Themes in Cultural History (3 credits)**
Study of a particular theme or central human issue in a variety of historical settings through the close analysis of various cultural documents and practices. May be repeated under distinct subtitles. (Might not be offered every year.)

**HUM 2150 Hawaiian Monarchy and the Hawaiian Sovereignty Movement: Field Projects (1-3 credits)**
Topics exploring the roots of the modern Hawaiian Sovereignty Movement as founded upon two major elements: the history of the Hawaiian Monarchy, and the traditional notion of Native Hawaiian lands. Aspects of Native Hawaiian culture as underpinnings for the governance of Hawaii pre-1893 and for the modern disputes about governance and land arrangements. Aspects of Native Hawaiian culture and the Hawaiian Monarchy as they project into the various social movements advocating for Hawaiian Sovereignty today. Liberal Education Goal Areas 5 & 7.

**HUM 2160 Polynesian and Native Hawaiian Culture: Hawaii Field Projects (1-3 credits)**
Polynesian and Native Hawaiian culture and the renaissance of pride and practice in these cultures in Hawaii and the Pacific Island region. Aspects of culture, religion, and traditional practices that are part of this cultural renaissance, particularly art, music, and values. Relation of this deepening sense of cultural identity to the growing influence of Polynesians and Native Hawaiians in global and U.S. affairs. Evaluation of the importance of and methods for sustaining indigenous cultures into the future. Liberal Education Goal Areas 6 & 8.

**HUM 3107 Topics in Cultural Studies (1-4 credits)**
Interdisciplinary study of a particular historical or contemporary culture. Contact the Humanities Coordinator for current or expected topic areas. May be repeated under distinct subtitles. Prerequisite: Consent of instructor. (Might not be offered every year.)

**HUM 4920 Directed Group Study (3 credits)**
When taken as Senior Seminar the following description may apply: An integrative seminar involving readings, discussions, and student presentations centering on the study and articulation of relationships between disciplines. A problem, event, movement or concept will be used as the focus of the course. Designed for senior year.

**HUM 4990 Thesis (3 credits)**
A thesis written by the student that reports extensive original research carried out by the student and demonstrates appropriate methodology and scholarship.

### All-University Courses

The course numbers listed below, not always included in the semester class schedule, may be registered for by consent of the advisor, instructor, or department chair, or may be assigned by the department when warranted. Individual registration requires previous arrangement by the student and the completion of any required form or planning outline as well as any prerequisites.

1910, 2910, 3910, 4910 DIRECTED INDEPENDENT STUDY
1920, 2920, 3920, 4920 DIRECTED GROUP STUDY
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# Indigenous Native Nations

Since time immemorial, American Indians have occupied the Upper Great Lakes area, including what is now known as the State of Minnesota. Tribes and Indian peoples currently residing on reservations and in rural and urban areas include Ojibwe, Dakota (Sioux), Menominee, Pottowatomie, Sac and Fox, Winnebago, Ottawa, Oneida, and members of other North American tribes.

The Indigenous Native Nations program is open to all students. It offers Ojibwe and other Indian students an academic area of study relevant to the diversity of their cultural heritage. It offers Indian and other students a better understanding and appreciation of the diversity of Indian history, language, and culture.

The Indigenous Native Nations major is designed to provide a cultural, political, and historical background for a companion major in a skills area (applied study major).

The Department of Languages and Ethnic Studies offers a minor in Ojibwe. Campus services available to Indian students include the American Indian Resource Center, the Council of Indian Students, Native Americans into Medicine, and an American Indian Science and Education Society chapter.

**Programs**

- Indigenous Native Nations, B.A. *major*
- Indigenous Native Nations *minor*

**Career Directions**

Education
Law Enforcement
Social Services
Tribal Government
Also: Graduate Study

## Indigenous Native Nations, B.A. *major*

Required Credits: 47
Required GPA: 2.25

**I REQUIRED COURSES**

COMPLETE THE FOLLOWING COURSES:

- INST 1107 Introduction to Turtle Island (3 credits)
- INST 1202 Indigenous Environmental Current Events (3 credits)
- INST 2201 Creation to Contact (3 credits)
- INST 2202 Survivance Since Contact (3 credits)
- INST 3307 Ojibwe History (3 credits)
  *or* OJIB 1100 Ojibwe Culture (4 credits)
- INST 3810 Indigenous Research and Theory (3 credits)
- INST 3890 Genealogy and Clan Systems (3 credits)
- INST 4007 Spiritual Lifeways (3 credits)
- INST 4900 Social Justice (3 credits)
- INST 4908 Indigenous Research and Writing (3 credits)
- OJIB 1111 Elementary Ojibwe I (4 credits)
- OJIB 1112 Elementary Ojibwe II (4 credits)

**II REQUIRED GUIDED ELECTIVES**

SELECT A MINIMUM OF 9-12 CREDITS FROM THE FOLLOWING COURSES:
A MINIMUM OF 6 SEMESTER CREDITS MUST BE AT THE 3000 OR 4000 LEVEL.

- INST 3170 Indigenous Education (3 credits)
- INST 3210 Reclaiming Turtle Island (3 credits)
- INST 3317 Tribal Government and Leadership (3 credits)
- INST 3410 Advanced Ojibwe Crafts (1-4 credits)
- INST 3568 Celebrating Indigenous Art (3 credits)
- INST 3888 Indigenous Women Writers (3 credits)
- INST 4000 Nation Building and Leadership (3 credits)
- INST 4207 Indigenous Philosophy (3 credits)
- INST 4418 Federal Indian Law (3 credits)
- SOWK 3780 Family And Child Welfare (3 credits)

ADDITIONAL COURSES:

- INST 2207 Aboriginal Peoples in Canada (3 credits)
- INST 2410 Ojibwe Crafts (2 credits)
- INST 2810 Anishinaabe Place Names (3 credits)

**Suggested Semester Schedule for Indigenous Native Nations major, B.A.**

Freshman

- INST 1107 Introduction to Turtle Island (3 credits)
- INST 1202 Indigenous Environmental Current Events (3 credits)
- OJIB 1111 Elementary Ojibwe I (4 credits)
- OJIB 1112 Elementary Ojibwe II (4 credits)
- Electives

Sophomore

- INST 2201 Creation to Contact (3 credits)
- INST 2202 Survivance Since Contact (3 credits)
- Electives

Junior

- INST 3307 Ojibwe History (3 credits)
- INST 3810 Indigenous Research and Theory (3 credits)
- INST 3890 Genealogy and Clan Systems (3 credits)
- Electives

Senior

- INST 4007 Spiritual Lifeways (3 credits)
- INST 4900 Social Justice (3 credits)
- INST 4908 Indigenous Research and Writing (3 credits)
- Electives

## Indigenous Native Nations *minor*

Required Credits: 20
Required GPA: 2.00

**I REQUIRED COURSES**

COMPLETE THE FOLLOWING COURSES:

- INST 1107 Introduction to Turtle Island (3 credits)
- INST 2201 Creation to Contact (3 credits)
- INST 2202 Survivance Since Contact (3 credits)
- INST 2410 Ojibwe Crafts (2 credits)
- INST 3307 Ojibwe History (3 credits)

**II REQUIRED ELECTIVES**

SELECT AT LEAST 6 CREDITS FROM THE FOLLOWING COURSES:

- INST 1202 Indigenous Environmental Current Events (3 credits)
- INST 2207 Aboriginal Peoples in Canada (3 credits)
- INST 2810 Anishinaabe Place Names (3 credits)
- INST 3170 Indigenous Education (3 credits)
- INST 3210 Reclaiming Turtle Island (3 credits)
- INST 3317 Tribal Government and Leadership (3 credits)
- INST 3410 Advanced Ojibwe Crafts (1-4 credits)
- INST 3568 Celebrating Indigenous Art (3 credits)
- INST 3888 Indigenous Women Writers (3 credits)
- INST 3890 Genealogy and Clan Systems (3 credits)
- INST 4418 Federal Indian Law (3 credits)

## Indigenous Studies Courses

**INST 1107 Introduction to Turtle Island (3 credits)**
This course is designed to provide students with an introduction to the study of American Indians from a cultural and academic perspective. The academic overview will include considerations of breadth, method of research, terminology, and principles of various disciplines that include American Indians in their fields of study. Liberal Education Goal Areas 5 & 7.

**INST 1202 Indigenous Environmental Current Events (3 credits)**
This course is designed to provide students with the abilities to read and view various media sources critically. An in-depth focus on how current events have the potential to shape our lives requires "reading between the lines". Students will have the opportunity to identify the audience of various current event articles and the purpose of the articles, journalist and producer. Liberal Education Goal Area 5.

**INST 2201 Creation to Contact (3 credits)**
This course is designed to provide students with a literary experience and understanding of the philosophical and mythological mindset of individual and tribal people in the Americas. And in later times, empathize with the racism and challenges that American Indian cultures had in regard to the social, economic, political, and religious policies and practices of European and American societies in the United States. Liberal Education Goal Areas 5 & 7.

**INST 2202 Survivance Since Contact (3 credits)**
This course is designed to follow American Indians Post-contact 1887 by providing to students a literary experience and understanding of the philosophical and mythological mindset of individual and tribal people in the Americas. And in current times, empathize with the racism and challenges that American Indian cultures face in regard to the social, economic, political, and religious policies and practices of European and American societies in the United States. Liberal Education Goal Areas 5 & 7.

**INST 2207 Aboriginal Peoples in Canada (3 credits)**
This course provides an overview of the history, contemporary concerns, and contributions of Aboriginal Peoples in Canada. The term Aboriginal includes First Nations, Metis, Inuit, status and non-status Indians, and is inclusive of those Aboriginals living on and off reserve. Liberal Education Goal Areas 5 & 8.

**INST 2410 Ojibwe Crafts (2 credits)**
An introduction to the Ojibwe crafts in relation to their culture. Demonstration, instruction and studio experience in basketmaking, hide tanning, the making of leather goods, beading, jewelry making and quilting.

**INST 2810 Anishinaabe Place Names (3 credits)**
The course provided an opportunity for students to learn the Anishinaabe place names throughout Anishinaabe territory in the area of the Great Lakes (Minnesota, Wisconsin, Michigan, Manitoba, Ontario, and Quebec). Through place name research students will explore Anishinaabeg (plural) history, culture and worldview. Liberal Education Goal Areas 5 & 7.

**INST 3170 Indigenous Education (3 credits)**
Inquiry and analysis of the complexities of multiple standards of education in the U. S. including race class, gender, ethnicity, disability, age, nationality and religion, how they shape and are shaped by social and cultural tribal and non-tribal life in the United States will be examined. The course emphasizes the development of indigenous knowledge, critical thinking, analytical skills, and interpersonal and inter group interactions necessary for living and working in a society characterized by tribal and western mainstream diversity. Through the mindful study of small, rural schools and traditional education practices students will find a greater understanding of (tribal) others, develop self-understanding of education in the U.S. and develop understanding in relation to others- in order to promote ethical behaviors and values in education that support a diverse world. Liberal Education Goal Areas 5 & 7.

**INST 3210 Reclaiming Turtle Island (3 credits)**
This course will provide students with a philosophical understanding of Indigenous peoples relationships to their environment (land, water, rural, and urban) that are based on traditional teachings. These relationships will be explored through the accounts of migrations, land acquisition, loss, recovery, and protection. Liberal Education Goal Areas 5 & 8.

**INST 3307 Ojibwe History (3 credits)**
The oral and written history of the People from origins to the early 20th century, analyzing the Ojibwe response to changes brought by European and American society. Liberal Education Goal Areas 5 & 7.

**INST 3317 Tribal Government and Leadership (3 credits)**
This course is designed to provide students with a deeper understanding of traditional, transitional, and contemporary tribal governments based on the experiences of the Anishinaabe (Ojibwe) in Minnesota and other tribes. Liberal Education Goal Areas 5 & 8.

**INST 3410 Advanced Ojibwe Crafts (1-4 credits)**
Advanced study of American Indian craft media techniques and concepts geared to meet the needs of individual students and to help them develop personal direction. May be repeated for a total of 6 credits. Prerequisite: INST/VSAR 2410.

**INST 3568 Celebrating Indigenous Art (3 credits)**
Survey of American Indian Art by culture area, i.e., Northwest Coast, Plains, Sub-Arctic. Includes not only the arts and crafts of each indigenous area, but a brief consideration of the culture producing them. (Might not be offered every year.)

**INST 3810 Indigenous Research and Theory (3 credits)**
This course introduces student to the importance of Indigenous Research, its purposes, theories and methods. This course provides the theoretical foundation for the students senior thesis and hones their acquired research and report writing skills. Prerequisite: Instructor permission.

**INST 3888 Indigenous Women Writers (3 credits)**
This course is designed to provide students with a deeper understanding of traditional qualities found in contemporary woman writers who describe the experience of native women through the lens of several generations. This work comes to play an important role in contemporary thought as the values and cultures of indigenous people rapidly reflect change in their world and the world around them. Issues that are unique to native women in our contemporary time are paralleled to native women's experiences of the past. Liberal Education Goal Area 6.

**INST 3890 Genealogy and Clan Systems (3 credits)**
This course is designed to provide students with a hands-on experience with individual genealogical research and family tree development. In addition, the genealogical information may be used in conjunction with identifying specific tribal clans that are unique to each individual and their specific tribal history. An academic and cultural overview of how clan systems work is part of the course design. Liberal Education Goal Areas 5 & 7.

**INST 4000 Nation Building and Leadership (3 credits)**
This course provides students with an opportunity to analyze leadership and diverse strategies for Native nation building through the lens of development and sustainability. Prerequisites: INST 1107, and INST 2201 or INST 2202, and INST 3307 or INST 3317, or professor permission.

**INST 4007 Spiritual Lifeways (3 credits)**
This course is designed to provide students with abilities to think critically about the delivery system of outreach services such as social services, churches, schools, death and dying and western medicine. The lack of acknowledgement among the western cultures will focus on historical trauma and its implications. Traditional healings, original teachings, sacred geographies, sacred ecologies and Indigenous (philosophies) life ways will be presented. Prerequisites: Junior or senior standing or by consent of instructor.

**INST 4207 Indigenous Philosophy (3 credits)**
This course is designed to provide students with an understanding and awareness of the native philosophical world views and the interface that occurs among indigenous peoples and western people. Part of this understanding is that of two worlds; one of those worlds is the native world and the other being the western world. At the heart of native existence is the spiritual ecology, natural environments, human geography, identity, Indian activism, Christian and native religious beliefs and contemporary life ways. Prerequisites: Junior or senior standing or by consent of instructor.

**INST 4418 Federal Indian Law (3 credits)**
This course is designed to provide students with an understanding and awareness of the modern complexities of American Indian federal law and policies regarding diverse tribal nations in the U.S. by exploring readings by experts in the field of Federal Indian Law. The multiple shapes and shaping theories of what constitutes the identity of tribal nations and individual Indians and their recognition, limited recognition or lack of recognition in relationship to federal law and policy will be explored. (Might not be offered every year.)

**INST 4900 Social Justice (3 credits)**
This course examines steps that individuals and societies must take to create a more just society. Students will learn how to identify and address unequal power relations, marginalization, and racism and engage in skillful interactions that enable them to maintain their integrity within society. Prerequisite: Junior or senior standing or by consent of instructor.

**INST 4908 Indigenous Research and Writing (3 credits)**
This course builds upon understanding the importance of conducting Indigenous research from an Indigenous perspective. Students will continue developing their research skills and produce a senior thesis. Prerequisite: INST 3810 or professor permission.

**INST 4990 Thesis (3 credits)**
When taken as Senior Thesis in Indian Studies, the following description applies: The course requires students, in a seminar format, to review course materials from their academic program, to gauge their future academic or vocational goals, and to write a significant paper based on their academic and future interests.

## All-University Courses

The course numbers listed below, not always included in the semester class schedule, may be registered for by consent of the advisor, instructor, or department chair, or may be assigned by the department when warranted. Individual registration requires previous arrangement by the student and the completion of any required form or planning outline as well as any prerequisites.

1910, 2910, 3910, 4910 DIRECTED INDEPENDENT STUDY
1920, 2920, 3920, 4920 DIRECTED GROUP STUDY
1930, 2930, 3930, 4930 EXPERIMENTAL COURSE
1940, 2940, 3940, 4940 IN-SERVICE COURSE
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1970, 2970, 3970, 4970 INTERNSHIP
1980, 2980, 3980, 4980 RESEARCH
1990, 2990, 3990, 4990 THESIS

# Individualized Studies

Individualized Studies is a degree program developed by the student in consultation with an advisor from their concentrated area(s) of study. The nature of this degree provides students with the flexibility to design a program of study, based on prior course work in a major and the selection of a sequence of elective courses. Students can choose a program of study that is focused on their specific interests of study and professional goals.

No more than 30 credits from the Individualized Studies degree program may be applied toward a double-major or second degree in the designated disciplines.

Individualized Studies Program Requirements
Students eligible to declare Individualized Studies as their bachelor's degree program of study must have completed a minimum of 72 semester credits.

The degree program requires completion of 44 semester credits in the student's choice of courses from the following disciplines at the 3000-4000 level, and a one-credit capstone course from one of the following disciplines excluding Psychology and Social Work, with a 2.25 minimum GPA. Students may complete a 6-12 credit internship or applicable work experience as a part of the 45 credits required at the 3000-4000 level in the following disciplines excluding Psychology and Social Work.

Accounting
Business Administration
Mass Communication
Technology, Art, and Design
Criminal Justice
Human Performance, Sport, and Health
Professional Education
Psychology
Social Work

Admission to the Program
Upon successful completion of 72 semester credits, students may apply for the B.S. in Individualized Studies degree program.

Following the initial inquiry, students are required to contact the **Advising Success Center** at **advising@bemidjistate.edu** to set up an appointment to discuss the requirements and admission process for this degree program.

Students who have successfully completed 72 semester credits and who have an interest in the Bachelor of Science in Individualized Studies degree program must submit an application through the Advising Success Center. The application must address the following points:

1. A statement of understanding about the freedom of choice associated with this degree;
2. A statement of future plans to use this degree for personal growth, further study, employment, or other purposes;
3. An outline of a projected course of study and date of graduation.

The application is reviewed by the Individualized Studies program admission committee which is made up of the department chairs from the departments of 1) Criminal Justice, 2) Human Performance, Sport, and Health, 3) Professional Education, 4) Psychology, and 5) Social Work in the College of Health Sciences and Human Ecology, or the department chairs from 1) Accounting, 2) Business Administration, 3) Mass Communication, and 4) Technology, Art, and Design from the College of Business, Technology, and Communication.; dependent upon the college in which the majority of the courses of the proposed program are offered. When the application is approved, the student may declare the Individualized Studies degree program.

Individualized Studies Advising Worksheet
The credits for the Individualized Studies major may be distributed in various ways. For example:

- Broad distribution across the two colleges.
- Concentration in various areas of interest, including minors.
- Organization in a formal program of study of one or more major themes, such as critical thinking, career focus, science, and technology.

**Programs**

- Individualized Studies, B.S. *major*

**Career Directions**

Communication
Consulting
Education (private)
Government
Graduate School
Industry
Law
Nonprofit organizations
Professional School
Public Policy
Training

## Individualized Studies, B.S. *major*

**ADMISSION TO THE PROGRAM**

Upon successful completion of 72 semester credits, students may apply for the B.S. in Individualized Studies degree program.

Following the initial inquiry, students are required to contact the Advising Success Center to set up an appointment to discuss the requirements and admission process for this degree program. For information on the steps all students in the B.S. in Individualized Studies degree program must complete, please click on this link (Individualized Studies Degree Program Process).

Students who have successfully completed 72 semester credits and who have an interest in the Bachelor of Science in Individualized Studies degree program must submit an application through the Advising Success Center. The application must address the following points:

1. A statement of understanding about the freedom of choice associated with this degree;
2. A statement of future plans to use this degree for personal growth, further study, employment, or other purposes;
3. An outline of a projected course of study and date of graduation.

The application is reviewed by the Individualized Studies program admission committee which is made up of the department chairs from the departments of 1) Criminal Justice, 2) Human Performance, Sport, and Health, 3) Professional Education, 4) Psychology, and 5) Social Work in the College of Health Sciences and Human Ecology, or the department chairs from 1) Accounting, 2) Business Administration, 3) Mass Communication, and 4) Technology, Art, and Design from the College of Business, Technology, and Communication.; dependent upon the college in which the majority of the courses of the proposed program are offered. When the application is approved, the student may declare the Individualized Studies degree program.

Individualized Studies Advising Worksheet
The credits for the Individualized Studies major may be distributed in various ways. For example:

- Broad distribution across the two colleges.
- Concentration in various areas of interest, including minors.
- Organization in a formal program of study of one or more major themes, such as critical thinking, career focus, science, and technology.

Required Credits: 45
Required GPA: 2.25

**REQUIREMENTS FOR THE INDIVIDUALIZED STUDIES MAJOR**

The degree program requires completion of 44 semester credits in the student's choice of courses from the following disciplines at the 3000-4000 level, and a one credit capstone course from one of the following disciplines excluding Psychology and Social Work, with a 2.25 minimum GPA.

Students may complete a 6-12 credit internship or applicable work experience as a part of the 45 credits required at the 3000-4000 level in the following disciplines excluding Psychology and Social Work.

Accounting
Business Administration
Mass Communication
Technology, Art and Design
Criminal Justice
Human Performance, Sport and Health
Professional Education
Psychology
Social Work

Students eligible to declare Individualized Studies as their bachelor's degree program of study must have completed a minimum of 72 semester credits.

**SUGGESTED SEMESTER SCHEDULE FOR INDIVIDUALIZED STUDIES, B.S.**

Freshman & Sophomore Years

- Liberal Education
- General Electives

Junior & Senior Years

- Indivdiualized Studies
- General Electives

# International Studies

The International Studies (IS) program seeks to promote awareness and knowledge of the global community and its component cultures/nations and to encourage an appreciation of other peoples. More specifically, an interdisciplinary curriculum provides a) an understanding of the validity of these diverse cultures and societies, b) an appreciation of the history and structure of, and contemporary challenges facing, these cultures and societies, c) an awareness of the causes and consequences of increased economic, environmental, political, and social interdependence, and d) competence in a second language.

Students interested in pursuing the IS major are encouraged to consider a second major or a minor in a related field, the content of which would complement the international skills and perspectives acquired through the IS major. To coordinate IS coursework with Liberal Education and work in any other major or minor field, students should contact an IS advisor early in their academic career.

**Programs**

- International Studies, B.A. *major*
- International Studies *minor*
- International Studies Emphasis *emph*

**Career Directions**

In addition to graduate study, majors have career options in both the public and private sectors. Specific opportunities may depend on the student's choice of a second major or minor.

**Preparation**

*Recommended High School Courses*

Economics

Geography

History

Languages

Political Science

## International Studies, B.A. *major*

Required Credits: 59
Required GPA: 2.25

**I REQUIRED CORE COURSES**

COMPLETE THE FOLLOWING COURSES:

- ANTH 1110 Cultural Anthropology (3 credits)
- GEOG 1400 World Regional Geography (3 credits)
- GEOG 2100 Introduction to Physical Geography (3 credits)
- HST 2660 Women and History (3 credits)
- HST 2700 The History of World Religions (3 credits)
- INTL 2509 The Global Economy (3 credits)
- POL 1300 Introduction to International Relations (3 credits)

**II SECOND LANGUAGE**

Complete 14 semester credits of a second language.

**III REQUIRED OPTIONS**

Select ONE OPTION from A:Topical and ONE OPTION from B:Regional

**A. TOPICAL OPTIONS**

1. INTERNATIONAL POLITICAL ECONOMY
SELECT 9 SEMESTER CREDITS FROM AT LEAST 2 OF THE FOLLOWING DISCIPLINES:

- BUAD 2750 International Business (3 credits)
- ECON 3400 International Trade and Finance (3 credits)
- GEOG 2300 Economic Geography (3 credits)
- HST 3409 Colonialism and Modernization in the Non-Western World (3 credits)
- PHIL 3390 Marxist Philosophy (3 credits)
- POL 3170 International Relations (3 credits)
- POL 3180 International Law and Organization (3 credits)
- POL 3190 International Political Economy (3 credits)

2. HUMANITIES
SELECT 9 SEMESTER CREDITS FROM AT LEAST 2 OF THE FOLLOWING DISCIPLINES:

- ENGL 2250 Understanding Literature (3 credits)
- ENGL 3607 Film Topics (3 credits)
- MASC 2190 International Communication (3 credits)
- PHIL 3380 Political Philosophy (3 credits)
- SPAN 4420 Twentieth Century Literature (3 credits)

**B. REGIONAL OPTIONS**

1. ASIA
SELECT 9 SEMESTER CREDITS FROM AT LEAST 2 OF THE FOLLOWING DISCIPLINES:

- GEOG 3820 Geography of East, South, and Southeast Asia (3 credits)
- HST 3419 East Asia (3 credits)
- HST 3429 South and Southeast Asia (3 credits)
- INTL 2100 Instructed International Tour (1-3 credits)
- INTL 2200 International Study Experience - Humanities (1-3 credits)
- INTL 2300 Comparative International Study Project (1-3 credits)
- INTL 2400 International Study Experience Social Science (1-3 credits)
- PHIL 3360 Asian Philosophy (3 credits)
- POL 3130 Asian Political Development (3 credits)

2. EUROPE
SELECT 9 SEMESTER CREDITS FROM AT LEAST 2 OF THE FOLLOWING DISCIPLINES:

- GEOG 3810 Geography of Europe (3 credits)
- HST 2580 Russia (3 credits)
- INTL 2100 Instructed International Tour (1-3 credits)
- INTL 2200 International Study Experience - Humanities (1-3 credits)

- INTL 2300 Comparative International Study Project (1-3 credits)
- INTL 2400 International Study Experience Social Science (1-3 credits)
- PHIL 3320 Modern Philosophy (3 credits)
- PHIL 3330 Nineteenth Century Philosophy (3 credits)
- POL 3160 Comparative European Politics (3 credits)

**IV CULMINATION**

COMPLETE THE FOLLOWING COURSE:

- INTL 4100 Seminar in International Studies (3 credits)

B. INTERNATIONAL EXPERIENCE
COMPLETE 1 OF THE FOLLOWING:

1. BSU program abroad, internship, or student teaching abroad or study at a foreign university with International Studies Council approval, or

2. Participation in Model UN or Model Arab League, or

3. Comparable experience approved by the student's advisor and the International Studies director.

## International Studies *minor*

Required Credits: 28
Required GPA: 2.00

**I REQUIRED CORE COURSES**

COMPLETE THE FOLLOWING COURSES:

- ANTH 1110 Cultural Anthropology (3 credits)
- GEOG 1400 World Regional Geography (3 credits)
- INTL 4100 Seminar in International Studies (3 credits)
- POL 1400 Introduction to Comparative Politics (3 credits)

SELECT 1 OF THE FOLLOWING COURSES:

- GEOG 2300 Economic Geography (3 credits)
- INTL 2300 Comparative International Study Project (1-3 credits)
- INTL 2509 The Global Economy (3 credits)

COMPLETE THE FOLLOWING COURSE:

- HST 2700 The History of World Religions (3 credits)

**A. INTERNATIONAL BUSINESS/ECONOMICS**

SELECT 8-9 SEMESTER CREDITS FROM THE FOLLOWING COURSES:

- BUAD 2750 International Business (3 credits)
- ECON 3400 International Trade and Finance (3 credits)
- INTL 2100 Instructed International Tour (1-3 credits)
  *or* INTL 2200 International Study Experience - Humanities (1-3 credits)
  *or* INTL 2300 Comparative International Study Project (1-3 credits)
  *or* INTL 2400 International Study Experience Social Science (1-3 credits)

SELECT 2-3 CREDITS FROM COURSES IN OPTION C, D, OR E.

**B. HUMANITIES**

SELECT 8-9 SEMESTER CREDITS FROM AT LEAST 2 OF THE FOLLOWING DISCIPLINES:

ENGLISH

- ENGL 3607 Film Topics (3 credits)

INTERNATIONAL STUDIES

- INTL 2100 Instructed International Tour (1-3 credits)
  *or* INTL 2200 International Study Experience - Humanities (1-3 credits)
  *or* INTL 2300 Comparative International Study Project (1-3 credits)
  *or* INTL 2400 International Study Experience Social Science (1-3 credits)

MASS COMMUNICATION

- MASC 2190 International Communication (3 credits)

PHILOSOPHY

- PHIL 3360 Asian Philosophy (3 credits)
- PHIL 3380 Political Philosophy (3 credits)

SELECT 2-3 CREDITS FROM COURSES IN OPTION C, D, OR E.

**C. EAST ASIA**

SELECT 8-9 SEMESTER CREDITS FROM THE FOLLOWING COURSES:

- GEOG 3820 Geography of East, South, and Southeast Asia (3 credits)
- HST 3419 East Asia (3 credits)
- INTL 2100 Instructed International Tour (1-3 credits)
  *or* INTL 2200 International Study Experience - Humanities (1-3 credits)
  *or* INTL 2300 Comparative International Study Project (1-3 credits)
  *or* INTL 2400 International Study Experience Social Science (1-3 credits)
- POL 3130 Asian Political Development (3 credits)

SELECT 2-3 CREDITS COURSES IN OPTION A OR B. COURSES SELECTED SHOULD RELATE TO REGION OF CONCENTRATION.

**D. EUROPE/COMMONWEALTH INDEPENDENT STATES**

SELECT 8-9 SEMESTER CREDITS FROM THE FOLLOWING COURSES:

- GEOG 3810 Geography of Europe (3 credits)
- HST 2580 Russia (3 credits)
- INTL 2100 Instructed International Tour (1-3 credits)
  *or* INTL 2200 International Study Experience - Humanities (1-3 credits)
  *or* INTL 2300 Comparative International Study Project (1-3 credits)
  *or* INTL 2400 International Study Experience Social Science (1-3 credits)
- POL 3160 Comparative European Politics (3 credits)

SELECT 2-3 CREDITS FROM COURSES IN OPTION A OR B. COURSES SELECTED SHOULD RELATE TO REGION OF CONCENTRATION.

**E. SOUTH AND SOUTHEAST ASIA**

SELECT 8-9 SEMESTER CREDITS FROM THE FOLLOWING COURSES:

- HST 3429 South and Southeast Asia (3 credits)
- INTL 2100 Instructed International Tour (1-3 credits)
  *or* INTL 2200 International Study Experience - Humanities (1-3 credits)
  *or* INTL 2300 Comparative International Study Project (1-3 credits)
  *or* INTL 2400 International Study Experience Social Science (1-3 credits)

- POL 3130 Asian Political Development (3 credits)

SELECT 2-3 CREDITS FROM COURSES IN OPTION A OR B. COURSES SELECTED SHOULD RELATE TO REGION OF CONCENTRATION.

**III REQUIRED SECOND LANGUAGE**

Complete 6-8 semester credits of a second language. If your native language is other than English and your English TOEFL score is 500 or higher, you will have met this requirement.

**IV REQUIRED INTERNATIONAL/OTHER CULTURAL EXPERIENCE**

See the catalog for required options

## International Studies Emphasis *emph*

Required Credits: 30
Required GPA: 2.25

**I REQUIRED CORE COURSES**

COMPLETE THE FOLLOWING COURSES:

- ANTH 1110 Cultural Anthropology (3 credits)
- GEOG 1400 World Regional Geography (3 credits)
- INTL 4100 Seminar in International Studies (3 credits)

**II REQUIRED ELECTIVES: GLOBAL PERSPECTIVES**

SELECT 1 COURSE FROM EACH OF AT LEAST 2 DIFFERENT DISCIPLINES:

- BUAD 2750 International Business (3 credits)
- ENGL 2250 Understanding Literature (3 credits)
- ENGL 3607 Film Topics (3 credits)
- GEOG 2100 Introduction to Physical Geography (3 credits)
- GEOG 2200 Introduction to Human Geography (3 credits)
- GEOG 2300 Economic Geography (3 credits)
- HST 2700 The History of World Religions (3 credits)
- INTL 2100 Instructed International Tour (1-3 credits)
- INTL 2509 The Global Economy (3 credits)
- MASC 2190 International Communication (3 credits)
- PHIL 3380 Political Philosophy (3 credits)
- POL 3100 American Foreign Policy (3 credits)
- POL 3170 International Relations (3 credits)
- POL 3180 International Law and Organization (3 credits)
- SOWK 2110 Intercultural Communication (3 credits)

**III REQUIRED SUB-FIELDS OF EMPHASIS**

Complete 1 of the following sub-fields:

**A. GENERALIST SUB-FIELD**

HISTORY, RELATIONS, GOVERNMENTS OF SPECIFIC REGIONS OR COUNTRIES.
SELECT 1 OF THE FOLLOWING COURSES:

- GEOG 3800 Regional Geography (1-3 credits)
- GEOG 3810 Geography of Europe (3 credits)
- GEOG 3820 Geography of East, South, and Southeast Asia (3 credits)
- HST 2580 Russia (3 credits)
- HST 3419 East Asia (3 credits)
- HST 3449 Middle East (3 credits)
- HST 3459 Latin America (3 credits)
- INTL 1160 Focus On ... (1 credit)
- INTL 2200 International Study Experience - Humanities (1-3 credits)
- PHIL 3390 Marxist Philosophy (3 credits)
- POL 3130 Asian Political Development (3 credits)
- POL 3160 Comparative European Politics (3 credits)

CULTURES OF SPECIFIC REGIONS OR COUNTRIES
SELECT 1 OF THE FOLLOWING COURSES:

- ANTH 2100 Native North Americans (3 credits)
- ARTH 3550 Nineteenth Century Visual Culture (4 credits)
- ARTH 3557 Twentieth Century Art (4 credits)
- ARTH 4550 Studies in Art History (2 credits)
- ENGL 3606 Culture Topics (3 credits)
- ENGL 3609 Period Topics (3 credits)
- ENGL 4706 Advanced Culture Topics (3 credits)
- HST 3429 South and Southeast Asia (3 credits)
- INTL 2300 Comparative International Study Project (1-3 credits)
- PHIL 3320 Modern Philosophy (3 credits)
- PHIL 3330 Nineteenth Century Philosophy (3 credits)
- PHIL 3360 Asian Philosophy (3 credits)

SELECT 6-8 SEMESTER CREDITS IN ANY ONE LANGUAGE OFFERED AT OR THROUGH BEMIDJI STATE UNIVERSITY:

ADDITIONAL ELECTIVES
These courses must be selected from "Required Electives: Global Perspectives" (II above), from the Generalist Sub-field (A, 1 and 2, above) or from the following All-University Courses:

- INTL 1910 Directed Independent Study (3 credits)
- INTL 4970 Internship (3 credits)

**B. ASIAN SUB-FIELD**

HISTORY, RELATIONS, GOVERNMENTS OF SPECIFIC REGIONS OR COUNTRIES.
SELECT 1 OF THE FOLLOWING COURSES:

- GEOG 3800 Regional Geography (1-3 credits)
- GEOG 3820 Geography of East, South, and Southeast Asia (3 credits)
- HST 3419 East Asia (3 credits)
- HST 3449 Middle East (3 credits)
- INTL 2200 International Study Experience - Humanities (1-3 credits)
- PHIL 3390 Marxist Philosophy (3 credits)
- POL 3130 Asian Political Development (3 credits)

CULTURES OF SPECIFIC REGIONS OR COUNTRIES
SELECT 1 OF THE FOLLOWING COURSES:

- HST 3429 South and Southeast Asia (3 credits)
- INTL 2300 Comparative International Study Project (1-3 credits)
- PHIL 3360 Asian Philosophy (3 credits)

SELECT 6-8 SEMESTER CREDITS IN ANY ONE LANGUAGE OFFERED AT OR THROUGH BEMIDJI STATE UNIVERSITY.

COMPLETE THE FOLLOWING COURSE(THIS COURSE SHOULD BE
ASIAN IN FOCUS):

- INTL 4100 Seminar in International Studies (3 credits)

ADDITIONAL ELECTIVES:
These courses must be selected from the Asian Sub-field
(B, 1 and 2, above) or from the following
All-University Courses:

- INTL 1910 Directed Independent Study (3 credits)
- INTL 4970 Internship (3 credits)

**C. CANADIAN SUB-FIELD**

HISTORY, RELATIONS, GOVERNMENTS OF SPECIFIC REGIONS OR COUNTRIES.
SELECT 1 OF THE FOLLOWING COURSES:

- GEOG 3800 Regional Geography (1-3 credits)
- INTL 2200 International Study Experience - Humanities (1-3 credits)

CULTURES OF SPECIFIC REGIONS OR COUNTRIES
SELECT 1 OF THE FOLLOWING COURSES:

- ENGL 3609 Period Topics (3 credits)
- ENGL 4706 Advanced Culture Topics (3 credits)
- INTL 2300 Comparative International Study Project (1-3 credits)

SELECT 6-8 SEMESTER CREDITS IN OJIBWE OFFERED AT OR THROUGH BEMIDJI STATE UNIVERSITY.

COMPLETE THE FOLLOWING COURSE (THIS COURSE SHOULD BE
CANADIAN IN FOCUS):

- INTL 4100 Seminar in International Studies (3 credits)

ADDITIONAL ELECTIVES
These courses must be selected from the Canadian
Sub-field (C, 1 and 2, above) or from the following
All-University Courses:

- INTL 1910 Directed Independent Study (3 credits)
- INTL 4970 Internship (3 credits)

## International Studies Courses

**INTL 1130 Education Abroad Basics (3 credits)**
Required of all education abroad participants: This course is designed to assist students in their preparation for their planned education abroad experience.

**INTL 1160 Focus On ... (1 credit)**
Focuses upon a different nation or global region each time it is offered, as determined by the International Studies Council. Liberal Education Goal Area 8.

**INTL 1910 Directed Independent Study (3 credits)**
Arranged individual study.

**INTL 2100 Instructed International Tour (1-3 credits)**
An educational tour under the guidance of a BSU faculty member. Course content may also include pre-tour preparation and in-and post-tour discussion and assignments. Credit for each offering to be determined by the International Studies program. Note: By arrangement only --- in conjunction with a BSU Education Abroad program. Prerequisite: INTL 1130. Liberal Education Goal Area 8.

**INTL 2200 International Study Experience - Humanities (1-3 credits)**
Focuses on such topics as the history, culture, politics, geography, economics, art, language, technology, and education of the host country of a BSU Education Abroad program. May incorporate lectures, discussions, and demonstrations by instructors of the hosting institution as well as by BSU faculty. Credit for each offering to be determined by the International Studies program. Note: By arrangement only --- in conjunction with a BSU Education Abroad program. Prerequisite: INTL 1130. Liberal Education Goal Areas 6 & 8.

**INTL 2300 Comparative International Study Project (1-3 credits)**
With prior approval of a sponsoring department, each student will arrange to pursue academic problems or projects using an international perspective as a basis for completing a comparative study between cultures and/or countries. Credit for each offering to be determined by the International Studies Program. Note: By arrangement only --- in conjunction with a BSU Education Abroad program. Prerequisite: INTL 1130. Liberal Education Goal Area 8.

**INTL 2400 International Study Experience Social Science (1-3 credits)**
Focuses on such topics as the history, culture, politics, geography, economics, art, language, technology, and education of the host country of a BSU Education Abroad program. May incorporate lectures, discussions, and demonstrations by instructors of the hosting institution as well as by BSU faculty. Credit for each offering to be determined by the International Studies program. Prerequisite: INTL 1130. Liberal Education Goal Area 8.

**INTL 2509 The Global Economy (3 credits)**
Presents the world economy as a single, interdependent system. Students develop an awareness of how individuals in this system are affected by the actions of others and to develop an appreciation of the benefits and costs accruing to individual states as a consequence of their involvement in the system.

**INTL 4100 Seminar in International Studies (3 credits)**
Topic to be determined.

**INTL 4970 Internship (3 credits)**
Graded Satisfactory/Unsatisfactory only. Student internships may be either full-time or part-time in a public or private agency appropriate to the degree objective. Internships consist of closely supervised periods of service that are arranged in advance of the course registration. Students should consult their advisor concerning prerequisites.

### All-University Courses

The course numbers listed below, not always included in the semester class schedule, may be registered for by consent of the advisor, instructor, or department chair, or may be assigned by the department when warranted. Individual registration requires previous arrangement by the student and the completion of any required form or planning outline as well as any prerequisites.

1910, 2910, 3910, 4910 DIRECTED INDEPENDENT STUDY
1920, 2920, 3920, 4920 DIRECTED GROUP STUDY
1930, 2930, 3930, 4930 EXPERIMENTAL COURSE
1940, 2940, 3940, 4940 IN-SERVICE COURSE
1950, 2950, 3950, 4950 WORKSHOP, INSTITUTE, TOUR
1960, 2960, 3960, 4960 SPECIAL PURPOSE INSTRUCTION
1970, 2970, 3970, 4970 INTERNSHIP
1980, 2980, 3980, 4980 RESEARCH
1990, 2990, 3990, 4990 THESIS

# Leadership

The certificate in Leadership Studies prepares graduates for problem-solving within organizations and communities. Emphasis is placed on conflict resolution, evidence-based reasoning, and ethical perspectives on leadership.

Students will be introduced to major academic studies of leadership, including research on problem-solving in the work-place, political psychology and professional ethics. We integrate our students' major studies and professional goals, culminating in a project on leadership challenges in their future endeavors. Relevant professional skills, like writing policy, will also be covered.

Leadership Studies is an interdisciplinary program, drawing on psychology, sociology, communication studies, political science, philosophy, and other fields.

**Programs**

- Leadership *minor*
- Leadership Certificate *cert*

## Leadership *minor*

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Required Credits: 21
Required GPA: 2.00

**I REQUIRED CORE COURSES**

COMPLETE THE FOLLOWING COURSES:

- LEAD 3500 Theories and Contexts of Leadership (3 credits)
- PHIL 2220 Ethics (3 credits)
- LEAD 4000 Capstone in Leadership (3 credits)

**II REQUIRED ELECTIVES**

SELECT 12 CREDITS FROM THE FOLLOWING COURSES. NO MORE THAN ONE COURSE (3 CREDITS) CAN BE CHOSEN FROM A PARTICULAR DEPARTMENT:

- BUAD 3520 Business Ethics (3 credits)
- ENGL 2150 Technical Writing (3 credits)
- ENGL 3155 Professional Writing (3 credits)
- ENGL 3177 Weblogs and Wikis (3 credits)
- HST 2800 Reacting to the Past (3 credits)
- HST 3128 Testing Democracy: Reform in Nineteenth-Century America (3 credits)
- HST 3258 The Roman Civil Law Tradition (3 credits)
- INST 3317 Tribal Government and Leadership (3 credits)
- MASC 3850 Media Ethics and Law (3 credits)
- NRSG 4200 Nursing Leadership And Management (4 credits)
- PHIL 3380 Political Philosophy (3 credits)
- POL 3210 Public Administration (3 credits)
- POL 3410 Legislative and Executive Relations (3 credits)
- PSY 2357 Industrial and Organizational Psychology (3 credits)
- PSY 3337 Group Processes (3 credits)
- PSY 3367 Social Psychology (3 credits)
- PSY 4408 Human Services Program Management (3 credits)
- SOC 2200 Social Movements and Change (3 credits)
- SOC 3230 Social Psychology (3 credits)
- SOWK 4310 Grant Writing (2 credits)
- WSGS 3220 Gender Politics (3 credits)

## Leadership Certificate *cert*

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Required Credits: 15
Required GPA: 2.00

**I REQUIRED CORE COURSES**

COMPLETE THE FOLLOWING COURSES:

- LEAD 3500 Theories and Contexts of Leadership (3 credits)
- PHIL 2220 Ethics (3 credits)
- LEAD 4000 Capstone in Leadership (3 credits)

**II REQUIRED ELECTIVES**

SELECT 6 CREDITS FROM THE FOLLOWING COURSES. NO MORE THAN ONE COURSE (3 CREDITS)CAN BE CHOSEN FROM A PARTICULAR DEPARTMENT. COURSES SHOULD BE SELECTED IN CONSULTATION WITH THE LEADERSHIP STUDIES DIRECTOR.

SOME COURSES REQUIRE PRE-REQUISITES THAT ARE NOT PART OF THE CERTIFICATE.

- BUAD 3520 Business Ethics (3 credits)
- ENGL 2150 Technical Writing (3 credits)
- ENGL 3155 Professional Writing (3 credits)
- ENGL 3177 Weblogs and Wikis (3 credits)
- HST 2800 Reacting to the Past (3 credits)
- HST 3128 Testing Democracy: Reform in Nineteenth-Century America (3 credits)
- INST 3317 Tribal Government and Leadership (3 credits)
- MASC 3850 Media Ethics and Law (3 credits)

- NRSG 4200 Nursing Leadership And Management (4 credits)
- PHIL 3380 Political Philosophy (3 credits)
- POL 3210 Public Administration (3 credits)
- POL 3410 Legislative and Executive Relations (3 credits)
- PSY 2357 Industrial and Organizational Psychology (3 credits)
- PSY 3337 Group Processes (3 credits)
- PSY 3367 Social Psychology (3 credits)
- PSY 4408 Human Services Program Management (3 credits)
- SOC 2200 Social Movements and Change (3 credits)
- SOC 3230 Social Psychology (3 credits)
- SOWK 4310 Grant Writing (2 credits)
- GWS 3220

III OTHER REQUIREMENTS Attend 2 guest lectures or workshops that are outside of any class requirement and take place outside of class on the topic of Leadership. These lectures and workshops must be pre-approved by the Director of the Leadership Studies Program. Synthesize the information presented and its relationship to coursework taken (both req'd and electives) Submit to the Leadership Program Director for evaluation and approval. This requirement must be completed prior to or concurrent with LEAD 4000, Capstone in Leadership. Develop a Personal Leadership Statement. As a part of this statement and as a culminating experience in pursuit of this certificate, students will discuss gains they have made since starting the Leadership certificate and will address three broad questions. What kind of leader am I? How have I demonstrated leadership knowledge and skills both inside and outside of the classroom? What gains have I made in affective, behavioral, ethical, social connectivity and collective action dimensions of leadership?

## Leadership Courses

**LEAD 3500 Theories and Contexts of Leadership (3 credits)**
Classic and contemporary theories of leadership and methods of study are discussed along with their strengths and weaknesses. Students will learn leadership theories and applications of those ideas, will evaluate themselves on the factors associated with ethical leadership, will identify their own leadership style and skills as well as ways to become leader-citizens. Liberal Education Goal Area 9.

**LEAD 4000 Capstone in Leadership (3 credits)**
Leadership coursework thus far has explored questions regarding who we are as people, how we live together, and how we effect change. In this course, students put their leadership knowledge and skills into action through the synthesis of relevant concepts and experiences to formulate their own informed perspective on leadership in contemporary society. Students will develop and implement a research or action-based project with some aspect of leadership as a focus. Prerequisites: Completion of all minor requirements.

### All-University Courses

The course numbers listed below, not always included in the semester class schedule, may be registered for by consent of the advisor, instructor, or department chair, or may be assigned by the department when warranted. Individual registration requires previous arrangement by the student and the completion of any required form or planning outline as well as any prerequisites.

1910, 2910, 3910, 4910 DIRECTED INDEPENDENT STUDY
1920, 2920, 3920, 4920 DIRECTED GROUP STUDY
1930, 2930, 3930, 4930 EXPERIMENTAL COURSE
1940, 2940, 3940, 4940 IN-SERVICE COURSE
1950, 2950, 3950, 4950 WORKSHOP, INSTITUTE, TOUR
1960, 2960, 3960, 4960 SPECIAL PURPOSE INSTRUCTION
1970, 2970, 3970, 4970 INTERNSHIP
1980, 2980, 3980, 4980 RESEARCH
1990, 2990, 3990, 4990 THESIS

# Liberal Studies

The Liberal Studies major is an interdisciplinary program in which students pursue broad interests or develop a specialized program in areas where majors are not currently offered. It encourages skills for responsible citizenship, including critical thinking, self-knowledge, and interdisciplinary understanding, and is appropriate for students who wish to participate fully in shaping their university education to their needs and interests.

**Programs**

- Liberal Studies, B.A. *major*

**Career Directions**

The Liberal Studies major by its nature does not aim at a single career path. Rather, it offers a meaningful liberal education to students who 1) have broad career goals, 2) already have a career and wish to advance it with a bachelor's degree, 3) seek to enrich their lives through a classic liberal education, 4) wish to prepare for graduate or professional study. The major could be appropriate for students interested in any of the following, for example:

Arts
Business
Communications
Education
Government
Human Services
Law
Library Science
Medicine
Nonprofit Organizations
Also: Graduate School
Professional School
Seminary

## Liberal Studies, B.A. *major*

**ADMISSION TO THE PROGRAM**

A letter of application submitted to the chair of the Department of Humanities is required for admission to the Liberal Studies major. Ideally it would be submitted before the student's senior year. It should contain the following:

A statement of understanding about the freedom of choice associated with this degree;
A statement of future plans to use this degree for personal growth, further study, employment, or other purposes;
An outline of a projected course of study and date of graduation.

The letter is reviewed by the program's advisor. When an application is approved, the student may declare the major.

The credits for the Liberal Studies major may be distributed in various ways. For example:

Broad distribution across the colleges.
Concentration in various areas of interest, including minors.
Organization in a formal program of study of one or more major themes, such as critical thinking, cultural heritage, science and technology.

No more than 23 credits for the Liberal Studies major may be applied toward a double-major or second degree in the designated disciplines.

Required Credits: 45
Required GPA: 2.25

**REQUIREMENTS FOR THE LIBERAL STUDIES MAJOR**

Completion of 45 semester credits in the student's choice of courses from the following disciplines, with at least 30 of the 45 credits at the 3000-4000 level

Anthropology
Art History
Biology
Chemistry
Computer Science
Economics
English
Environmental Science
Geography
Geology
History
Humanities
Indigenous Native Nations
International Studies
Mass Communication
Mathematics
Modern Lang
Music
Philosophy
Physics
Political Science
Psychology
Sociology
Speech Communication
Technology Art & Design - Design
Womens' Studies Gender Studies

# Mass Communications

Mass communication is the primary means by which our society relays news, information, and entertainment to the public. Technological advances have promoted instantaneous, global, and persistent presentation of images and ideas, both positive and negative. Mass Communication at BSU has traditionally been divided into three major areas: print, electronic, and advertising/public relations. In this age of media convergence, however, these traditional barriers are almost nonexistent. Therefore, our revised curriculum aims to prepare all students to communicate meaningful messages successfully, utilizing print, still and moving images, audio and multimedia technologies.

The Department of Mass Communications encourages students to stretch themselves by taking courses outside their area of interest and by completing a minor in another department. Writing skills are emphasized. Intensive classroom and laboratory experiences include the study of historical, practical, and theoretical aspects of mass communication. These experiences help prepare students for the rapid technological and social changes they will encounter as they move through their careers. Their preparation culminates in the completion of an academic thesis or a creative project with appropriate documentation.

It is hoped that these experiences will prepare students for the challenges they encounter as technologies and media formats continue to change rapidly. All students are required to attain a 2.50 GPA in their major courses before being approved for graduation with a Mass Communication major or minor. They are also required to successfully complete at least two semesters of second language, in preparation for the global media job market.

**Programs**

- Marketing Communication, B.S. *major*
- Mass Communication, B.S. *major*
- Mass Communication *minor*

**Career Directions**

Account Executive
Advertising Sales Person
Broadcaster
Editor
Information Manager
Journalist
Program Director
Program Producer
Public Relations Director
Station Manager
Also: Graduate Study

**Preparation**

*Recommended High School Courses*

Newspaper Production

Radio Production

Speech

Television Production

Writing

## Marketing Communication, B.S. *major*

Required Credits: 51
Required GPA: 2.25

**I REQUIRED COURSES**

COMPLETE THE FOLLOWING COURSES:

- BUAD 3351 Management (3 credits)
- BUAD 3361 Marketing (3 credits)
- BUAD 3467 Advertising Management (3 credits)
- BUAD 3567 Consumer Behavior (3 credits)
- BUAD 3568 Personal Selling (3 credits)
- BUAD 3569 E-Marketing (3 credits)
- BUAD 4467 Marketing Research (3 credits)
- BUAD 4468 Marketing Management (3 credits)
- MASC 1840 Introduction to Media Writing (3 credits)
- MASC 2600 Principles of Advertising (3 credits)
- MASC 2690 Principles of Public Relations (3 credits)
- MASC 4892 Senior Thesis/Project (3 credits)

SELECT 1 OF THE FOLLOWING COURSES:

- MASC 3500 Media Design (3 credits)
- MASC 3470 Multimedia Marketing Communication (3 credits)

SELECT 1 OF THE FOLLOWING COURSES:

- MASC 3270 Media Theory and Criticism (3 credits)
- MASC 4110 Media Research Methods (3 credits)

SELECT 1 OF THE FOLLOWING COURSES, 3-6 credits:

- MASC 3970 Internship (3 credits)
- MASC 4970 Internship (3 credits)
- BUAD 4970 Internship (1-12 credits)

**II REQUIRED ELECTIVES**

COMPLETE MASC ELECTIVES AT THE 2000 LEVEL OR ABOVE (6 CREDITS)

**Suggested semester schedule for Marketing Communication B.S. major**

The following is a list of required Marketing Communication Major, B.S. courses by year. This schedule is intended to help students plan their courses in an orderly fashion; however, these are only suggestions and this schedule is flexible.

Freshman

- MASC 1840 Introduction to Media Writing (3 credits)

- Liberal Education requirements

Sophomore

- MASC 2600 Principles of Advertising (3 credits)
- MASC 2690 Principles of Public Relations (3 credits)
- MASC 3500 Media Design (3 credits)
  or MASC 3470 Multimedia Marketing Communication (3 credits)
- Liberal Education requirements

Junior

- BUAD 3351 Management (3 credits)
- BUAD 3361 Marketing (3 credits)
- BUAD 3467 Advertising Management (3 credits)
- BUAD 3567 Consumer Behavior (3 credits)
- BUAD 3568 Personal Selling (3 credits)
- BUAD 3569 E-Marketing (3 credits)
- MASC 3500 Media Design (3 credits)
  or MASC 3470 Multimedia Marketing Communication (3 credits)
- Liberal Education requirements

Senior

- BUAD 4467 Marketing Research (3 credits)
- BUAD 4468 Marketing Management (3 credits)
- MASC 4110 Media Research Methods (3 credits)
- MASC 4892 Senior Thesis/Project (3 credits)
- MASC 3970 Internship (3 credits)
  or MASC 4970 Internship (3 credits)
  or BUAD 4970 Internship (1-12 credits)
- MASC Electives numbered 2000 or above
- Liberal Education requirements

## Mass Communication, B.S. *major*

Required Credits: 58
Required GPA: 2.50

**I REQUIRED CORE COURSES**

COMPLETE THE FOLLOWING COURSES:

- MASC 1500 Introduction to Mass Media (1 credit)
- MASC 1840 Introduction to Media Writing (3 credits)
- MASC 2110 Video Media Practicum (1 credit)
- MASC 2120 Audio Media Practicum (1 credit)
- MASC 2130 Multi-Media Practicum (1 credit)
- MASC 2223 Audio Production (3 credits)
- MASC 2233 Video Production (3 credits)
- MASC 2243 Video Editing (3 credits)
- MASC 2460 Digital Photography (3 credits)
- MASC 2700 Reporting and Writing (3 credits)
- MASC 3270 Media Theory and Criticism (3 credits)
- MASC 3460 Multimedia Production (3 credits)
- MASC 3850 Media Ethics and Law (3 credits)
- MASC 4110 Media Research Methods (3 credits)
- MASC 4892 Senior Thesis/Project (3 credits)

SELECT FOUR OF THE FOLLOWING ADVANCED PRODUCTION CLASSES:

- MASC 3150 Photojournalism (3 credits)
- MASC 3330 Audio/Video Studio Production (3 credits)
- MASC 3450 Single Camera Field Production (3 credits)
- MASC 3480 Advanced Audio Production (3 credits)
- MASC 4340 Digital Cinema (3 credits)

COMPLETE 3 SEMESTER CREDITS

- MASC 3970 Internship (3 credits)
- MASC 4970 Internship (3 credits)

**II REQUIRED ELECTIVES**

SELECT 6 SEMESTER CREDITS OF ELECTIVES FROM THE FOLLOWING COURSES:

- ENGL 3101 Advanced Writing (3 credits)
- ENGL 3145 Writing Creative Nonfiction I (3 credits)
- ENGL 3155 Professional Writing (3 credits)
- ENGL 4146 Writing Creative Nonfiction II (3 credits)
- MASC 1100 Mass Media and Society (3 credits)
- MASC 2190 International Communication (3 credits)
- MASC 2600 Principles of Advertising (3 credits)
- MASC 2650 Principles of Social Media (3 credits)
- MASC 2690 Principles of Public Relations (3 credits)
- MASC 2760 Documentary Film (3 credits)
- MASC 2900 Topics in Mass Communication (1-3 credits)
  *or* MASC 3900 Topics in Mass Communication (1-3 credits)
  *or* MASC 4900 Topics in Mass Communication (1-3 credits)
- MASC 2925 People and the Environment: Mass Media Perspectives (3 credits)
- MASC 3107 Politics and the Media Workshop (1-3 credits)
- MASC 3150 Photojournalism (3 credits)
- MASC 3310 Directing Visual Media (3 credits)
- MASC 3330 Audio/Video Studio Production (3 credits)
- MASC 3340 Editing (3 credits)
- MASC 3450 Single Camera Field Production (3 credits)
- MASC 3470 Multimedia Marketing Communication (3 credits)
- MASC 3500 Media Design (3 credits)
- MASC 3760 Documentary Film Workshop (3 credits)
- MASC 3770 Ethnographic Reporting (3 credits)
- MASC 3790 Screenwriting (3 credits)
- MASC 4330 Engineering for Electronic Media (3 credits)
- MASC 4340 Digital Cinema (3 credits)
- MASC 4350 Media Management (3 credits)
- SPCM 2100 Special Topics in Oral Communication (2 credits)

**Suggested Semester Schedule for Mass Communication B.S. major**

The following is a list of required Mass Communication Major, B.S. courses by year. This schedule is intended to help students plan their courses in an orderly fashion; however, these are only suggestions and this schedule is flexible.

Freshman

- MASC 1500 Introduction to Mass Media (1 credit)
- MASC 1840 Introduction to Media Writing (3 credits)
- MASC 2223 Audio Production (3 credits)
- MASC 2233 Video Production (3 credits)
- One or more practicums
- Liberal Education requirements

Sophomore

- MASC 2243 Video Editing (3 credits)
- MASC 2460 Digital Photography (3 credits)

- MASC 2700 Reporting and Writing (3 credits)
- MASC Electives
- One or more practicums
- Liberal Education requirements

Junior

- MASC 3270 Media Theory and Criticism (3 credits)
- MASC 3460 Multimedia Production (3 credits)
- MASC 3850 Media Ethics and Law (3 credits)
- MASC Advanced Production Classes & Electives
- Liberal Education requirements

Senior

- MASC 4110 Media Research Methods (3 credits)
- MASC 4892 Senior Thesis/Project (3 credits)
- MASC Advanced Production Classes & Electives
- MASC Internship
- Liberal Education requirements

## Mass Communication *minor*

Required Credits: 21
Required GPA: 2.50

**I REQUIRED CORE COURSES**

COMPLETE THE FOLLOWING COURSES:

- MASC 1840 Introduction to Media Writing (3 credits)
- MASC 3850 Media Ethics and Law (3 credits)

SELECT 2 OF THE FOLLOWING COURSES:

- MASC 2223 Audio Production (3 credits)
- MASC 2233 Video Production (3 credits)
- MASC 2243 Video Editing (3 credits)
- MASC 2460 Digital Photography (3 credits)

**II REQUIRED ELECTIVES**

SELECT 9 SEMESTER CREDITS FROM MASS COMMUNICATION COURSES AT THE 2000 LEVEL OR ABOVE

## Mass Communications Courses

**MASC 1100 Mass Media and Society (3 credits)**
Theoretical aspects of the media in the United States. Focuses on current media industries, issues, and events from coverage of high-profile events to media criticism. Students should gain an understanding of the social, economic, and intellectual forces that have helped shape the media. The course, primarily through lectures and demonstrations, presents concise historical perspectives. Liberal Education Goal Area 9.

**MASC 1500 Introduction to Mass Media (1 credit)**
This course introduces students to the field of mass media by exploring the variety of forms and processes that shape the media landscape; i.e. television, radio, cinema, print, podcasts, web-based streaming, etc. Students new to the Mass Communication major will also be introduced to a variety of student media opportunities including KBSU-TV, FM90, the Northern Student and the Headwaters Film Festival.

**MASC 1840 Introduction to Media Writing (3 credits)**
Applied aspects of techniques and styles of writing for mass media. Students should gain an understanding of elements common to all writing for the mass media and the differences among them. This course requires basic keyboarding skills.

**MASC 2100 Minorities in the Media (3 credits)**
Theoretical and applied aspects of the coverage of disenfranchised groups by the mass media. Students should gain an understanding of the complexity of the cultural, political, and economic forces that shape media coverage of disenfranchised groups. Through case studies, research, class discussion, and reporting and producing one or more stories, students learn how groups outside the power structure in society are portrayed in the mainstream media. Liberal Education Goal Areas 7 & 9.

**MASC 2110 Video Media Practicum (1 credit)**
The Video Media Practicum is a practical application workshop class offering experiential learning in a quasi-professional media setting. Students will learn and apply knowledge and decision-making skills in various ways in a video production environment. A written agreement with the instructor prior to registration is required in order to receive 1 credit during one semester. Prerequisite: MASC 2233

**MASC 2120 Audio Media Practicum (1 credit)**
The Audio Media Practicum is a practical application workshop class offering experiential learning in a quasi-professional media setting. Students will learn and apply knowledge and decision-making skills in various ways in an audio production and broadcast environment. A written agreement with the instructor prior to registration is required in order to receive 1 credit during one semester. Prerequisite: MASC 2223.

**MASC 2130 Multi-Media Practicum (1 credit)**
The Multi-Media Practicum is a practical application workshop class offering experiential learning in a quasi-professional media setting. Students will learn and apply knowledge and decision-making skills in various ways in a multi-media production environment. A written agreement with the instructor prior to registration is required in order to receive 1 credit during one semester. Prerequisite: MASC 1840.

**MASC 2190 International Communication (3 credits)**
Theoretical aspects of global communication processes: a comparative study of Communist, Third World, and Western media, and how systems affect global order in respect to economic, social, and political interaction. Students should gain a greater understanding of the diversity of communication systems throughout the world, the complexity of interactions between those systems, and the importance of such an understanding to maintaining successful global communication. The course incorporates lecture and discussion, and uses case studies of countries to study the theoretical issues. Liberal Education Goal Areas 7 & 8.

**MASC 2223 Audio Production (3 credits)**
Theoretical aspects of waveforms, transmission, and communication. Relationships of analog and digital media technology. Radio communication and broadcasting are discussed, including the FCC's role in broadcast operations. Students gain practical skills in the operation of audio equipment and are introduced to digital audio editing. Incorporates lecture, demonstration, and practical skill building. Lab hours required.

**MASC 2233 Video Production (3 credits)**
Theoretical and applied aspects of video communication, including international television systems. Exploration of all areas of television and delivery are discussed in detail. Creative development, including basic scriptwriting, are offered with practical opportunities for skill building in a studio setting. Students are also introduced to studio production and basic digital video editing concepts. The course incorporates lecture, demonstrations, and studio assignments. Lab hours required.

**MASC 2243 Video Editing (3 credits)**
This course focuses on the aesthetics and skill development in editing video and sound for multimedia, broadcast and cinematic productions. This course emphasizes storytelling -- the capture, editing, and outputting of video and audio using a desktop computer.

**MASC 2460 Digital Photography (3 credits)**
Theoretical and applied aspects of digital photography, including camera handling and Photoshop. Students become familiar with all aspects of operating a 35 mm camera and producing quality photographs for media-related work. A survey of the history and principles involved in producing digital photographs, transferring them to computers, enhancing them with software, and incorporating them in publications. Readings, discussions, and individual productions are utilized to familiarize students with the production of digital photos. Lab time required. Digital cameras provided. Lab fees.

**MASC 2600 Principles of Advertising (3 credits)**
Theoretical aspects of advertising processes: an overview of the field, concentrating on the sociological aspects. Students should gain an increased awareness of how advertising works, where it fits into the fabric of our society, and how it is used--sometimes ethically and sometimes not. The course incorporates lecture and discussion, and students gain appreciation for advertising techniques through weekly analysis of both print and broadcast advertising.

**MASC 2650 Principles of Social Media (3 credits)**
Social media has moved from a pastime to a professional endeavor. This course introduces the major social media platforms and theoretical constructs and examines how companies use social media for marketing, analytics and customer service. This course will give future media and communications professionals practical experience needed to successfully utilize social media for strategic endeavors.

**MASC 2690 Principles of Public Relations (3 credits)**
Principles related to public relations: The history/development of public relations, the basic concepts of effective public relations, and ethical practices of public relations. Students learn analysis/critique of public relations in contemporary society. Students focus on understanding how to conduct publicity campaigns, on public relations as a strategic communication, and on problem solving processes involving the application of key principles. Prerequisites: MASC 1840.

**MASC 2700 Reporting and Writing (3 credits)**
Applied aspects of reporting, researching and writing stories for the mass media. Students shall gain competency in gathering and synthesizing data and producing written news stories in a timely manner. Lectures, discussion and projects cover the techniques of gathering information from a variety of sources and writing it in various news formats. The course may require working with campus media. Prerequisite: MASC 1840

**MASC 2760 Documentary Film (3 credits)**
Historical overview of the genre. Students view and analyze a variety of documentary films to gain an understanding of their purpose, their impact, their audiences, and their cultural and artistic value. (Might not be offered every year.)

**MASC 2900 Topics in Mass Communication (1-3 credits)**
Study of a specific mass communication topic or development, person, or time period, with the specific title being announced in each semester's class schedule. (Might not be offered every year.)

**MASC 2925 People and the Environment: Mass Media Perspectives (3 credits)**
For both majors and non-majors. Theoretical aspects of the effect of the mass media on environmental processes. Students should gain an understanding of the complexity of the cultural, political, and economic forces that shape media coverage of the environment, and the importance of such an understanding to maintaining a sustainable global environment. The course is a discussion section of the interdisciplanary lecture on environmental issues for liberal education. Liberal Education Goal Area 10.

**MASC 2970 Internship (3 credits)**
Graded Satisfactory/Unsatisfactory only. Student internships may be either full-time or part-time in a public or private agency appropriate to the degree objective. Internships consist of closely supervised periods of service that are arranged in advance of the course registration. Students should consult their advisor concerning prerequisites.

**MASC 3107 Politics and the Media Workshop (1-3 credits)**
Theoretical aspects of the interaction between politics and the media in the United States. Students gain an understanding of how the political process and the mass media work to shape each other nationally. Offered for both majors and non-majors in cooperation with the Washington Center in Washington, DC.

**MASC 3150 Photojournalism (3 credits)**
Applied aspects of press photography and picture editing. Students should gain competence in creating photographs and designing and laying out photo essays. Demonstration and hands-on experience covers darkroom processing, picture story planning and execution, and computer manipulation of images. The course concentrates on the application of basic principles of both photography and journalism, and requires laboratory work, as well as in-class participation. Prerequisites: MASC 1840 and MASC 2450. (May not be offered every year.)

**MASC 3270 Media Theory and Criticism (3 credits)**
Provides an overview of thinking about the mass media and an introduction to the major social science approaches to the study of journalism within the context of mass communication. Explores critical and theoretical approaches to understanding contemporary mass media. Focuses on television, newspapers, and new media in an examination of the meanings, benefits, and practices of one of the most widespread sign systems of our time. Students learn how to decode the media messages that proliferate around us. Prerequisites: MASC 1840 and junior or senior status.

**MASC 3310 Directing Visual Media (3 credits)**
Course focuses on the techniques required to successfully direct a video production. Two distinct styles of directing include directing live multi-camera and on-location single camera production. Students gain experience by directing studio news and entertainment, live sports, and single camera commercial and documentary programs. This course also explores in detail the creative decisions that a director must make, how to manage a production crew, and how to direct on-camera talent. Prerequisite: MASC 2233.

**MASC 3330 Audio/Video Studio Production (3 credits)**
An advanced media production course that provides an in-depth understanding of audience analysis, news and sports programming, advanced multi-camera live production, and field news reporting. Implementation of new digital technologies and production techniques for Web casting are included. Lab hours required. Prerequisites: MASC 2223 and MASC 2233.

**MASC 3340 Editing (3 credits)**
Theoretical and applied aspects of editing journalistic writing on both a macro and micro level. Topics include language, structure, style, and usage within a historical and journalistic context. Students gain experience in coaching other writers to strengthen their editing skills. Prerequisite: MASC 2700.

**MASC 3450 Single Camera Field Production (3 credits)**
An advanced media course in which students learn hands-on, single camera production on-location. Areas of study include cinema verite, documentary, advanced news gathering, and experimental/music video. All projects are edited with non-linear computer systems and published to DVD and Web. Lab hours required. Prerequisite: MASC 2233.

**MASC 3460 Multimedia Production (3 credits)**
Understanding of current technology, techniques, and design theories for conceptualizing and using multiple media for story-telling. Students blend photography, audio, video, and text to produce a journalistic multimedia project. Prerequisites: MASC 1840, MASC 2223, MASC 2233, MASC 2243, and MASC 2460. (Might not be offered every year)

**MASC 3470 Multimedia Marketing Communication (3 credits)**
This course focuses on reaching potential customers through the use of multimedia content marketing. You will learn how to create multimedia content that delivers information about your product or services to your target audience at a time when they are open to receiving it. While we will be working with content marketing concepts during the semester, the main focus is on the production of multimedia content as a tool to assist marketing goals.

**MASC 3480 Advanced Audio Production (3 credits)**
This course emphasizes the techniques of advanced audio production; hands-on experience in the script writing, multiple-source audio recording, and multi-track editing and production. Students should be able to use the techniques learned in this class to produce advanced audio documentaries, advertisements, information programs, audio dramas, or sound tracks for film and video. In addition to some lecture and demonstration, this course involves much hands-on experience. A considerable amount of laboratory time is devoted to completing audio productions. You will create your own audio productions in order to gain hands-on experience in the creative process in a studio and on-location. You will also gain an understanding of the collaborative nature of video production by working on a production crew with other class members. Prerequisites: MASC 2223 and MASC 2243.

**MASC 3500 Media Design (3 credits)**
Study and application of the elements of design used in producing magazines, newspapers, and corporate communication pieces such as brochures and newsletters, as well as basic design for online content. Students work with current desktop publishing software and learn production principles and considerations in creating communication pieces.

**MASC 3760 Documentary Film Workshop (3 credits)**
A hands-on course in which students write, produce, and direct a "short subject" documentary. In the process of working together, the student crew learns documentary storytelling methods and cinematic technique. Together, the student production team selects a worthy topic regarding persons or activities locally and tells a compelling human-interest story that culminates in a public film debut. Prerequisites: MASC 2233. (Might not be offered every year.)

**MASC 3770 Ethnographic Reporting (3 credits)**
Students learn how to do fieldwork, a method of inquiry traditionally used in cultural anthropology that uses participant-observation, in-depth interviewing, and examining rituals, among other tools. Students choose a sub-culture in Bemidji to do fieldwork in and write an in-depth article about the community after they come to know the cultural values and behaviors of their group. Readings of ethnographic works from a variety of disciplines. Prerequisite: MASC 2700. (Might not be offered every year)

**MASC 3790 Screenwriting (3 credits)**
This is an advanced writing course in which students learn the process of writing a dramatic screenplay for film and digital cinema. Students learn to develop the critical dramatic elements that are central to a successful screenplay: characterization, plot development, and cinematic description. Each student develops and writes a screenplay that is formatted to film industry standards. Prerequisites: ENGL 1151 and MASC 1840. (Might not be offered every year.)

**MASC 3850 Media Ethics and Law (3 credits)**
This course introduces students to the study of media ethics and the principles of media law as they apply to the work of media and communications professionals in a variety of fields. Examines the principles on which American law is based and discusses the creation, interpretation and the role of law, while analyzing ethical issues through case studies concerned with different media, including advertising, film, photojournalism, print and broadcast journalism, public relations, television and World Wide Web. Introduces a variety of key issues in media law and ethics and demonstrates the complexities in reaching outcomes.

**MASC 3900 Topics in Mass Communication (1-3 credits)**
Study of a specific mass communication topic or development, person, or time period, with the specific title being announced in each semester's class schedule.

**MASC 3970 Internship (3 credits)**
Graded Satisfactory/Unsatisfactory only. Student internships may be either full-time or part-time in a public or private agency appropriate to the degree objective. Internships consist of closely supervised periods of service that are arranged in advance of the course registration. Students should consult their advisor concerning prerequisites.

**MASC 4110 Media Research Methods (3 credits)**
Assists students in turning research questions into substantive research designs with understanding of the concepts involved. This course focuses on 1) survey of methods for investigating mass communication processes and effects; 2) practice of survey research, including planning, sampling, interviewing, and analysis of data; and 3) introduction to quantitative and qualitative research methods. Other goals are to develop a deeper appreciation of research strategies and decisions and to make students aware of the variety of available research and analysis techniques. Prerequisite: MASC 1840 and junior or senior status.

**MASC 4330 Engineering for Electronic Media (3 credits)**
A very practical "mini course" in electronic fundamentals. Explores the basic theory of how things function in a broadcast environment. Practical use and repair of audio/video connectors, components, and circuitry. Reading of instruments, levels, and oscilloscope patterns in a television/radio studio. Techniques of soldering connectors, and cable repair used in everyday television/radio stations. Audio theory and components, as well as video signal operation. At the end of this course, students will have sufficient electronic knowledge to pass the FCC Amateur Radio license exam. This class builds confidence and understanding of broadcast operations. Lab hours required. Prerequisites: MASC 2223 or MASC 2233.

**MASC 4340 Digital Cinema (3 credits)**
Introduction to the theory and practice of motion picture filmmaking as it applies to digital media. Topics include familiarity with filmmaking equipment; basic cinematic techniques; converting ideas to images; the use of lighting, editing, and sound in cinema; scheduling, casting, and location scouting; and the role of acting, directing, and good storytelling in the filmmaking process. Students work in small groups to make short digital video films that manifest their ideas and beliefs in content and process. Forms of distribution are also explored, including DVD, the Internet, and Web streaming. Prerequisites: MASC 1840 and MASC 2233. (Might not be offered every year.)

**MASC 4350 Media Management (3 credits)**
Explores information theory and how all forms of media dissemination revolve around this concept. Emphasis on broadcasting operations and the study of departments within a management organization. Functionality, creativity, and control of new media. Relationships of media resources to the general public and government regulation. The primary role of sales and marketing to any form of media dissemination is explored in relation to the structure of the broadcasting business in general. This class contains a heavy writing and presentation element as well as trips to area broadcast stations. Prerequisite: MASC 3330.

**MASC 4892 Senior Thesis/Project (3 credits)**
Students focus on a culminating thesis or project that addresses a specific topic or area of research and interest in mass communication. Using the appropriate methodology, students pursue, in depth, literature and current research in order to support their thesis. Students may elect to do either an academic research paper or media project that supports their thesis and demonstrates an understanding of their research project. Prerequisite: MASC 4110 or consent of instructor.

**MASC 4900 Topics in Mass Communication (1-3 credits)**
Study of a specific mass communication topic or development, person, or time period, with the specific title being announced in each semester's class schedule.

**MASC 4970 Internship (3 credits)**
Graded Satisfactory/Unsatisfactory only. Student internships may be either full-time or part-time in a public or private agency appropriate to the degree objective. Internships consist of closely supervised periods of service that are arranged in advance of the course registration. Students should consult their advisor concerning prerequisites.

## All-University Courses

The course numbers listed below, not always included in the semester class schedule, may be registered for by consent of the advisor, instructor, or department chair, or may be assigned by the department when warranted. Individual registration requires previous arrangement by the student and the completion of any required form or planning outline as well as any prerequisites.

1910, 2910, 3910, 4910 DIRECTED INDEPENDENT STUDY
1920, 2920, 3920, 4920 DIRECTED GROUP STUDY
1930, 2930, 3930, 4930 EXPERIMENTAL COURSE
1940, 2940, 3940, 4940 IN-SERVICE COURSE
1950, 2950, 3950, 4950 WORKSHOP, INSTITUTE, TOUR
1960, 2960, 3960, 4960 SPECIAL PURPOSE INSTRUCTION
1970, 2970, 3970, 4970 INTERNSHIP
1980, 2980, 3980, 4980 RESEARCH
1990, 2990, 3990, 4990 THESIS

# Mathematics

Mathematics in its purest form is an art concerned with the exploration and expression of ideas. In its practical form, mathematics is a symbolic language and is concerned with the application of mathematical ideas and tools to the sciences and other areas of human endeavor.

The study of mathematics is grounded in problem solving and includes the ability to think in a certain, organized way. It is basic to careers in the natural sciences, essential to the effective use of computer technology, and valuable in related fields such as the social sciences, business, and industrial technology.

The Mathematics majors offered by the Department of Mathematics provide students with a core of knowledge in mathematics and allow specialization in both teaching and non-teaching programs.

**Programs**

- Elementary Education, B.S. (Mathematics Endorsement (Teacher Licensure))*major*
- Mathematics Education, B.S. ((Teacher Licensure))*major*
- Mathematics, B.S. (Actuarial Emphasis)*major*
- Mathematics, B.S. (General Emphasis)*major*
- Mathematics, B.S. (Applied Emphasis)*major*
- Mathematics *minor*

**Career Directions**

Actuarial Fields
Business and Industry
Computer Science
Data Processing
Economics
Engineering
Environmental Technology
Government
Mathematics Teaching
Medical Research
Natural Sciences
Statistics
Also: Graduate Study

**Preparation**

*Recommended High School Courses*
Computer Science
Mathematics at each grade level

## Elementary Education, B.S. *major* Mathematics Endorsement (Teacher Licensure)

Required Credits: 85
Required GPA: 2.50

**I ELEMENTARY EDUCATION FOUNDATION COURSES**

COMPLETE THE FOLLOWING COURSES:

- ED 3100 Introduction to the Foundations of Public School Education (3 credits)
- ED 3110 Educational Psychology (3 credits)
- ED 3140 Human Relations In Education (3 credits)
- ED 3350 Pedagogy: Planning for Instruction (3 credits)
- ED 3780 Adaptation and Management: Designing the Learning Environment (3 credits)
- ED 4799 The Professional Teacher (1 credit)
- HLTH 3400 Health and Drugs in Society (2 credits)

COMPLETE THE FOLLOWING COURSE:

- ED 4820 Student Teaching - Elementary (1-16 credits)

**II ELEMENTARY EDUCATION MAJOR COURSES**

COMPLETE THE FOLLOWING COURSES:

- ED 3201 Language Arts I (3 credits)
- ED 3202 Language Arts II (3 credits)
- ED 3203 Language Arts III (3 credits)
- ED 3221 Elementary Math Methods (3 credits)
- ED 3222 Elementary Science Methods (3 credits)
- ED 3240 Social Studies in the Elementary School (3 credits)
- ED 3301 Creative Expressions (3 credits)
- ED 3302 Creative Process Foundations: Patterns (3 credits)
- HLTH 4100 Teaching Elementary School Health (2 credits)
- PHED 4200 Methods of Teaching Elementary Physical Education to Classroom Teachers (1 credit)

COMPLETE THE FOLLOWING COURSE:

- MATH 1011 Mathematics for Elementary School Teachers I (3 credits)

COMPLETE THE FOLLOWING COURSE:

- MATH 1013 Mathematics for Elementary School Teachers II (3 credits)

**MATHEMATICS ENDORSEMENT**

ENDORSEMENT CORE:

- ED 4737 Content Area Reading (3 credits)
- ED 3417 Teaching and Learning in the Middle School (3 credits)
- ED 4840 Student Teaching - Special Fields (5 credits)

COMPLETE THE FOLLOWING COURSES:

- MATH 3064 Number Concepts for Teachers (4 credits)
- MATH 3065 Mathematical Foundations of Algebra for Teachers (4 credits)
- MATH 3066 Geometry and Technology in the Mathematics Classroom (4 credits)
- MATH 3067 Data Investigations, Probability, and Statistics for Teachers (4 credits)

## Mathematics Education, B.S. *major* (Teacher Licensure)

The Mathematics Bachelor of Science (Teacher Licensure) follows the guidelines

of the National Council of Teacher of Mathematics for undergraduate programs for teachers of mathematics. Students majoring in this degree should also check the Professional Education requirements found in Professional Education: Secondary.

Note: If the student's high school mathematics courses and/or the Mathematics Placement Test indicate a lack of readiness for calculus, the student will be placed in one of the following precalculus sequences: MATH 1470; or MATH 1170 and MATH 1180; or MATH 1170 and MATH 1470. Students who need to take more than one course in preparation for calculus may not be able to complete this program without exceeding 120 credits.

Required Credits: 76
Required GPA: 2.50

**I REQUIRED CORE COURSES**

COMPLETE THE FOLLOWING COURSES:

- MATH 2210 Discrete Mathematics (4 credits)
- MATH 2471 Calculus I (5 credits)
- MATH 2472 Calculus II (5 credits)
- MATH 2480 Multivariable Calculus (4 credits)
- MATH 3310 Linear Algebra (4 credits)

**II REQUIRED ELECTIVES**

COMPLETE THE FOLLOWING COURSES:

- MATH 3065 Mathematical Foundations of Algebra for Teachers (4 credits)
- MATH 3560 Classical and Modern Geometry (3 credits)

SELECT 1 OF THE FOLLOWING COURSES:

- MATH 3067 Data Investigations, Probability, and Statistics for Teachers (4 credits)
- STAT 2610 Applied Statistics (4 credits)
- STAT 3631 Probability and Statistics I (4 credits)

SELECT 1 OF THE FOLLOWING COURSES:

- MATH 4350 Abstract Algebra (3 credits)
- MATH 4371 Modern Algebra (3 credits)

**III REQUIRED CONCENTRATION, SECOND EDUCATION MAJOR OR MIDDLE LEVEL ENDORSEMENT**

COMPLETE ONE OF THE FOLLOWING OPTIONS:

Note: If taken under II. above, MATH 3067 or STAT 3631 may be used to meet this requirement.

A. APPLIED MATHEMATICS/ CALCULUS CONCENTRATION
COMPLETE 2 OF THE FOLLOWING COURSES:

- MATH 2490 Differential Equations (4 credits)
- MATH 3710 Mathematical Modeling (3 credits)
- MATH 3720 Numerical Methods (3 credits)
- MATH 4410 Introduction to Analysis (3 credits)
- MATH 4760 Topics in Applied Mathematics (3 credits)

B. COMPUTER SCIENCE CONCENTRATION
COMPLETE 2 OF THE FOLLOWING COURSES:

- CS 2270 Introduction to Web Programming (3 credits)
- CS 2321 Computer Science I (4 credits)
- CS 2322 Computer Science II (4 credits)

C. MIDDLE LEVEL MATHEMATICS CONCENTRATION
COMPLETE 2 OF THE FOLLOWING COURSES:

- MATH 3064 Number Concepts for Teachers (4 credits)
- MATH 3066 Geometry and Technology in the Mathematics Classroom (4 credits)
- MATH 3067 Data Investigations, Probability, and Statistics for Teachers (4 credits)

D. STATISTICS CONCENTRATION
COMPLETE 2 OF THE FOLLOWING COURSES:

- STAT 3610 Time Series Analysis (3 credits)
- STAT 3631 Probability and Statistics I (4 credits)
- STAT 3632 Probability and Statistics II (3 credits)

E: COMPLETE A SECONDARY EDUCATION MAJOR
(OTHER THAN MATHEMATICS)

F: COMPLETE A MIDDLE LEVEL ENDORSEMENT
(OTHER THAN MATHEMATICS)

**REQUIRED PROFESSIONAL EDUCATION COURSES**

COMPLETE THE FOLLOWING COURSES:

- ED 3100 Introduction to the Foundations of Public School Education (3 credits)
- ED 3110 Educational Psychology (3 credits)
- ED 3140 Human Relations In Education (3 credits)
- ED 3350 Pedagogy: Planning for Instruction (3 credits)
- ED 3440 Mathematics Methods in the Secondary School (4 credits)
- ED 3780 Adaptation and Management: Designing the Learning Environment (3 credits)
- ED 4737 Content Area Reading (3 credits)
- ED 4799 The Professional Teacher (1 credit)
- HLTH 3400 Health and Drugs in Society (2 credits)

COMPLETE 12 CREDITS OF THE FOLLOWING COURSE

- ED 4830 Student Teaching - Secondary (1-12 credits)

**Program Learning Outcomes | Mathematics Education, B.S.**

1. Knowledge: Students will understand the content and methods of the core areas of undergraduate mathematics.

2. Analysis: Students will identify, interpret and analyze problems, discern structure and pattern and make conjectures.

3. Application: Students will apply appropriate procedures and technology to solve problems.

4. Proof: Students will apply creative and analytic thinking to develop clear and valid mathematical arguments.

5. Communication: Students will communicate mathematical ideas and

understanding effectively.

6. Pedagogy: Student will develop an understanding of a variety of pedagogical techniques and be able to apply them to the design of lessons and curriculum that communicate mathematical concepts to learners with diverse learning styles and ability levels.

7. Career Readiness: Students will be prepared for careers in education and further study in mathematics.

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## Mathematics, B.S. *major*
## Actuarial Emphasis

Note: If the student's high school mathematics courses and/or the Mathematics Placement Test indicate a lack of readiness for calculus, the student will be placed in one of the following precalculus sequences: MATH 1470; or MATH 1170 and MATH 1180; or MATH 1170 and MATH 1470.

Required Credits: 57
Required GPA: 2.25

**I REQUIRED CORE COURSES**

COMPLETE THE FOLLOWING COURSES:

- MATH 2210 Discrete Mathematics (4 credits)
- MATH 2471 Calculus I (5 credits)
- MATH 2472 Calculus II (5 credits)
- MATH 2480 Multivariable Calculus (4 credits)
- MATH 3310 Linear Algebra (4 credits)

**ACTUARIAL EMPHASIS**

COMPLETE THE FOLLOWING COURSES:

- ACCT 1101 Principles of Accounting I (3 credits)
- ACCT 1102 Principles of Accounting II (3 credits)
- BUAD 3771 Financial Management (3 credits)
- BUAD 3772 Advanced Financial Management (3 credits)
- CS 2321 Computer Science I (4 credits)
- ECON 2000 Markets and Resource Allocation (3 credits)
- ECON 2100 Macroeconomics and the Business Cycle (3 credits)
- STAT 3610 Time Series Analysis (3 credits)
- STAT 3631 Probability and Statistics I (4 credits)
- STAT 3632 Probability and Statistics II (3 credits)

SELECT ONE OF THE FOLLOWING COURSES:

- MATH 3710 Mathematical Modeling (3 credits)
- MATH 3720 Numerical Methods (3 credits)
- MATH 4760 Topics in Applied Mathematics (3 credits)

**SUGGESTED SEMESTER SCHEDULE FOR MATHEMATICS MAJOR, B.S.**

The following is a list of required Mathematics Major, B.S. courses by year. This schedule is intended to help students plan their courses in an orderly fashion; however, these are only suggestions and this schedule is flexible.

Freshman

- MATH 1470 Precalculus (5 credits)
- MATH 2471 Calculus I (5 credits)
- MATH 2472 Calculus II (5 credits)
- Liberal Education requirements

Sophomore

- MATH 2210 Discrete Mathematics (4 credits)
- MATH 2480 Multivariable Calculus (4 credits)
- MATH 3310 Linear Algebra (4 credits)
- Courses in the Field of Emphasis (consult with advisor)
- Liberal Education requirements

Junior/Senior

- Courses in the Field of Emphasis (consult with advisor)
- Complete Liberal Education requirements

## Mathematics, B.S. *major*
## General Emphasis

Note: If the student's high school mathematics courses and/or the Mathematics Placement Test indicate a lack of readiness for calculus, the student will be placed in one of the following precalculus sequences: MATH 1470; or MATH 1170 and MATH 1180; or MATH 1170 and MATH 1470.

Required Credits: 44
Required GPA: 2.25

**I REQUIRED CORE COURSES**

COMPLETE THE FOLLOWING COURSES:

- MATH 2210 Discrete Mathematics (4 credits)
- MATH 2471 Calculus I (5 credits)
- MATH 2472 Calculus II (5 credits)
- MATH 2480 Multivariable Calculus (4 credits)
- MATH 3310 Linear Algebra (4 credits)

**GENERAL EMPHASIS**

COMPLETE THE FOLLOWING COURSE:

- STAT 3631 Probability and Statistics I (4 credits)

SELECT 1 OF THE FOLLOWING COURSES:

- MATH 4350 Abstract Algebra (3 credits)
- MATH 4371 Modern Algebra (3 credits)
- MATH 4410 Introduction to Analysis (3 credits)

**REQUIRED ELECTIVES**

SELECT 5 COURSES (not used above) FROM THE FOLLOWING:

- CS 2322 Computer Science II (4 credits)
- MATH 2490 Differential Equations (4 credits)
- MATH 3260 Mathematical Problem Solving (3 credits)
- MATH 3440 Introduction to Fractals & Chaos (3 credits)
- MATH 3560 Classical and Modern Geometry (3 credits)
- MATH 3710 Mathematical Modeling (3 credits)
- MATH 3720 Numerical Methods (3 credits)
- MATH 3820 History of Mathematics (3 credits)
- MATH 4240 Number Theory (3 credits)
- MATH 4350 Abstract Algebra (3 credits)
- MATH 4371 Modern Algebra (3 credits)

- MATH 4410 Introduction to Analysis (3 credits)
- MATH 4470 Advanced Calculus (3 credits)
- MATH 4760 Topics in Applied Mathematics (3 credits)
- STAT 3610 Time Series Analysis (3 credits)
- STAT 3632 Probability and Statistics II (3 credits)

**SUGGESTED SEMESTER SCHEDULE FOR MATHEMATICS MAJOR, B.S.**

The following is a list of required Mathematics Major, B.S. courses by year. This schedule is intended to help students plan their courses in an orderly fashion; however, these are only suggestions and this schedule is flexible.

Freshman

- MATH 1470 Precalculus (5 credits)
- MATH 2471 Calculus I (5 credits)
- MATH 2472 Calculus II (5 credits)
- Liberal Education requirements

Sophomore

- MATH 2210 Discrete Mathematics (4 credits)
- MATH 2480 Multivariable Calculus (4 credits)
- MATH 3310 Linear Algebra (4 credits)
- Courses in the Field of Emphasis (consult with advisor)
- Liberal Education requirements

Junior/Senior

- Courses in the Field of Emphasis (consult with advisor)
- Complete Liberal Education requirements

## Mathematics, B.S. *major*
## Applied Emphasis

Note: If the student's high school mathematics courses and/or the Mathematics Placement Test indicate a lack of readiness for calculus, the student will be placed in one of the following precalculus sequences: MATH 1470; or MATH 1170 and MATH 1180; or MATH 1170 and MATH 1470.

Required Credits: 40
Required GPA: 2.25

**I REQUIRED CORE COURSES**

COMPLETE THE FOLLOWING COURSES:

- MATH 2210 Discrete Mathematics (4 credits)
- MATH 2471 Calculus I (5 credits)
- MATH 2472 Calculus II (5 credits)
- MATH 2480 Multivariable Calculus (4 credits)
- MATH 3310 Linear Algebra (4 credits)

**APPLIED EMPHASIS**

SELECT AT LEAST 6 COURES FROM THE FOLLOWING:

- CS 2322 Computer Science II (4 credits)
- MATH 2490 Differential Equations (4 credits)
- MATH 3710 Mathematical Modeling (3 credits)
- MATH 3720 Numerical Methods (3 credits)
- MATH 4410 Introduction to Analysis (3 credits)
- MATH 4760 Topics in Applied Mathematics (3 credits)
- STAT 2610 Applied Statistics (4 credits)
  *or* STAT 3631 Probability and Statistics I (4 credits)
- STAT 3610 Time Series Analysis (3 credits)
- STAT 3632 Probability and Statistics II (3 credits)

**SUGGESTED SEMESTER SCHEDULE FOR MATHEMATICS MAJOR, B.S.**

The following is a list of required Mathematics Major, B.S. courses by year. This schedule is intended to help students plan their courses in an orderly fashion; however, these are only suggestions and this schedule is flexible.

Freshman

- MATH 1470 Precalculus (5 credits)
- MATH 2471 Calculus I (5 credits)
- MATH 2472 Calculus II (5 credits)
- Liberal Education requirements

Sophomore

- MATH 2210 Discrete Mathematics (4 credits)
- MATH 2480 Multivariable Calculus (4 credits)
- MATH 3310 Linear Algebra (4 credits)
- Courses in the Field of Emphasis (consult with advisor)
- Liberal Education requirements

Junior/Senior

- Courses in the Field of Emphasis (consult with advisor)
- Complete Liberal Education requirements

Students seeking the Applied emphasis are encouraged to take significant coursework in related fields such as biology, business, chemistry, computer science, economics, geography, geology, environmental studies, physics or technology. Students planning to attend graduate school in applied mathematics or a related field should take both MATH 2490 Differential Equations and MATH 4410 Introduction to Analysis.

## Mathematics *minor*

Required Credits: 20.0
Required GPA: 2.00

**I REQUIRED COURSES**

COMPLETE THE FOLLOWING COURSES:

- MATH 2471 Calculus I (5 credits)
- MATH 2472 Calculus II (5 credits)

**II REQUIRED ELECTIVES**

SELECT 10 SEMESTER CREDITS FROM THE FOLLOWING COURSES:

(Must include at least one MATH or STAT class numbered 3260 or above.)

- MATH 2210 Discrete Mathematics (4 credits)
- MATH 2480 Multivariable Calculus (4 credits)
- MATH 2490 Differential Equations (4 credits)
- Any MATH course numbered 3260 or above
- Any STAT course except STAT 3660 Statistics for the Health Sciences (3

credits)

OR COMPLETE ALL OF THE FOLLOWING COURSES:

- MATH 2210 Discrete Mathematics (4 credits)
- MATH 2480 Multivariable Calculus (4 credits)
- MATH 2490 Differential Equations (4 credits)
- STAT 2610 Applied Statistics (4 credits)

## Mathematics Courses

**MATH 0800 Intermediate Algebra (3 credits)**
An algebra course designed for students with an insufficient algebraic background for CS 1309, MATH 1100, MATH 1107, or MATH 1170. This course must be taken for a letter grade and, to use this course as a prerequisite for MATH 1100 or MATH 1107, a grade of C or better must be achieved, and to use this course as a prerequisite for CS 1309 or MATH 1170, a grade of B or better must be achieved. Credits are not applicable towards graduation. Topics include solving linear and quadratic equations, applications, linear inequalities, factoring, operations on polynomials, rational and radical expressions, and graphing linear equations.

**MATH 1011 Mathematics for Elementary School Teachers I (3 credits)**
This course meets the new BOT fundamental topics in arithmetic competencies. These topics include addition, subtraction, multiplication, and division of whole numbers; number theory related to fractions; decimals; and integers. This is the first of two mathematics courses providing the background for teaching in the elementary school. Emphasizes the use of mathematics manipulatives for modeling the basic operations. Prerequisite: Elementary education major or consent of instructor.

**MATH 1013 Mathematics for Elementary School Teachers II (3 credits)**
This course meets the new BOT introduction to higher mathematics competencies. These topics include geometry, discrete mathematics, probability, and statistics. This is the second of two mathematics courses providing the background for teaching in the elementary school. Emphasizes the use of mathematics manipulatives for modeling the basic concepts. Prerequisite: MATH 1011.

**MATH 1100 Mathematical Reasoning (3 credits)**
Mathematical reasoning and algebraic concepts applied to a selection of topics, which may include the mathematics of social choice, and the mathematics of management, geometry, and problem solving. Descriptive statistics and introductory probability and inferential statistics. A graphing calculator is required. Not open to students who have completed Math 1107 or Math 1170. Prerequisites: Two years of high school algebra and an appropriate score on the Mathematics Placement Test or completion of MATH 0800 with a grade of C or better. Liberal Education Category 4.

**MATH 1107 Introduction to Mathematical Sciences (3 credits)**
This course integrates the study of algebra, statistics, and computing in a laboratory-instruction environment. Topics include functions, graphical and tabular analysis, rate of change, syntax and semantics, the process of computing, data manipulation, sampling, statistical measures, basic probability, and correlation. Examples are drawn from a wide range of disciplines and content is taught within the framework of discipline-specific examples. Students learn to use the software package Microsoft Excel. Not open to students who have completed Math 1100 or Math 1170. Prerequisites: Two years of high school algebra and an appropriate score on the Mathematics Placement Test or MATH 0800 with a grade of C or better. Liberal Education Goal Area 4.

**MATH 1120 Environmental Mathematics (3 credits)**
This course will explore topics in which mathematics is used to investigate and inform decisions about environmental issues. Environmental issues addressed may include a study of population change, geoscience topics as related to economics and water resources, the average temperature of the earth, and data about the environment. Mathematical concepts may include iterative functions, unit conversion and statistics. Liberal Education Goal Areas 4 & 10 (Option B)

**MATH 1170 College Algebra (4 credits)**
Problem solving with linear, quadratic, rational and absolute value equations and inequalities; function notation and inverses; graphs of relations and functions; polynomial, rational, exponential, and logarithmic functions and applications; systems of equations and inequalities, matrices. Prerequisites: Successful completion of MATH 0800 with a grade of B or better, or three years of high school mathematics (including two years of algebra) and an appropriate score on the Mathematics Placement Test. Liberal Education Goal Area 4.

**MATH 1180 Trigonometry (3 credits)**
Trigonometric functions, identities, equations, and applications. Prerequisites: Successful completion of Math 1170, or 3 years of high school math (including two years of algebra), and an appropriate score on the Mathematics Placement Test. Liberal Education Goal Area 4.

**MATH 1470 Precalculus (5 credits)**
Intended to provide the essential mathematical background needed in calculus. Topics include equation solving, functions (including polynomial, rational, exponential, logarithmic, trigonometric, and inverse trigonometric), identities, applications, and parametric equations. A graphing calculator is required. Prerequisites: Three years of high school mathematics (including two years of algebra with a half year of trigonometry strongly recommended) and an appropriate score on the Mathematics Placement Test, or completion of MATH 1170 with a grade of C or better. Liberal Education Goal Area 4.

**MATH 2210 Discrete Mathematics (4 credits)**
Symbolic logic, number concepts, mathematical induction, set theory, relations and functions, graphs, trees, recurrence relations, and complexity of algorithms. Prerequisites: CS 1309 or Math 1470 or higher or three years of high school mathematics (including two years of algebra) and an appropriate score on the Mathematics Placement Test. Prerequisites: CS 1309 or (CS 1107 and CS 1108) or Math 1470 or higher or three years of high school mathematics (including two years of algebra) and an appropriate score on the Mathematics Placement Test.

**MATH 2471 Calculus I (5 credits)**
Limits, differentiation and integration of algebraic and trigonometric functions; applications of the derivative and curve sketching; applications of integration. A graphing calculator is required. Prerequisite: An appropriate ACT math subscore or Mathematics Placement Test score or a grade of C or better in MATH 1470 or grades of C or better in both MATH 1170 and MATH 1180 or consent of instructor. Liberal Education Goal Area 4.

**MATH 2472 Calculus II (5 credits)**
Differentiation and integration of transcendental functions, techniques of integration, infinite sequences and series, parametric equations, polar coordinates, analytic geometry, and vectors. A graphing calculator is required. Prerequisite: A grade of C or better in MATH 2471. Liberal Education Goal Area 4.

**MATH 2480 Multivariable Calculus (4 credits)**
Three dimensional analytic geometry, spherical, and cylindrical coordinate systems, vectors, partial derivatives, and multiple integrals. A graphing calculator is required. Prerequisite: Successful completion of MATH 2472.

**MATH 2490 Differential Equations (4 credits)**
Ordinary differential equations including first order and second order linear equations, series solutions, Laplace transformations, existence and uniqueness theory, systems of linear and nonlinear equations, dynamical systems and applications. A graphing calculator is required. Prerequisite: MATH 2472.

**MATH 3064 Number Concepts for Teachers (4 credits)**
This course provides a background in number concepts that are pertinent to school mathematics. Topics include scientific notation, number sense, properties of integers, prime and composite numbers, divisors, GCDs, LCMs, the number of divisors, the sum of divisors, the Euclidean Algorithm, famous unsolved problems, finite mathematical systems, modular arithmetic, introductory graph theory and applications, permutations, combinations, sorting, congruences, sequences, direct and indirect proofs, mathematical induction, and traveling salesman problem and algorithms. Emphasis will be given to problem solving techniques as they relate to number concepts. Prerequisite MATH 1011 or equivalent or consent of instructor. Might not be offered every year.

**MATH 3065 Mathematical Foundations of Algebra for Teachers (4 credits)**
This course investigates concepts of patterns, relations, and functions. Prerequisites: MATH 1011 or equivalent or consent of instructor. Might not be offered every year.

**MATH 3066 Geometry and Technology in the Mathematics Classroom (4 credits)**
This course examines the concepts of patterns, shape and space; spatial sense; plane, solid, and coordinate geometry systems; generalizing geometric principals; limits, derivatives and integrals; and appropriate use of technology in the classroom. Prerequisites: MATH 1011 or equivalent or consent of instructor; (Might not be offered every year.)

**MATH 3067 Data Investigations, Probability, and Statistics for Teachers (4 credits)**
This course explores data investigations and concepts of randomness and uncertainty. The collection, display, analysis, and interpretation of data are studied. Additional topics include randomness, sampling, probability in simple and compound events, the prediction of outcomes using a variety of techniques, and the comparison of theoretical and empirical results of experiments. Prerequisite MATH 1011 or equivalent or consent of instructor.

**MATH 3260 Mathematical Problem Solving (3 credits)**
Investigation of problems and the process of problem solving across a variety of mathematical areas. Development and application of strategies used to solve problems with emphasis on multistep and nonroutine problems. Application of the process of mathematical modeling to real situations. Prerequisite: MATH 2210. (Might not be offered every year.)

**MATH 3310 Linear Algebra (4 credits)**
Systems of linear equations, linear transformations, matrix operations, vector spaces, eigenvalues and eigenvectors, orthogonality, and applications. Prerequisites: MATH 2210 and MATH 2472 or consent of instructor.

**MATH 3440 Introduction to Fractals & Chaos (3 credits)**
An introduction to the topics of fractal geometry, chaos, and dynamic mathematical systems. Topics included are iteration, fractals and fractal dimension, iterated function systems, Julia set, Mandelbrot set, and bifurcation. Prerequisites: MATH 2210 and MATH 2472. (Might not be offered every year.)

**MATH 3560 Classical and Modern Geometry (3 credits)**
Euclidean and non-Euclidean geometry, axiomatic systems, the geometry of solids, transformations, measurement, and fractal geometry. Prerequisite: MATH 2210.

**MATH 3710 Mathematical Modeling (3 credits)**
Mathematical modeling of applications that involve difference equations, matrices, probability, differentiation, and integration. Applications may be chosen from among the biological and p hysical sciences, economics, the social sciences, or other areas of interest. A graphing calculator is required. Prerequisite: MATH 2472. (Might not be offered every year.)

**MATH 3720 Numerical Methods (3 credits)**
Root finding techniques, fixed point iteration, polynomial interpolation, methods for solving linear and nonlinear systems of equations, numerical integration and differentiation, numerical solutions of differential equations, and the method of steepest descent. Prerequisite: MATH 2472.

**MATH 3820 History of Mathematics (3 credits)**
Historical investigation and presentation of the sources and growth of mathematical knowledge and principles, including Peano's axioms, the Axiom of Choice, and Russell's Paradox. Prerequisites: Junior or senior status and consent of the instructor. (Might not be offered every year.)

**MATH 3961 Special Purpose Instruction (3 credits)**
A course intended for specific groups or organizations outside the University community.

**MATH 3962 Special Purpose Instruction (3 credits)**
A course intended for specific groups or organizations outside the University community.

**MATH 3963 Special Purpose Instruction (3 credits)**
A course intended for specific groups or organizations outside the University community.

**MATH 3964 Special Purpose Instruction (3 credits)**
A course intended for specific groups or organizations outside the University community.

**MATH 3965 Special Purpose Instruction (3 credits)**
A course intended for specific groups or organizations outside the University community.

**MATH 3966 Special Purpose Instruction (3 credits)**
A course intended for specific groups or organizations outside the University community.

**MATH 3967 Special Purpose Instruction (3 credits)**
A course intended for specific groups or organizations outside the University community.

**MATH 3968 Special Purpose Instruction (3 credits)**
A course intended for specific groups or organizations outside the University community.

**MATH 3969 Special Purpose Instruction (3 credits)**
A course intended for specific groups or organizations outside the University community.

**MATH 4240 Number Theory (3 credits)**
Properties of integers, primes and their distribution, linear and quadratic congruences, number-theoretic functions, Diophantine equations, Fibonacci numbers, primitive roots and quadratic reciprocity. Prerequisite: MATH 2210. (Might not be offered every year.)

**MATH 4350 Abstract Algebra (3 credits)**
A study of abstract algebraic systems with an emphasis on the development of number systems, properties of polynomials, rings, integral domains and fields. Prerequisites: MATH 3310. (Might not be offered every year.)

**MATH 4371 Modern Algebra (3 credits)**
A study of abstract algebraic systems with an emphasis on groups and an introduction to rings. Prerequisite: MATH 3310.

**MATH 4410 Introduction to Analysis (3 credits)**
Functions, sequences, and properties of limits. Topics from calculus including continuity, differentiation, and integration. Open and closed sets, cluster points, and other topological properties. Prerequisites: MATH 2210 and MATH 2472.

**MATH 4470 Advanced Calculus (3 credits)**
Properties of limits, vector valued functions, infinite series, Taylor series, uniform convergence, improper integrals, convergence in the mean and Fourier series. Prerequisite: MATH 2210 and MATH 2480. (Might not be offered every year.)

**MATH 4760 Topics in Applied Mathematics (3 credits)**
This course focuses on an advanced topic from applied mathematics. Possible foci include operations research, cryptography, computational science, and bioinformatics. May be repeated for credit with instructor permission. Prerequisite: MATH 2472. (Might not be offered every year.)

### All-University Courses

The course numbers listed below, not always included in the semester class schedule, may be registered for by consent of the advisor, instructor, or department chair, or may be assigned by the department when warranted. Individual registration requires previous arrangement by the student and the completion of any required form or planning outline as well as any prerequisites.

1910, 2910, 3910, 4910 DIRECTED INDEPENDENT STUDY
1920, 2920, 3920, 4920 DIRECTED GROUP STUDY
1930, 2930, 3930, 4930 EXPERIMENTAL COURSE
1940, 2940, 3940, 4940 IN-SERVICE COURSE
1950, 2950, 3950, 4950 WORKSHOP, INSTITUTE, TOUR
1960, 2960, 3960, 4960 SPECIAL PURPOSE INSTRUCTION
1970, 2970, 3970, 4970 INTERNSHIP
1980, 2980, 3980, 4980 RESEARCH
1990, 2990, 3990, 4990 THESIS

## Statistics Courses

**STAT 2610 Applied Statistics (4 credits)**
A nontheoretical introduction to statistics with an emphasis on applications in a variety of disciplines. Topics include measures of central tendency, position and dispersion; basic probability; hypothesis testing; estimation; analysis of variance; linear correlation and regression; nonparametric statistics. Prerequisite: Three years of high school mathematics (including two years of algebra) and an appropriate score on the Mathematics Placement Test, or completion of MATH 1170 or higher. Liberal Education Goal Area 4.

**STAT 3610 Time Series Analysis (3 credits)**
Linear time models, seasonal models, stationary models, moving average, autoregressive and ARIMA models, model identification, confidence intervals and testing, forecasting and error analysis. Prerequisites: (MATH 2472 and STAT 2610) or STAT 3631. (Might not be offered every year.)

**STAT 3631 Probability and Statistics I (4 credits)**
Probability of finite sample spaces, discrete and continuous probability distributions, exploratory data analysis, statistical models. Prerequisites: MATH 2472.

**STAT 3632 Probability and Statistics II (3 credits)**
Multivariable distributions, sampling distribution theory, estimation, hypothesis testing, regression and correlation. Prerequisites: MATH 2480 and STAT 3631. (Might not be offered every year.)

**STAT 3650 Probability and Statistics for Secondary Teachers (4 credits)**
Topics include descriptive statistics and graphical representations, basic probability and commonly encountered distributions, random variables, expectation and variance, sampling theory, and inferential statistics including univariate and bivariate data. Calculus is employed in the development of these concepts. Technology is used extensively to motivate and explain concepts and techniques. The course emphasizes and models exercises and pedagogy appropriate for the secondary school classroom. Prerequisite: MATH 2471.

**STAT 3660 Statistics for the Health Sciences (3 credits)**
Introduction to descriptive and inferential statistics in the context of the health sciences. Covers data types, methods for summarizing and displaying data, measures of central tendency and variability, hypothesis testing including the analysis of variance and nonparametric techniques, correlation and regression. Students learn to use the statistical software package SPSS for data analysis. Prerequisite: MATH 1170 or consent of instructor.

### All-University Courses

The course numbers listed below, not always included in the semester class schedule, may be registered for by consent of the advisor, instructor, or department chair, or may be assigned by the department when warranted. Individual registration requires previous arrangement by the student and the completion of any required form or planning outline as well as any prerequisites.

1910, 2910, 3910, 4910 DIRECTED INDEPENDENT STUDY
1920, 2920, 3920, 4920 DIRECTED GROUP STUDY
1930, 2930, 3930, 4930 EXPERIMENTAL COURSE
1940, 2940, 3940, 4940 IN-SERVICE COURSE
1950, 2950, 3950, 4950 WORKSHOP, INSTITUTE, TOUR
1960, 2960, 3960, 4960 SPECIAL PURPOSE INSTRUCTION
1970, 2970, 3970, 4970 INTERNSHIP
1980, 2980, 3980, 4980 RESEARCH
1990, 2990, 3990, 4990 THESIS

# Medical Laboratory Science

**Programs**

- Medical Laboratory Science, B.S. ((4 + 1 Option))*major*
- Medical Laboratory Science, B.S. ((3 + 1 Option))*major*

## Medical Laboratory Science, B.S. *major* (4 + 1 Option)

Required Credits: 108
Required GPA: 2.25

**REQUIRED CLINICAL STUDIES 4 + 1 OPTION**

NOTE: After completing the clinical year courses, students will receive a double major: Biology, B.S. and Medical Laboratory Science, B.S. In this option, the student completes a Biology, B.S., major at Bemidji State University, and then applies for admission to the clinical year program through the University of North Dakota or other affiliated institution (a 2.80 GPA overall and in science courses is one requirement for entrance into the clinical year program). This option may be of interest to students considering a pre-professional program such as pre-medicine, pre-veterinary medicine, or other pre-professional area. Students who fail to gain admission to the professional school of their choice will have the option of pursuing a health-related career in Medical Laboratory Science.

**I REQUIRED BIOLOGY COURSES**

- BIOL 1211 Introductory Biology I (4 credits)
- BIOL 1212 Introductory Biology II (4 credits)
- BIOL 2110 Human Anatomy and Physiology (5 credits)
- BIOL 2360 Genetics (4 credits)
- BIOL 2610 General Ecology (3 credits)
- BIOL 3300 Introduction to Hematology (4 credits)
- BIOL 3380 Molecular Genetics: Theory and Practice (4 credits)
- BIOL 3580 Immunology (4 credits)
- BIOL 3710 Microbiology (4 credits)
- BIOL 4210 Parasitology (4 credits)

**II CAPSTONE PROJECT**

II CAPSTONE PROJECT The Biology capstone project, completed in the senior year, provides a culinating experience that integrates the knowledge and skills learned in previous courses and applies them to a scholarly activity. Examples of capstone projects may include original research projects, internships with state or federal agencies, shadowing experiences with professionals, or successfully passing professional/ graduate school entrance exams. The capstone project must be designed or chosen by the student in consultation with a faculty mentor or advisor, who must approve the project before work begins. Students should consult with their faculty mentor or advisor before their senior year commences. All capstone projects will include a written and oral component (except for professional/graduate school entrance exams).

The capstone project may be completed in one of the following ways (0-4 credits):

1. Students using a professional or graduate entrance exam as their capstone project must register for this course. Students must place in at least the 60th percentile on their exam to successfully complete this course.

- BIOL 4800 Advanced Project Certification (0 credit)

2. Complete BIOL 4894 OR BIOL 4895 (2 credits):

- BIOL 4894 Advanced Research Project I (2 credits)
- BIOL 4895 Advanced Research Project II (2 credits)

3. Complete BIOL 4894 and BIOL 4895 (2 credits each):

- BIOL 4894 Advanced Research Project I (2 credits)
- BIOL 4895 Advanced Research Project II (2 credits)

**III REQUIRED COURSES IN RELATED FIELDS**

COMPLETE THE FOLLOWING COURSES:

- CHEM 2211 Principles of Chemistry I (4 credits)
- CHEM 2212 Principles of Chemistry II (4 credits)
- CHEM 3311 Organic Chemistry I (3 credits)
- CHEM 3312 Organic Chemistry II (3 credits)
- CHEM 3371 Organic Chemistry Laboratory I (1 credit)
- CHEM 3372 Organic Chemistry Laboratory II (1 credit)
- CHEM 4411 Biochemistry I (3 credits)
- CHEM 4471 Biochemistry Laboratory I (1 credit)

- PHYS 1101 General Physics I (4 credits)
  *or* PHYS 2101 Physics I (5 credits)
- PHYS 1102 General Physics II (4 credits)
  *or* PHYS 2102 Physics II (5 credits)

- STAT 2610 Applied Statistics (4 credits)
  *or* PSY 3401 Basic Statistics for Research (4 credits)

**IV REQUIRED CLINICAL STUDIES**

Clinical year courses, taken after the senior year beginning with summer term, are taken through entrance into the clinical year program at the University of North Dakota or at affiliated hospitals. NOTE: A clinical year position is not guaranteed. Students must apply for a clinical year position in October of the junior year. Please see advisor regarding the clinical year of study.

## Medical Laboratory Science, B.S. *major* (3 + 1 Option)

In this option, the student completes the required Medical Laboratory Science and Liberal Education courses at Bemidji State University, and then applies for admission to the clinical year program through the University of North Dakota

or other affiliated institution (a 2.80 GPA overall and in science courses is one requirement for entrance into the clinical year program).

The Medical Laboratory Science student must consult with the Medical Laboratory Science advisor at the start of the academic program and regularly throughout the course of study. The student must complete the Bemidji State University Liberal Education requirements before the year of clinical study.

Required Credits: 84
Required GPA: 2.25

**I REQUIRED COURSES**

COMPLETE THE FOLLOWING COURSES:

- BIOL 1211 Introductory Biology I (4 credits)
- BIOL 1212 Introductory Biology II (4 credits)
- BIOL 2110 Human Anatomy and Physiology (5 credits)
- BIOL 3300 Introduction to Hematology (4 credits)
- BIOL 3380 Molecular Genetics: Theory and Practice (4 credits)
- BIOL 3580 Immunology (4 credits)
- BIOL 3710 Microbiology (4 credits)
- BIOL 4210 Parasitology (4 credits)
- CHEM 2211 Principles of Chemistry I (4 credits)
- CHEM 2212 Principles of Chemistry II (4 credits)
- CHEM 3311 Organic Chemistry I (3 credits)
- CHEM 3371 Organic Chemistry Laboratory I (1 credit)
- CHEM 4411 Biochemistry I (3 credits)
- CHEM 4471 Biochemistry Laboratory I (1 credit)

SELECT 1 OF THE FOLLOWING COURSES:

- MATH 1170 College Algebra (4 credits)
- MATH 1470 Precalculus (5 credits)

**II REQUIRED CLINICAL STUDIES**

Clinical year courses, taken during the senior year beginning with summer term, are taken through entrance into the clinical year program at the University of North Dakota or at affiliated hospitals.

NOTE: A clinical year position is not guaranteed. Students must apply for a clinical year position in October of the junior year. Please see advisor regarding the clinical year of study.

**SUGGESTED SEMESTER SCHEDULE FOR MEDICAL LABORATORY SCIENCE MAJOR, B.S.**

The following is a list of Medical Laboratory Science courses arranged by year. This suggested schedule is intended to help students plan their courses without course conflicts. Courses that are asterisked(*) are recommended but not required.

Freshman

- BIOL 1211 Introductory Biology I (4 credits)
- BIOL 1212 Introductory Biology II (4 credits)
- BIOL 2110 Human Anatomy and Physiology (5 credits)
- CHEM 2211 Principles of Chemistry I (4 credits)
- CHEM 2212 Principles of Chemistry II (4 credits)
- ENGL 1151 Composition (3 credits)
- ENGL 2152 Argument and Exposition (3 credits)
- MATH 1170 College Algebra (4 credits)
  *or* MATH 1470 Precalculus (5 credits)

Sophomore

- BIOL 2360 Genetics (4 credits)
- BIOL 3380 Molecular Genetics: Theory and Practice (4 credits)
- BIOL 3710 Microbiology (4 credits)
- BIOL 3755 Medical Microbiology (3 credits)
- CHEM 3311 Organic Chemistry I (3 credits)
- *CHEM 3312 Organic Chemistry II (3 credits)
- CHEM 3371 Organic Chemistry Laboratory I (1 credit)
- *CHEM 3372 Organic Chemistry Laboratory II (1 credit)

Junior

- *BIOL 3300 Introduction to Hematology (4 credits)
- BIOL 3580 Immunology (4 credits)
- BIOL 4210 Parasitology (4 credits)
- CHEM 4411 Biochemistry I (3 credits)
- CHEM 4471 Biochemistry Laboratory I (1 credit)
- STAT 2610 Applied Statistics (4 credits)
  *or* PSY 3401 Basic Statistics for Research (4 credits)

Senior

- Clinical year courses

# Modern Languages

Language is more than a mode of communication. It is the primary means of understanding a culture, a people, a way of life. Studying a second language gives us a perspective on our own language and culture, and prepares us to be knowledgeable and competent citizens of the world. In addition, those who undertake the study of languages experience the satisfaction and pleasure of learning what language is and how it works.

While Americans are traditionally viewed as monolingual, other countries routinely include language study as an essential part of a general education. In a world that is increasingly interconnected and interrelated, the development of a globally educated populace is crucial. Second language learning is a vital part of such an education.

Second language study can lead to career positions such as teacher, travel consultant, translator, and international entrepreneur. Languages also constitute an important second skill for many jobs in business, industry, government, and human services, and may be a key to increasing potential for personal growth and advancement.

**Programs**

- Spanish Education, B.S. ((Teacher Licensure))*major*
- Spanish, B.A. *major*
- Ojibwe *minor*
- Spanish *minor*
- Ojibwe Language Instruction *cert*

**Career Directions**

Airline Consultant
Bank Consultant/Employee
Education
Export/Import Employee
International Business
Translator
Also: Graduate Study

**Preparation**

*Recommended High School Courses*
English

Foreign Languages

## Spanish Education, B.S. *major* (Teacher Licensure)

***Students are no longer being accepted to this program Please contact the Education or Modern Language Department for additional information.***

Required Credits: 64
Required GPA: 2.50

**I REQUIRED CORE COURSES**

COMPLETE THE FOLLOWING COURSES:

- ML 3470 Methods Of Teaching Modern Languages (4 credits)
- ML 3430 Linguistics (3 credits)
- SPAN 3311 Composition and Conversation (3 credits)
- SPAN 3312 Advanced Readings and Conversation (3 credits)
- SPAN 4430 Spanish Grammar and Linguistics (1 credit)

SELECT 11 SEMESTER CREDITS FROM SPANISH COURSES NUMBERED 3300 OR ABOVE:

**II REQUIRED ELECTIVES**

SELECT 6 SEMESTER CREDITS WITH CONSENT OF ADVISOR

**REQUIRED PROFESSIONAL EDUCATION COURSES**

COMPLETE THE FOLLOWING COURSES:

- ED 3100 Introduction to the Foundations of Public School Education (3 credits)
- ED 3110 Educational Psychology (3 credits)
- ED 3140 Human Relations In Education (3 credits)
- ED 3350 Pedagogy: Planning for Instruction (3 credits)
- ED 3780 Adaptation and Management: Designing the Learning Environment (3 credits)
- ED 4737 Content Area Reading (3 credits)
- ED 4799 The Professional Teacher (1 credit)
- HLTH 3400 Health and Drugs in Society (2 credits)

Complete 12 credits of student teaching:

- ED 4830 Student Teaching - Secondary (1-12 credits)

## Spanish, B.A. *major*

Required Credits: 28
Required GPA: 2.25

**I REQUIRED CORE COURSES**

SELECT 22 SEMESTER CREDITS FROM SPANISH COURSES NUMBERED 3300 OR ABOVE:

**II REQUIRED ELECTIVES**

SELECT 6 SEMESTER CREDITS WITH CONSENT OF ADVISOR

**SUGGESTED SEMESTER SCHEDULE FOR SPANISH MAJOR, B.A.**

The following is a list of required language courses arranged by year. This schedule is intended to help students plan their courses in an orderly fashion; however, these are only suggestions and this schedule is flexible. Students entering with previous high school language background may begin at the 2000 or 3000 level. See department chair for placement testing.

The following liberal education courses are recommended for students majoring in a modern language: European and/or other appropriate History courses, Philosophy, European and/or appropriate Art History courses, folk dance, Economics, or Political Science.

Freshman

- SPAN 1111 Elementary Spanish I (4 credits)
- SPAN 1112 Elementary Spanish II (4 credits)
- Second major or minor course work
- Liberal Education requirements

Sophomore

- SPAN 2211 Intermediate Spanish I (3 credits)
- SPAN 2212 Intermediate Spanish II (3 credits)
- Second major or minor course work
- Liberal Education requirements

Junior

- SPAN 3311 Composition and Conversation (3 credits)
- SPAN 3312 Advanced Readings and Conversation (3 credits)
- Second major or minor course work
- Complete Liberal Education requirements

Senior

- SPAN 4427 Spanish Culture and Civilization (3 credits)
- Spanish 3311 or above
- Complete second major or minor course work

## Ojibwe *minor*

Required Credits: 12
Required GPA: 2.00

**I REQUIRED CORE COURSES**

COMPLETE THE FOLLOWING COURSES:

- OJIB 3311 Advanced Ojibwe I (4 credits)
- OJIB 3312 Advanced Ojibwe II (4 credits)

**II REQUIRED STUDY**

SELECT 1 OF THE FOLLOWING COURSES:

- OJIB 3213 Ojibwe Oral Literature (4 credits)
- OJIB 3400 Instruction of Ojibwe Language (4 credits)

## Spanish *minor*

Required Credits: 14
Required GPA: 2.00

**REQUIRED CORE COURSES**

SELECT 14 SEMESTER CREDITS FROM SPANISH COURSES NUMBERED 3300 OR ABOVE

## Ojibwe Language Instruction *cert*

Multiple Credentials
Any additional major, minor or certificate in a degree must have at least 6 credits of course work not used to meet the requirements of another major, minor or certificate in the degree.

Required Credits: 12
Required GPA: 2.00

**I REQUIRED CORE COURSES**

COMPLETE THE FOLLOWING COURSES:

- OJIB 3311 Advanced Ojibwe I (4 credits)
- OJIB 3312 Advanced Ojibwe II (4 credits)

**II REQUIRED STUDY**

COMPLETE THE FOLLOWING COURSE:

- OJIB 3400 Instruction of Ojibwe Language (4 credits)

## Modern Languages Courses

**ML 1111 American Sign Language 1 (3 credits)**
In this introductory course, students learn basic sign vocabulary, grammatical structure, and fingerspelling. Introduction to the Deaf community as a linguistic and cultural minority in the United States. Explores differences in hearing and Deaf cultures throughout the world. Liberal Education Goal Area 8.

**ML 1112 American Sign Language 2 (3 credits)**
In this introductory course, students continue to learn basic sign vocabulary, grammatical structure, and fingerspelling. Students deepen their knowledge of the Deaf community as a linguistic and cultural minority in the United States. Explores differences in hearing and Deaf cultures throughout the world. Prerequisite: ED 1111 or ML 1111. Liberal Education Goal Area 8.

**ML 1911 Directed Independent Study (3 credits)**
Arranged individual study.

**ML 3430 Linguistics (3 credits)**
The general linguistic topics of phonology, morphology, syntax, lexicography, historical linguistics, and language acquisition theory. Students explore various topics in the language of their interest (German, Spanish, Ojibwe, English).

**ML 3470 Methods Of Teaching Modern Languages (4 credits)**
Principles and practices in modern language teaching at both the high school and elementary levels. Prerequisites: GER 3312 or OJIB 3312 or SPAN 3312 or consent of instructor and ED 3110.

### All-University Courses

The course numbers listed below, not always included in the semester class schedule, may be registered for by consent of the advisor, instructor, or department chair, or may be assigned by the department when warranted. Individual registration requires previous arrangement by the student and the completion of any required form or planning outline as well as any prerequisites.

1910, 2910, 3910, 4910 DIRECTED INDEPENDENT STUDY
1920, 2920, 3920, 4920 DIRECTED GROUP STUDY
1930, 2930, 3930, 4930 EXPERIMENTAL COURSE
1940, 2940, 3940, 4940 IN-SERVICE COURSE
1950, 2950, 3950, 4950 WORKSHOP, INSTITUTE, TOUR
1960, 2960, 3960, 4960 SPECIAL PURPOSE INSTRUCTION
1970, 2970, 3970, 4970 INTERNSHIP
1980, 2980, 3980, 4980 RESEARCH
1990, 2990, 3990, 4990 THESIS

## Ojibwe Courses

**OJIB 1100 Ojibwe Culture (4 credits)**
Surveys aspects of Ojibwe culture and history from pre-contact to the present. Liberal Education Goal Areas 6 & 7. (Might not be offered every year.)

**OJIB 1111 Elementary Ojibwe I (4 credits)**
The language of the Ojibwe with an emphasis on oral-aural skills as well as non-linguistic aspects of cultural background and surroundings. Prerequisite: Please consult with program faculty. Liberal Education Goal Area 8.

**OJIB 1112 Elementary Ojibwe II (4 credits)**
The language of the Ojibwe with an emphasis on oral-aural skills as well as non-linguistic aspects of cultural background and surroundings. Prerequisite: OJIB 1111 or consent of instructor. Liberal Education Goal Area 8.

**OJIB 2211 Intermediate Ojibwe I (4 credits)**
The language of the Ojibwe with continued emphasis on oral-aural skills as well as non-linguistic aspects of cultural background and surroundings. Prerequisite: OJIB 1112 or consent of instructor. Liberal Education Goal Area 8.

**OJIB 2212 Intermediate Ojibwe II (4 credits)**
The language of the Ojibwe with continued emphasis on oral-aural skills as well as non-linguistic aspects of cultural background and surroundings. Prerequisite: OJIB 2211 or consent of instructor. Liberal Education Goal Area 8.

**OJIB 3213 Ojibwe Oral Literature (4 credits)**
Students meet for the first several weeks to discuss, learn, and be tested on their knowledge of Ojibwe oral literature and methodologies for its collection. The last several weeks of the course are designed for students to meet, record, transcribe, translate, and analyze oral literature that they themselves collect from fluent speakers in the region. Guidance will be given at all stages. Prerequisite: OJIB 2212 or consent of instructor. Liberal Education Goal Area 6 (Might not be offered every year.)

**OJIB 3311 Advanced Ojibwe I (4 credits)**
Continued development of all skills in Ojibwe with special attention to grammar and oral tradition. Prerequisite: OJIB 2212 or consent of instructor. Liberal Education Goal Area 8.

**OJIB 3312 Advanced Ojibwe II (4 credits)**
Continued development of all skills in Ojibwe with special attention to grammar and oral tradition. Prerequisite: OJIB 3311 or consent of instructor. Liberal Education Goal Area 8.

**OJIB 3400 Instruction of Ojibwe Language (4 credits)**
Students meet for the first several weeks to discuss, learn, and be tested on their knowledge of Ojibwe curriculum, teaching strategies, and grammar paradigms. The last several weeks of the course are designed for students to develop their own lesson plans or methodological research on the instruction of the Ojibwe language. Guidance will be given at all stages. Prerequisite: OJIB 3312 or consent of instructor. (Might not be offered every year.)

**OJIB 4430 Ojibwe Grammar and Linguistics (1 credit)**
The application of knowledge from ML 3430 Linguistics to the Ojibwe language. Intensive grammar review as needed. Emphasis on aspects of the language that enhance the teaching of Ojibwe to English-speaking students. Prerequisite: OJIB 3312 or consent of instructor.

### All-University Courses

The course numbers listed below, not always included in the semester class schedule, may be registered for by consent of the advisor, instructor, or department chair, or may be assigned by the department when warranted. Individual registration requires previous arrangement by the student and the completion of any required form or planning outline as well as any prerequisites.

1910, 2910, 3910, 4910 DIRECTED INDEPENDENT STUDY
1920, 2920, 3920, 4920 DIRECTED GROUP STUDY
1930, 2930, 3930, 4930 EXPERIMENTAL COURSE
1940, 2940, 3940, 4940 IN-SERVICE COURSE
1950, 2950, 3950, 4950 WORKSHOP, INSTITUTE, TOUR
1960, 2960, 3960, 4960 SPECIAL PURPOSE INSTRUCTION
1970, 2970, 3970, 4970 INTERNSHIP
1980, 2980, 3980, 4980 RESEARCH
1990, 2990, 3990, 4990 THESIS

## Spanish Courses

**SPAN 1100 Hispanic Culture And Spanish Language (1-3 credits)**
Students acquire a basic understanding of the Hispanic culture and language. This course is taught in English, but basic Spanish expressions and Hispanic customs are emphasized. It is particularly suitable for students who have never studied a foreign language. The multidisciplinary composition of this course complements the study of all academic areas including International Studies.

**SPAN 1111 Elementary Spanish I (4 credits)**
Study and practice of the four basic skills: listening, speaking, reading, and writing. Stress on pronunciation, basic grammatical forms, and language patterns. Special emphasis on the Hispanic culture and civilization. Liberal Education Goal Area 8.

**SPAN 1112 Elementary Spanish II (4 credits)**
Study and practice of the four basic skills: listening, speaking, reading, and writing. Stress on pronunciation, basic grammatical forms, and language patterns. Special emphasis on the Hispanic culture and civilization. Prerequisite: SPAN 1111 or consent of instructor. Liberal Education Goal Area 8.

**SPAN 2211 Intermediate Spanish I (3 credits)**
Continuation of practice in the development of the four basic language skills. Continued acquisition of grammatical forms. Strong emphasis on the culture and civilization of Spain and Latin America. Prerequisite: SPAN 1112 or consent of instructor. Liberal Education Goal Area 8.

**SPAN 2212 Intermediate Spanish II (3 credits)**
Continuation of practice in the development of the four basic language skills. Continued acquisition of grammatical forms. Strong emphasis on the culture and civilization of Spain and Latin America. Prerequisite: SPAN 2211 or consent of instructor. Liberal Education Goal Area 8.

**SPAN 3300 Study Abroad (1-18 credits)**
Variable semester credits up to 18 credits to be granted to students of Bemidji State University for resident study in Spanish language area.

**SPAN 3311 Composition and Conversation (3 credits)**
A course designed to refine the basic skills of understanding oral and written Spanish and improving the correct grammatical writing of Spanish. The emphasis is on Spanish composition through literature. Prerequisite: SPAN 2212 or consent of instructor. Liberal Education Goal Area 8.

**SPAN 3312 Advanced Readings and Conversation (3 credits)**
Continuation of the practice in the skills of speaking, listening, and writing, with emphasis on reading both Spanish and Latin American short stories and plays. Prerequisite: SPAN 3311 or consent of instructor. Liberal Education Goal Area 8.

**SPAN 3313 Spanish Conversation Workshop (1-4 credits)**
A course designed to refine the basic skills of understanding oral Spanish. Prerequisite: SPAN 2212 or consent of instructor; Corequisite: SPAN 3311 and SPAN 3312 or consent of instructor. (Might not be offered every year.)

**SPAN 3314 Spanish for the Professions (3 credits)**
A course designed to develop the Spanish vocabulary necessary for work in a specific field. Professional areas change as announced: medical professions, education, business and finance, social work, criminal justice, law and the courtroom. Prerequisites: SPAN 3311 and SPAN 3312 or consent of instructor. (Might not be offered every year.)

**SPAN 3315 Advanced Spanish Grammar Review (2 credits)**
A course for advanced students who need a systematic review of Spanish morphology and syntax. Emphasis on special problems such as accentuation, uses of the subjunctive, prepositions and pronouns, "ser/estar." Prerequisites: SPAN 2212 or SPAN 3311. (Might not be offered every year.)

**SPAN 4413 Hispanic Short Fiction (3 credits)**
A study of selected works of short fiction from Spain and Latin America. Prerequisite: SPAN 3312 or consent of instructor. (Might not be offered every year.)

**SPAN 4414 The Hispanic Novel (3 credits)**
A study of selected novels from Spain and Latin America. Prerequisite: SPAN 3312 or consent of instructor. (Might not be offered every year.)

**SPAN 4415 A Study of Selected Hispanic Drama (3 credits)**
A study of selected works. Prerequisite: SPAN 3312 or consent of instructor. (Might not be offered every year.)

**SPAN 4416 Hispanic Poetry (3 credits)**
A study of selected works. Prerequisite: SPAN 3312. (Might not be offered every year.)

**SPAN 4418 Medieval and Golden Age Literature (3 credits)**
A study of selected works of early Spanish literature and the Siglo de Oro and their social and cultural context. Prerequisite: SPAN 3312 or consent of instructor. (Might not be offered every year.)

**SPAN 4420 Twentieth Century Literature (3 credits)**
A study of selected works of twentieth century Spanish and Latin American authors and their social and cultural context. Prerequisite: SPAN 3312 or consent of instructor. (Might not be offered every year.)

**SPAN 4421 Women in Hispanic Literature and Culture (3 credits)**
A study of selected literature from a broad range of Hispanic women writers from antiquity to the present. Prerequisite: SPAN 3312 or consent of instructor. (Might not be offered every year.)

**SPAN 4422 Hispanic Literature and Culture in the United States (3 credits)**
A bilingual offering of selected works of authors of Hispanic literature in the United States. Prerequisite: ENGL 2152 or ENGL 3150. (Might not be offered every year.

**SPAN 4423 From Text to Image: Hispanic Film and Literature (3 credits)**
A study of the relationship between narrative and cinema in the Hispanic world. (Might not be offered every year.)

**SPAN 4426 Latin American Culture and Civilization (3 credits)**
History of Spanish American culture and civilization from antiquity to the present. Prerequisite: SPAN 3312 or consent of instructor. [Might not be offered every year.]

**SPAN 4427 Spanish Culture and Civilization (3 credits)**
History of Spanish culture and civilization from antiquity to the present. Prerequisite: SPAN 3312 or consent of instructor. (Might not be offered every year.)

**SPAN 4428 Modern Language Honors (2-4 credits)**
See Department Chair for course requirements. Prerequisite: SPAN 3312 or consent of instructor. (Might not be offered every year.)

**SPAN 4430 Spanish Grammar and Linguistics (1 credit)**
The application of knowledge from ML 3430 Linguistics to the Spanish language. Intensive grammar review as needed. Emphasis on aspects of the language that enhance the teaching of Spanish to English-speaking students. Corequisite: ML 3430.

## All-University Courses

The course numbers listed below, not always included in the semester class schedule, may be registered for by consent of the advisor, instructor, or department chair, or may be assigned by the department when warranted. Individual registration requires previous arrangement by the student and the completion of any required form or planning outline as well as any prerequisites.

1910, 2910, 3910, 4910 DIRECTED INDEPENDENT STUDY
1920, 2920, 3920, 4920 DIRECTED GROUP STUDY
1930, 2930, 3930, 4930 EXPERIMENTAL COURSE
1940, 2940, 3940, 4940 IN-SERVICE COURSE
1950, 2950, 3950, 4950 WORKSHOP, INSTITUTE, TOUR
1960, 2960, 3960, 4960 SPECIAL PURPOSE INSTRUCTION
1970, 2970, 3970, 4970 INTERNSHIP
1980, 2980, 3980, 4980 RESEARCH
1990, 2990, 3990, 4990 THESIS

# Music

The primary mission of the Music Department at Bemidji State University is to prepare students for professional careers in music. Accordingly, all students who wish to major in music must complete an audition (please contact the Music Department for details). The faculty recognizes the need for excellence within a broad liberal education, so the department places equal emphasis on music education, performance, and theoretical/historical study in its degree offerings. The department, an accredited institutional member of the National Association of Schools of Music, also maintains a cultural leadership and development role locally and regionally, while striving to achieve a national and international reputation.

The specific objectives of the Department of Music are

1. to provide students interested in teaching careers with the professional knowledge and skills necessary for success in the field;

2. to train students to become critical, independent, creative musicians with the necessary background in applied music (private instruction in voice/instrument), music theory, music history and literature, keyboard skills, sight-reading, and music technology; and to become full participants in music professions;

3. to provide all students of the university with opportunities to enrich themselves through participation in Music Department ensembles, academic courses, and applied lessons, and through attendance at concerts, recitals, and lectures;

4. to develop the creative potential of the region through workshops, performances, and a summer music camp.

**Programs**

- Music Education, B.S. (Vocal/classroom K-12 Specialization (Teacher Licensure))*major*
- Music Education, B.S. (Instrumental/classroom K-12 Specialization (Teacher Licensure))*major*
- Music, B.A. *major*
- Music, B.A. (Jazz Studies Emphasis)*major*
- Music, B.A. (Vocal Performance Emphasis)*major*
- Music, B.A. (Instrumental Performance Emphasis)*major*
- Music, B.A. (Piano Performance and Pedagogy Emphasis)*major*
- Music *minor*

**Career Directions**

Arts Administrator
Business
Composer
Conductor
Educator
Music Librarian
Musician
Performer
Vocalist
Also: Graduate Study

**Preparation**

*Recommended High School Courses*

Music Ensembles

Music Theory

Music Appreciation

*Recommended Activities*

Performance Groups

Private Music/Vocal Lessons

Attendance at Performances

Piano

*General Information and Requirements For All Music Majors and Minors*

*A Student Handbook outlining Department of Music procedures and policies is available in the Department of Music Office, Bangsberg 201.*

*All new majors and minors (including transfer students) are required to arrange for a personal interview with the department chair during the first week of classes. An advisor from the department will be assigned at that time.*

*All new music majors and minors must take the Music Theory and Ear training placement examination.*

*All music majors are required to register for a major performing organization each semester they are on campus.*

*A student may be required to validate course work that was completed more than seven (7) years prior to graduation and is to be included in the music major or minor. Only courses with grades of C or better may be validated. The student may be required to repeat such courses or take additional course work.*

*All B.A. music majors and minors are encouraged to pursue the study of a foreign language.*

*All music majors are required to give a Degree Recital during an academic term when they are enrolled at an appropriate level of applied instruction.*

## Music Education, B.S. *major*
## Vocal/classroom K-12 Specialization (Teacher Licensure)

Required Credits: 93
Required GPA: 2.50

**I REQUIRED MUSIC CORE COURSES**

COMPLETE THE FOLLOWING COURSE (REQUIRED 7 TIMES):

- MUS 1800 Performance Laboratory (0 credit)

COMPLETE THE FOLLOWING COURSES:
(Completion of these courses with a grade of "C" or better is required for all music degrees.)

- MUS 2110 World Music (2 credits)
- MUS 2201 Music Theory and Musicianship I (5 credits)
- MUS 2202 Music Theory and Musicianship II (5 credits)
- MUS 3201 Music Theory and Musicianship III (5 credits)
- MUS 3202 Music Theory and Musicianship IV (4 credits)
- MUS 3501 Music Technology I (2 credits)
- MUS 3618 Conducting Fundamentals (2 credits)
- MUS 3801 History and Literature of Music I (3 credits)
- MUS 3802 History and Literature of Music II (3 credits)

COMPLETE THE FOLLOWING COURSES:

- MUS 2310 Piano Proficiency (0 credit)
- MUS 3898 Degree Recital (0 credit)

**REQUIRED PROFESSIONAL EDUCATION COURSES**

COMPLETE THE FOLLOWING COURSES:

- ED 3100 Introduction to the Foundations of Public School Education (3 credits)
- ED 3110 Educational Psychology (3 credits)
- ED 3140 Human Relations In Education (3 credits)
- ED 3350 Pedagogy: Planning for Instruction (3 credits)
- ED 3780 Adaptation and Management: Designing the Learning Environment (3 credits)
- ED 4737 Content Area Reading (3 credits)
- ED 4799 The Professional Teacher (1 credit)
- HLTH 3400 Health and Drugs in Society (2 credits)

Complete 12 credits of student teaching:

- ED 4830 Student Teaching - Secondary (1-12 credits)

**VOCAL AND CLASSROOM MUSIC**

REQUIRED CORE COURSES

NOTE: Piano majors replace MUS 3417 with MUS 4106, Piano Pedagogy I (2 credits). MUS 4106 requires consent of instructor.

Select two of the following methods courses(2 credits):

- MUS 1348 String Methods (1 credit)
- MUS 1368 High Brass Methods (1 credit)
- MUS 1369 Low Brass Methods (1 credit)
- MUS 1378 Percussion Methods (1 credit)
- MUS 1388 Single Reeds Methods (1 credit)
- MUS 1389 Double Reeds/Flute Methods (1 credit)

COMPLETE THE FOLLOWING COURSES:

Note: Piano majors replace MUS 2417 with MUS 4106,which requires consent of instructor.

- MUS 2417 Diction For Singers I (2 credits)
- MUS 2418 Diction for Singers II (2 credits)
- MUS 2607 Music Education I: Introduction (2 credits)
- MUS 3300 Piano Accompanying (2 credits)
- MUS 3400 Vocal Pedagogy (1 credit)
- MUS 3607 Music Education II: Elementary Methods (3 credits)
- MUS 3638 Choral Conducting (2 credits)
- MUS 4607 Music Education III: Secondary Methods (2 credits)
- MUS 4811 Choral Notation and Arranging (1 credit)
- MUS 4812 Choral Studies (2 credits)

REQUIRED MAJOR APPLIED AREA
NOTE: All music majors are required to register for applied area lessons until the Degree Recital is passed.

COMPLETE THE FOLLOWING COURSE:

- MUS 2138 Voice, Level II (1 credit)

COMPLETE THE FOLLOWING COURSE:

- MUS 3138 Voice, Level III (1 credit)

REQUIRED VOCAL PERFORMING ORGANIZATIONS
NOTE: All music majors are required to participate in a major ensemble every semester they are enrolled. MUS 4800 and 4810 are by audition only.

Select 6 semester credits from the following courses:

- MUS 3800 Varsity Singers (1-2 credits)
- MUS 4800 Bemidji Choir (1-2 credits)
- MUS 4810 Chamber Singers (1-2 credits)

## Music Education, B.S. *major*
## Instrumental/classroom K-12 Specialization (Teacher Licensure)

Required Credits: 93
Required GPA: 2.50

**I REQUIRED MUSIC CORE COURSES**

COMPLETE THE FOLLOWING COURSE (REQUIRED 7 TIMES):

- MUS 1800 Performance Laboratory (0 credit)

COMPLETE THE FOLLOWING COURSES:
(Completion of these courses with a grade of "C" or better is required for all music degrees.)

- MUS 2110 World Music (2 credits)
- MUS 2201 Music Theory and Musicianship I (5 credits)
- MUS 2202 Music Theory and Musicianship II (5 credits)
- MUS 3201 Music Theory and Musicianship III (5 credits)

- MUS 3202 Music Theory and Musicianship IV (4 credits)
- MUS 3501 Music Technology I (2 credits)
- MUS 3618 Conducting Fundamentals (2 credits)
- MUS 3801 History and Literature of Music I (3 credits)
- MUS 3802 History and Literature of Music II (3 credits)

COMPLETE THE FOLLOWING COURSES:

- MUS 2310 Piano Proficiency (0 credit)
- MUS 3898 Degree Recital (0 credit)

**REQUIRED PROFESSIONAL EDUCATION COURSES**

COMPLETE THE FOLLOWING COURSES:

- ED 3100 Introduction to the Foundations of Public School Education (3 credits)
- ED 3110 Educational Psychology (3 credits)
- ED 3140 Human Relations In Education (3 credits)
- ED 3350 Pedagogy: Planning for Instruction (3 credits)
- ED 3780 Adaptation and Management: Designing the Learning Environment (3 credits)
- ED 4737 Content Area Reading (3 credits)
- ED 4799 The Professional Teacher (1 credit)
- HLTH 3400 Health and Drugs in Society (2 credits)

Complete 12 credits of student teaching:

- ED 4830 Student Teaching - Secondary (1-12 credits)

**INSTRUMENTAL AND CLASSROOM MUSIC SPECIALIZATION**

Note: All music majors are required to register for applied area lessons until the Degree Recital is passed.

REQUIRED CORE COURSES
COMPLETE THE FOLLOWING COURSES:

- MUS 1138 Introduction to Voice (1 credit)
- MUS 1348 String Methods (1 credit)
- MUS 1368 High Brass Methods (1 credit)
- MUS 1369 Low Brass Methods (1 credit)
- MUS 1378 Percussion Methods (1 credit)
- MUS 1388 Single Reeds Methods (1 credit)
- MUS 1389 Double Reeds/Flute Methods (1 credit)
- MUS 2607 Music Education I: Introduction (2 credits)
- MUS 3100 Jazz Improvisation (1 credit)
- MUS 3607 Music Education II: Elementary Methods (3 credits)
- MUS 3628 Instrumental Conducting (2 credits)
- MUS 4100 Instrumental Arranging (1 credit)
- MUS 4607 Music Education III: Secondary Methods (2 credits)
- MUS 4737 Instrumental Studies (3 credits)

REQUIRED MAJOR APPLIED AREA - MAJOR INSTRUMENT

SELECT 1 SEMESTER CREDIT AT THE 2000 LEVEL
(NUMBERED 2x48, 2x58, 2x68, 2x78) IN ONE OF
THE FOLLOWING, DEPENDING ON MAJOR INSTRUMENT: STRINGS
WOODWINDS, BRASS, OR PERCUSSION.

REQUIRED MAJOR APPLIED AREA - MAJOR INSTRUMENT

SELECT 1 SEMESTER CREDIT AT THE 3000 LEVEL
(NUMBERED 3x48, 3x58, 3x68, 3x78) IN ONE OF THE FOLLOWING, DEPENDING ON MAJOR INSTRUMENT: STRINGS, WOODWINDS, BRASS, OR PERCUSSION.

REQUIRED INSTRUMENTAL PERFORMING ORGANIZATIONS
SELECT 6 CREDITS FROM THE FOLLOWING COURSES:

Note: All music majors are required to participate in a major ensemble every semester they are enrolled.
MUS 4500 and MUS 4710 are by audition only.
Note: Students must be enrolled in MUS 4700, MUS 4703, MUS 4706, or MUS 4707 for at least one semester.

- MUS 4500 Bemidji Symphony Orchestra (1-2 credits)
- MUS 4610 Jazz Band (1-2 credits)
- MUS 4700 Instrumental Ensembles (1 credit)
- MUS 4710 Wind Ensemble (1-2 credits)

## Music, B.A. *major*

Required Credits: 47
Required GPA: 2.25

(Completion of the following courses with a grade of "C" or better is required for all music degrees.)

**I REQUIRED CORE COURSES**

COMPLETE THE FOLLOWING COURSE (REQUIRED 7 SEMESTERS):

- MUS 1800 Performance Laboratory (0 credit)

COMPLETE THE FOLLOWING COURSES:

- MUS 2201 Music Theory and Musicianship I (5 credits)
- MUS 2202 Music Theory and Musicianship II (5 credits)
- MUS 3201 Music Theory and Musicianship III (5 credits)
- MUS 3202 Music Theory and Musicianship IV (4 credits)
- MUS 3501 Music Technology I (2 credits)
- MUS 3618 Conducting Fundamentals (2 credits)
- MUS 3801 History and Literature of Music I (3 credits)
- MUS 3802 History and Literature of Music II (3 credits)

COMPLETE THE FOLLOWING COURSES:

- MUS 2310 Piano Proficiency (0 credit)
- MUS 3898 Degree Recital (0 credit)

**GENERAL PROGRAM**

REQUIRED APPLIED AREA
SELECT 4 SEMESTER CREDITS FROM MUS 2000 LEVEL OR HIGHER

SELECT 2 SEMESTER CREDITS FROM MUS 3000 LEVEL OR HIGHER

REQUIRED ELECTIVES IN MUSIC
Select 3 semester credits of MUS 3000 level or above, in consultation with advisor and included in a plan of study in the music office.

SELECT AN ADDITIONAL 9 SEMESTER CREDITS IN MUSIC IN CONSULTATION WITH ADVISOR.
Majors in this program are required to register for band, choir, orchestra, vocal or jazz ensemble every

term in residence.

**SUGGESTED SCHEDULE FOR MUSIC MAJOR, B.A., GENERAL PROGRAM**

The following is a list of courses arranged approximately by year. This schedule is only a suggestion; it is not recommended that students rely solely on this plan for advising purposes, as the frequency of course offerings cannot be guaranteed. See the Department Chair for specific guidelines. See course descriptions for prerequisites.

Freshman

- MUS 1100 Introduction to Music (3 credits)
- MUS 2110 World Music (2 credits)
- MUS 2310 Piano Proficiency (0 credit)
- MUS 1138 Introduction to Voice (1 credit)
- MUS 1800 Performance Laboratory (0 credit)
- Major Performing Ensemble (e.g., Bemidji Choir, Varsity Singers, Bemidji Symphony Orchestra, Wind Ensemble)
- Appropriate Music Theory and Related Classes (as determined by the Music Theory Placement Examination, administered during the first day of registration each semester):
- MUS 1010 Fundamentals of Music Theory (1 credit)
  *or* MUS 2201 Music Theory and Musicianship I (5 credits)
  *and* MUS 2101, 2102 Sight Singing and Ear Training I, II
- Applied Music Study (on major performing instrument, such as voice, piano, trumpet, violin, etc.)
- Liberal Education Courses

Sophomore

- MUS 1800 Performance Laboratory (0 credit)
- Major Performing Ensemble
- Applied Music Study
- Appropriate Music Theory and Related Classes: MUS 2202 and MUS 3201 Music Theory II and III
- Liberal Education Courses

Junior

- MUS 1800 Performance Laboratory (0 credit)
- MUS 3202 Music Theory and Musicianship IV (4 credits)
- MUS 3801 History and Literature of Music I (3 credits)
- MUS 3802 History and Literature of Music II (3 credits)
- MUS 3618 Conducting Fundamentals (2 credits)
- MUS 3628 Instrumental Conducting (2 credits)
  *or* MUS 3638 Choral Conducting (2 credits)
- Applied Music Study
- Major Performing Ensemble
- Liberal Education Courses

Senior

- MUS 1800 Performance Laboratory (0 credit)
- MUS 3898 Degree Recital (0 credit)
- Applied Music Study
- Major Performing Ensemble
- Liberal Education Courses

## Music, B.A. *major*
## Jazz Studies Emphasis

Required Credits: 64.0
Required GPA: 2.25

**I REQUIRED CORE COURSES**

COMPLETE THE FOLLOWING COURSE (REQUIRED 7 SEMESTERS):

- MUS 1800 Performance Laboratory (0 credit)

COMPLETE THE FOLLOWING COURSES:
(Completion of the following courses with a grade of "C" or better is required for all music degrees.)

- MUS 2201 Music Theory and Musicianship I (5 credits)
- MUS 2202 Music Theory and Musicianship II (5 credits)
- MUS 3201 Music Theory and Musicianship III (5 credits)
- MUS 3202 Music Theory and Musicianship IV (4 credits)
- MUS 3501 Music Technology I (2 credits)
- MUS 3618 Conducting Fundamentals (2 credits)
- MUS 3801 History and Literature of Music I (3 credits)
- MUS 3802 History and Literature of Music II (3 credits)

COMPLETE THE FOLLOWING COURSES:

- MUS 2310 Piano Proficiency (0 credit)
- MUS 3898 Degree Recital (0 credit)

**JAZZ STUDIES EMPHASIS**

REQUIRED COURSES

a. Required Applied Area (8 credits)
Students must pass barrier juries from the 2000 level to the 3000 level, and from the 3000 level to the 4000 level. Students must be at the 4000 level to present the Degree Recital.

b. Required Major Ensemble (8 credits)
Note: All music majors are required to participate in a major ensemble every semester they are enrolled. Jazz studies majors have the option of including Jazz Band as their major ensemble.

- MUS 4610 Jazz Band (1-2 credits)
- MUS 4710 Wind Ensemble (1-2 credits)

c. Required Courses (11 credits)
Complete the following courses:

- MUS 3100 Jazz Improvisation (1 credit)
- MUS 3120 The History of Jazz (2 credits)
- MUS 3502 Music Technology II (2 credits)
- MUS 4101 Advanced Jazz Improvisation (2 credits)
- MUS 4600 Jazz Ensemble (1-2 credits)

Complete 8 credits of a foreign language.

## Music, B.A. *major*
## Vocal Performance Emphasis

Required Credits: 66
Required GPA: 2.25

(Completion of the following courses with a grade of "C" or better is required for all music degrees.)

**I REQUIRED CORE COURSES**

COMPLETE THE FOLLOWING COURSE (REQUIRED 7 SEMESTERS):

- MUS 1800 Performance Laboratory (0 credit)

COMPLETE THE FOLLOWING COURSES:

- MUS 2201 Music Theory and Musicianship I (5 credits)
- MUS 2202 Music Theory and Musicianship II (5 credits)
- MUS 3201 Music Theory and Musicianship III (5 credits)
- MUS 3202 Music Theory and Musicianship IV (4 credits)
- MUS 3501 Music Technology I (2 credits)
- MUS 3618 Conducting Fundamentals (2 credits)
- MUS 3801 History and Literature of Music I (3 credits)
- MUS 3802 History and Literature of Music II (3 credits)

COMPLETE THE FOLLOWING COURSES:

- MUS 2310 Piano Proficiency (0 credit)
- MUS 3898 Degree Recital (0 credit)

**VOCAL PERFORMANCE EMPHASIS**

REQUIRED COURSES

a. Required Applied Area (8 credits)
Students must pass barrier juries from MUS 2138 to MUS 3138, and from MUS 3138 to MUS 4138. Students must be at the 4000 level to present the Degree Recital.

- MUS 2138 Voice, Level II (1 credit)
- MUS 3138 Voice, Level III (1 credit)
- MUS 4138 Voice, Level IV (1 credit)

b. Required Major Ensemble (8 credits)
Note: All music majors are required to participate in a major ensemble every semester they are enrolled.
Select 8 credits from the following courses:

- MUS 3800 Varsity Singers (1-2 credits)
- MUS 4800 Bemidji Choir (1-2 credits)
- MUS 4820 Vocal Ensemble (1-2 credits)

Required courses:

- MUS 2417 Diction For Singers I (2 credits)
- MUS 2418 Diction for Singers II (2 credits)
- MUS 3300 Piano Accompanying (2 credits)
- MUS 3400 Vocal Pedagogy (1 credit)

8 credits of a foreign language:

Select three of the following courses (6 credits total)

- MUS 3430 Topics in Solo Song Literature (2 credits)
- MUS 4708 Topics in Chamber Music (2 credits)
- MUS 4807 Topics in Symphonic Literature (2 credits)
- MUS 4808 Topics in Opera and Chamber Opera (2 credits)

## Music, B.A. *major*
## Instrumental Performance Emphasis

Required Credits: 63
Required GPA: 2.25

(Completion of the following courses with a grade of "C" or better is required for all music degrees.)

**I REQUIRED CORE COURSES**

COMPLETE THE FOLLOWING COURSE (REQUIRED 7 SEMESTERS):

- MUS 1800 Performance Laboratory (0 credit)

COMPLETE THE FOLLOWING COURSES:

- MUS 2201 Music Theory and Musicianship I (5 credits)
- MUS 2202 Music Theory and Musicianship II (5 credits)
- MUS 3201 Music Theory and Musicianship III (5 credits)
- MUS 3202 Music Theory and Musicianship IV (4 credits)
- MUS 3501 Music Technology I (2 credits)
- MUS 3618 Conducting Fundamentals (2 credits)
- MUS 3801 History and Literature of Music I (3 credits)
- MUS 3802 History and Literature of Music II (3 credits)

COMPLETE THE FOLLOWING COURSES:

- MUS 2310 Piano Proficiency (0 credit)
- MUS 3898 Degree Recital (0 credit)

**INSTRUMENTAL PERFORMANCE EMPHASIS**

REQUIRED COURSES

a. Required Applied Area (8 credits)
Students must pass barrier juries from the 2000 level to the 3000 level, and from the 3000 level to the 4000 level. Students must be at the 4000 level to present must be at the 4000 level to present degree recital.

b. Required Major Ensemble (8 credits)
Note: All music majors are required to participate in a major ensemble every semester they are enrolled.

- MUS 4500 Bemidji Symphony Orchestra (1-2 credits)
- MUS 4710 Wind Ensemble (1-2 credits)

c. Required Courses
Complete 4 credits from any of the following courses:

- MUS 4700 Instrumental Ensembles (1 credit)
- MUS 4703 Brass Ensemble (1 credit)
- MUS 4706 Brass Quintet (1 credit)

- MUS 4707 Percussion Ensemble (1 credit)

Select 3 of the following courses:

- MUS 3430 Topics in Solo Song Literature (2 credits)
- MUS 4708 Topics in Chamber Music (2 credits)
- MUS 4807 Topics in Symphonic Literature (2 credits)
- MUS 4808 Topics in Opera and Chamber Opera (2 credits)

Complete 8 semester credits of a foreign language:

**SUGGESTED SCHEDULE FOR MUSIC MAJOR, B.A., GENERAL PROGRAM**

The following is a list of courses arranged approximately by year. This schedule is only a suggestion; it is not recommended that students rely solely on this plan for advising purposes, as the frequency of course offerings cannot be guaranteed. See the Department Chair for specific guidelines. See course descriptions for prerequisites.

Freshman

- MUS 1100 Introduction to Music (3 credits)
- MUS 2110 World Music (2 credits)
- MUS 2310 Piano Proficiency (0 credit)
- MUS 1138 Introduction to Voice (1 credit)
- MUS 1800 Performance Laboratory (0 credit)
- Major Performing Ensemble (e.g., Bemidji Choir, Varsity Singers, Bemidji Symphony Orchestra, Wind Ensemble)
- Appropriate Music Theory and Related Classes (as determined by the Music Theory Placement Examination, administered during the first day of registration each semester):
- MUS 1010 Fundamentals of Music Theory (1 credit)
  *or* MUS 2201 Music Theory and Musicianship I (5 credits)
  *and* MUS 2101, 2102 Sight Singing and Ear Training I, II
- Applied Music Study (on major performing instrument, such as voice, piano, trumpet, violin, etc.)
- Liberal Education Courses

Sophomore

- MUS 1800 Performance Laboratory (0 credit)
- Major Performing Ensemble
- Applied Music Study
- Appropriate Music Theory and Related Classes: MUS 2202 and MUS 3201 Music Theory II and III
- Liberal Education Courses

Junior

- MUS 1800 Performance Laboratory (0 credit)
- MUS 3202 Music Theory and Musicianship IV (4 credits)
- MUS 3801 History and Literature of Music I (3 credits)
- MUS 3802 History and Literature of Music II (3 credits)
- MUS 3618 Conducting Fundamentals (2 credits)
- MUS 3628 Instrumental Conducting (2 credits)
  *or* MUS 3638 Choral Conducting (2 credits)
- Applied Music Study
- Major Performing Ensemble
- Liberal Education Courses

Senior

- MUS 1800 Performance Laboratory (0 credit)
- MUS 3898 Degree Recital (0 credit)
- Applied Music Study
- Major Performing Ensemble
- Liberal Education Courses

## Music, B.A. *major*
## Piano Performance and Pedagogy Emphasis

Required Credits: 63
Required GPA: 2.25

(Completion of the following courses with a grade of "C" or better is required for all music degrees.)

**I REQUIRED CORE COURSES**

COMPLETE THE FOLLOWING COURSE (REQUIRED 7 SEMESTERS):

- MUS 1800 Performance Laboratory (0 credit)

COMPLETE THE FOLLOWING COURSES:

- MUS 2201 Music Theory and Musicianship I (5 credits)
- MUS 2202 Music Theory and Musicianship II (5 credits)
- MUS 3201 Music Theory and Musicianship III (5 credits)
- MUS 3202 Music Theory and Musicianship IV (4 credits)
- MUS 3501 Music Technology I (2 credits)
- MUS 3618 Conducting Fundamentals (2 credits)
- MUS 3801 History and Literature of Music I (3 credits)
- MUS 3802 History and Literature of Music II (3 credits)

COMPLETE THE FOLLOWING COURSES:

- MUS 2310 Piano Proficiency (0 credit)
- MUS 3898 Degree Recital (0 credit)

**B. PIANO PERFORMANCE AND PEDAGOGY EMPHASIS**

REQUIRED COURSES

Required Applied Area (8 credits) - In order to present a senior recital, a student must pass barrier juries from the 2000 level to the 3000 level, and from the 3000 levl to the 4000 level. Students must be at the 4000 level to present the Degree Recital.

COMPLETE 4 SEMESTER CREDITS OF THE FOLLOWING COURSE:

- MUS 2118 Piano, Level II (1 credit)

COMPLETE 2 SEMESTER CREDITS OF THE FOLLOWING COURSE:

- MUS 3118 Piano, Level III (1 credit)

COMPLETE 2 SEMESTER CREDITS OF THE FOLLOWING COURSE:

- MUS 4118 Piano, Level IV (1 credit)

Other Required Piano Courses
COMPLETE THE FOLLOWING COURSES:

- MUS 3300 Piano Accompanying (2 credits)
- MUS 4104 Piano Literature I (2 credits)
- MUS 4105 Piano Literature II (2 credits)
- MUS 4106 Piano Pedagogy I (2 credits)
- MUS 4110 Piano Pedagogy II (2 credits)

COMPLETE 8 SEMESTER CREDITS OF FOREIGN LANGUAGE

REQUIRED ELECTIVES IN MUSIC

COMPLETE 4 SEMESTER CREDITS OF MAJOR PERFORMING ENSEMBLE

- MUS 3800 Varsity Singers (1-2 credits)
- MUS 4610 Jazz Band (1-2 credits)
- MUS 4710 Wind Ensemble (1-2 credits)
- MUS 4800 Bemidji Choir (1-2 credits)

COMPLETE 4 SEMESTER CREDITS OF INSTRUMENTAL ENSEMBLES

- MUS 4700 Instrumental Ensembles (1 credit)

**SUGGESTED SCHEDULE FOR MUSIC MAJOR, B.A., GENERAL PROGRAM**

The following is a list of courses arranged approximately by year. This schedule is only a suggestion; it is not recommended that students rely solely on this plan for advising purposes, as the frequency of course offerings cannot be guaranteed. See the Department Chair for specific guidelines. See course descriptions for prerequisites.

Freshman

- MUS 1100 Introduction to Music (3 credits)
- MUS 2110 World Music (2 credits)
- MUS 2310 Piano Proficiency (0 credit)
- MUS 1138 Introduction to Voice (1 credit)
- MUS 1800 Performance Laboratory (0 credit)
- Major Performing Ensemble (e.g., Bemidji Choir, Varsity Singers, Bemidji Symphony Orchestra, Wind Ensemble)
- Appropriate Music Theory and Related Classes (as determined by the Music Theory Placement Examination, administered during the first day of registration each semester):
- MUS 1010 Fundamentals of Music Theory (1 credit)
  *or* MUS 2201 Music Theory and Musicianship I (5 credits)
  *and* MUS 2101, MUS2102
- Applied Music Study (on major performing instrument, such as voice, piano, trumpet, violin, etc.)
- Liberal Education Courses

Sophomore

- MUS 1800 Performance Laboratory (0 credit)
- Major Performing Ensemble
- Applied Music Study
- Appropriate Music Theory and Related Classes: MUS 2202 Music Theory and Musicianship II (5 credits) and MUS 3201 Music Theory and Musicianship III (5 credits)
- Liberal Education Courses

Junior

- MUS 1800 Performance Laboratory (0 credit)
- MUS 3202 Music Theory and Musicianship IV (4 credits)
- MUS 3801 History and Literature of Music I (3 credits)
- MUS 3802 History and Literature of Music II (3 credits)
- MUS 3618 Conducting Fundamentals (2 credits)
- MUS 3628 Instrumental Conducting (2 credits)
  *or* MUS 3638 Choral Conducting (2 credits)
- Applied Music Study
- Major Performing Ensemble
- Liberal Education Courses

Senior

- MUS 1800 Performance Laboratory (0 credit)
- MUS 3898 Degree Recital (0 credit)
- Applied Music Study
- Major Performing Ensemble
- Liberal Education Courses

## Music *minor*

Required Credits: 21
Required GPA: 2.00

(Completion of the following courses with a grade of "C" or better is required for all music degrees.)

**I REQUIRED CORE COURSES**

COMPLETE THE FOLLOWING COURSES:

- MUS 2201 Music Theory and Musicianship I (5 credits)
- MUS 2202 Music Theory and Musicianship II (5 credits)

COMPLETE THE FOLLOWING COURSES:

- MUS 2300 Piano Fundamentals (1 credit)
- MUS 2310 Piano Proficiency (0 credit)

SELECT 1 OF THE FOLLOWING COURSES:
(Completion of the following courses with a grade of "C" or better is required for all music degrees.)

- MUS 3801 History and Literature of Music I (3 credits)
- MUS 3802 History and Literature of Music II (3 credits)

**II REQUIRED ELECTIVES**

MUSIC MINORS MUST COMPLETE A MINIMUM OF 4 SEMESTERS OF STUDY IN A MAJOR APPLIED AREA AND REACH LEVEL III. SEE DEPARTMENT CHAIR FOR FURTHER INFORMATION.

## Music Courses

**MUS 1010 Fundamentals of Music Theory (1 credit)**
An introductory course for students with limited background in music theory. Materials to be covered include rudimentary and fundamental theoretical concepts, with appropriate examples in both sight-singing and ear training.

**MUS 1100 Introduction to Music (3 credits)**
A course in music appreciation with an emphasis on the various styles of art music in western civilization. Presentations include: biographical information about composers, study and listening to representative compositions, and the relations of music to all art and history. Open to all students. Liberal Education Goal Area 6.

**MUS 1109 Private Instrument I (Fee Basis) (1 credit)**
One thirty minute lesson weekly per semester credit. Open to all students by consent of instructor and department chair. Level determined by instructor.

**MUS 1119 Private Piano I (Fee Basis) (1 credit)**
One thirty minute lesson weekly per semester credit. Open to all students by consent of instructor and department chair. Level determined by instructor.

**MUS 1120 Introduction to Folk, Jazz, and Rock Music (2 credits)**
A survey of American folk, jazz, and rock music and their place in American culture. Presentations include lectures, readings and listening to representative compositions. Open to all students. Liberal Education Goal Areas 6 & 7.

**MUS 1138 Introduction to Voice (1 credit)**
Group vocal instruction at the beginning level. Sections may be offered for students with no experience and students with some experience. Open to all students by consent of instructor or school of music chair.

**MUS 1139 Private Voice I (Fee Basis) (1 credit)**
One thirty minute lesson weekly per semester credit. Open to all students by consent of instructor and department chair. Level determined by instructor.

**MUS 1348 String Methods (1 credit)**
Group instruction to prepare students to demonstrate and describe proper hand, arm, and neck position; bow grip; shifting; intonation; and vibrato; as well as developmental techniques and pedagogical approaches for violin, viola, cello, and bass. (Might not be offered every year.)

**MUS 1368 High Brass Methods (1 credit)**
Group instruction to prepare students to demonstrate and describe proper embouchure, developmental techniques, and pedagogical approaches for trumpet and French horn.

**MUS 1369 Low Brass Methods (1 credit)**
Group instruction to prepare students to demonstrate and describe proper embouchure, developmental techniques, and pedagogical approaches for trombone, euphonium, and tuba. (Might not be offered every year.)

**MUS 1378 Percussion Methods (1 credit)**
Group instruction to prepare students to demonstrate and describe proper mallet and stick technique, care and maintenance of instruments, and percussion notation. Instruments covered include the snare drum, timpani, mallet instruments, and small percussion.

**MUS 1388 Single Reeds Methods (1 credit)**
Group instruction to prepare students to demonstrate and describe proper embouchure, developmental techniques, and pedagogical approaches for saxophone and clarinet.

**MUS 1389 Double Reeds/Flute Methods (1 credit)**
Group instruction to prepare students to demonstrate and describe proper embouchure, developmental techniques, and pedagogical approaches for flute, oboe, and bassoon. (Might not be offered every year.)

**MUS 1800 Performance Laboratory (0 credit)**
Individual and small group performances and lectures. Students must be enrolled in and successfully complete every semester of applied study (seven satisfactory semesters, except for transfer students).

**MUS 2109 Private Instrument II (Fee Basis) (1 credit)**
See description under MUS 1109.

**MUS 2110 World Music (2 credits)**
Explore the musical cultures of a relatively small number of representative hum groups through case studies. Students will indirectly experience what it is like to be an ethnomusicologist puzzling out his or her way toward understanding an unfamiliar music and its context in an unfamiliar culture. Completion of this course with a grade of "C" or better is required for all music degrees. Liberal Education Goal Areas 6 & 8

**MUS 2118 Piano, Level II (1 credit)**
Private or group lessons in piano using a variety of technical exercises, improvisation, and repertoire. Level of study determined by audition or discretion of the instructor. Corequisite: MUS 1800. NOTE: Course requirements include solo performances in Master Classes, Performance Laboratory and semester Juries (performance finals) at the discretion of the instructor. Prerequisites: Music major or minor and complete an audition. These classes must be taken in sequence.

**MUS 2119 Private Piano II (Fee Basis) (1 credit)**
See description under MUS 1119.

**MUS 2138 Voice, Level II (1 credit)**
Private or group lessons using a variety of technical exercises, improvisation and repertoire appropriate to the students' chosen performance medium. Level of study determined by audition or discretion of the instructor. Corequisite: concurrent registration in MUS 1800 every semester. Note: Course requirements include solo performances in Master classes, Performance Laboratory, and semester Juries (performance finals) at the discretion of the instructor. Prerequisite: Student must be a music major or minor and complete an audition before enrolling in MUS 2138. These classes must be taken in sequence.

**MUS 2139 Private Voice II (Fee Basis) (1 credit)**
See description under MUS 1139.

**MUS 2148 Strings: Violin, Level II (1 credit)**
Private or group lessons in violin using a variety of technical exercises, improvisation and repertoire. Level of study determined by auditing or discretion of the instructor. Corequisite: MUS 1800. NOTE: Course requirements include solo performances in Master Classes, Performance Laboratory and semester Juries (performance finals) at the discretion of the instructor.

**MUS 2158 Woodwinds: Clarinet, Level II (1 credit)**
Private or group lessons in clarinet using a variety of technical exercises, improvisation and repertoire. Level of study determined by audition or discretion of the instructor. Corequisite: MUS 1800. NOTE: Course requirements include solo performances in Master Classes, Performance Laboratory and semester Juries (performance finals) at the discretion of the instructor.

**MUS 2168 Brass: Trumpet, Level II (1 credit)**
Private or group lessons in trumpet using a variety of technical exercises, improvisation, and repertoire. Level of study determined by audition or discretion of the instructor. Corequisite: MUS 1800. NOTE: Course requirements include solo performances in Master Classes, Performance Laboratory and semester Juries (performance finals) at the discretion of the instructor.

**MUS 2178 Percussion, Level II (1 credit)**
Private or group lessons in snare drum, timpani, mallets, and traps. Percussion students are required to perform on all percussion instruments using a variety of technical exercises, improvisation and repertoire. Level of study determined by audition or discretion of the instructor. Corequisite: MUS 1800. NOTE: Course requirements include solo performances in Master Classes, Performance Laboratory and semester Juries (performance finals) at the discretion of the instructor.

**MUS 2201 Music Theory and Musicianship I (5 credits)**
The study of the basic elements of music and how they work together. Includes analysis, composition, sight singing, ear training, and improvisation of Western and Non-Western musical styles. Emphasis is on beginning harmony and part-writing. Visual and aural recognition of the elements of music through music performance, dictation, and improvisation using a variety of musical styles from Western and non-Western traditions. Completion of this course with a grade of "C" or better is required for all music degrees.

**MUS 2202 Music Theory and Musicianship II (5 credits)**
The study of the basic elements of music and how they work together. Continuation of study on harmony and part-writing. Emphasis on phrase structures, extended chords, and small musical forms. Continuation of visual and aural recognition of the elements of music through music performance, dictation, and improvisation using a variety of musical styles from Western and non-Western traditions. Completion of this course with a grade of "C" or better is required for all music degrees. Prerequisite: MUS 2201.

**MUS 2238 Guitar, Level II (1 credit)**
Private or group lessons in guitar using a variety of technical exercises, improvisation, and repertoire. Level of study is determined by audition or discretion of the instructor. NOTE: Course requirements include solo performances in Master Classes, Performance Laboratory, and semester Juries (performance finals) at the discretion of the instructor. This course is repeatable for credit. Corequisite: MUS 1800.

**MUS 2248 Strings: Viola, Level II (1 credit)**
Private or group lessons in viola using a variety of technical exercises, improvisation and repertoire. Level of study determined by audition or discretion of the instructor. Corequisite: MUS 1800. NOTE: Course requirements include solo performances in Master Classes, Performance Laboratory and semester Juries (performance finals) at the discretion of the instructor.

**MUS 2258 Woodwinds: Saxophone, Level II (1 credit)**
Private or group lessons in saxophone using a variety of technical exercises, improvisation and repertoire. Level of study determined by audition or discretion of the instructor. Corequisite: MUS 1800. NOTE: Course requirements include solo performances in Master Classes, Performance Laboratory and semester Juries (performance finals) at the discretion of the instructor.

**MUS 2268 Brass: Horn, Level II (1 credit)**
Private or group lessons in horn using a variety of technical exercies, improvisation, and repertoire. Level of study determined by audition or discretion of the instructor. Corequisite: MUS 1800. NOTE: Course requirements include solo performances in Master Classes, Performance Laboratory and semester Juries (performance finals) at the discretion of the instructor.

**MUS 2300 Piano Fundamentals (1 credit)**
Basic techniques of playing scales, intervals, and chord progressions. Required of all students in major, minor, and field of emphasis; others by consent of instructor. May be repeated for credit. Corequisite: Music Theory until requirements for MUS 2310 are completed.

**MUS 2310 Piano Proficiency (0 credit)**
Students register for this Exam when they are prepared to complete all material outlined in the Piano Proficiency Syllabus. Required of all majors, minors and music emphasis students. It is usually completed by the end of the sophomore year.

**MUS 2348 Strings: Cello, Level II (1 credit)**
Private or group lessons in cello using a variety of technical exercises, improvisation and repertoire. Level of study determined by audition or discretion of the instructor. Corequisite: MUS 1800. NOTE: Course requirements include solo performances in Master Classes, Performance Laboratory and semester Juries (performance finals) at the discretion of the instructor.

**MUS 2358 Woodwinds: Oboe, Level II (1 credit)**
Private or group lessons in oboe using a variety of technical exercises, improvisation and repertoire. Level of study determined by audition or discretion of the instructor. Corequisite: MUS 1800. NOTE: Course requirements include solo performances in Master classes, Performance Laboratory and semester Juries (performance finals) at the discretion of the instructor.

**MUS 2368 Brass: Trombone, Level II (1 credit)**
Private or group lessons in trombone using a variety of technical exercises, improvisation, and repertoire. Level of study determined by audition or discretion of the instructor. Corequisite: MUS 1800. NOTE: Course requirements include solo performances in Master Classes, Performance Laboratory and semester Juries (performance finals) at the discretion of the instructor.

**MUS 2417 Diction For Singers I (2 credits)**
Pronunciation and enunciation of English, Latin, and Italian text, using the International Phonetic Alphabet. Emphasis on language skill needed for vocal and choral singing and teaching. (Might not be offered every year.)

**MUS 2418 Diction for Singers II (2 credits)**
Pronunciation and enunciation of French and German text, using the International Phonetic Alphabet. Emphasis on language skill needed for vocal and choral singing and teaching. Prerequisite: MUS 2417. (Might not be offered every year.)

**MUS 2448 Strings: Bass, Level II (1 credit)**
Private or group lessons in double bass using a variety of technical exercises, improvisation and repertoire. Level of study determined by audition or discretion of the instructor. Corequisite: MUS 1800. NOTE: Course requirements include solo performaces in Master classes, Performance Laboratory and semester Juries (performance finals) at the discretion of the instructor.

**MUS 2458 Woodwinds: Bassoon, Level II (1 credit)**
Private or group lessons in bassoon using a variety of technical exercises, improvisation and repertoire. Level of study determined by audition or discretion of the instructor. Corequisite: MUS 1800. NOTE: Course requirements include solo performances in Master classes. Performance Laboratory and semester Juries (performance finals) at the discretion of the instructor.

**MUS 2468 Brass: Euphonium, Level II (1 credit)**
Private or group lessons in euphonium using a variety of technical exercises, improvisation, and repertoire. Level of study determined by audition or discretion of the instructor. Corequisite: MUS 1800. NOTE: Course requirements include solo performances in Master Classes, Performance Laboratory and semester Juries (performance finals) at the discretion of the instructor.

**MUS 2558 Woodwinds: Flute, Level II (1 credit)**
Private or group lessons in flute using a variety of technical exercises, improvisation and repertoire. Level of study determined by audition or discretion of the instructor. Corequisite: MUS 1800. NOTE: Course requirements include solo performances in Master classes, Performance Laboratory and semester Juries (performance finals) at the discretion of the instructor.

**MUS 2568 Brass: Tuba, Level II (1 credit)**
Private or group lessons in tuba using a variety of technical exercises, improvisation, and repertoire. Level of study determined by audition or discretion of the instructor. Corequisite: MUS 1800. NOTE: Course requirements include solo performances in Master Classes. Performance Laboratory and semester Juries (performance finals) at the discretion of the instructor.

**MUS 2607 Music Education I: Introduction (2 credits)**
Introduction to general, vocal, and instrumental education for music students preparing to teach. Includes observations in the public schools, introduction to teacher education, and a broad overview of instructional and learning theory, philosophy, developmental and motivational psychology, characteristics of the successful teacher, and commitment to the teaching profession. Completion of this course with a grade of "C" or better is required for all music degrees.

**MUS 2710 Symphonic Band (1-2 credits)**
This ensemble will play the best music of the standard concert band repertoire, including a wide variety of classic 20th century band music, as well as contemporary concert band music. This music will not be at the level of difficulty of the wind ensemble repertoire, thus making it accessible for the musical level of the members of this ensemble. Repeatable for credit. Liberal Education Goal Areas 6 & 11.

**MUS 2954 Study-Travel, Humaniiteis and the Arts (1-6 credits)**
Study Travel course in Music for Lib Ed Goal Area 6.

**MUS 3100 Jazz Improvisation (1 credit)**
The means of improvisation including jazz theory and style are studied. Students will also perform in class. Prerequisites: MUS 2201 and MUS 2202 or consent of instructor.

**MUS 3107 Counterpoint (2 credits)**
Analysis and composition of 18th century contrapuntal works including species counterpoint, canon, invention and fugue. Prerequisites: MUS 3201 and MUS 3202.

**MUS 3109 Private Instrument III (Fee Basis) (1 credit)**
See description under MUS 1109.

**MUS 3118 Piano, Level III (1 credit)**
See description under MUS 2118.

**MUS 3120 The History of Jazz (2 credits)**
This course will consist of class lectures, demonstrations, and listening examples of jazz artists that will provide the backround information needed to understand and appreciate the music that has shaped our culture. In tests, papers, and class presentations, students will demonstrate the ability to identify and describe musical examples. Each student will demonstrate knowledge of the cultural backround of the musical examples. Open to all students. Liberal Education Goal Areas 6 & 7.

**MUS 3129 Private Organ III (Fee Basis) (1 credit)**
See description under MUS 1129.

**MUS 3130 The History of Rock and Roll (3 credits)**
From its beginnings in the blues, to modern rock and popular music, this course will study characteristics of the music and the artists who create it. From class lectures, demonstrations and listening examples, students will demonstrate the ability to identify and describe music examples. Each student will demonstrate knowledge of the cultural background of the musical examples. Open to all students. Liberal Education Goal Areas 6 & 7.

**MUS 3138 Voice, Level III (1 credit)**
See description under MUS 2138.

**MUS 3148 Strings: Violin, Level III (1 credit)**
See description under MUS 2148.

**MUS 3158 Woodwinds: Clarinet, Level III (1 credit)**
See description under MUS 2158.

**MUS 3168 Brass: Trumpet, Level III (1 credit)**
See description under MUS 2168.

**MUS 3178 Percussion, Level III (1 credit)**
See description under MUS 2178.

**MUS 3201 Music Theory and Musicianship III (5 credits)**
Study of the basic elements of music and how they work together. Continuation of study on harmony and part-writing. Emphasis on counterpoint and large musical forms. Continuation of visual and aural recognition of the elements of music through music performance, diction, and improvisation using a variety of musical styles from Western and non-Western traditions. Third semester of the two-year music theory sequence. Completion of this course with a grade of "C" or better is required for all music degrees. Prerequisites: MUS 2201 and MUS 2202.

**MUS 3202 Music Theory and Musicianship IV (4 credits)**
Study of the basic elements of music and how they work together. Continuation of study on harmony and part-writing. Emphasis on composition and twentieth-century forms and harmonies. Continuation of visual and aural recognition of the elements of music through music performance, diction, and improvisation using a variety of musical styles from Western and non-Western traditions. Fourth semester of the two-year music theory sequence. Completion of this course with a grade of "C" or better is required for all music degrees. Prerequisite: MUS 3201.

**MUS 3238 Guitar, Level III (1 credit)**
Private or group lessons in guitar using a variety of technical exercises, improvisation, and repertoire. Level of study is determined by audition or discretion of the instructor. NOTE: Course requirements include solo performances in Master Classes, Performance Laboratory, and semester Juries (performance finals) at the discretion of the instructor. This course is repeatable for credit. Corequisite: MUS 1800.

**MUS 3248 Strings: Viola, Level III (1 credit)**
See description under MUS 2248.

**MUS 3258 Woodwinds: Saxophone, Level III (1 credit)**
See description under MUS 2258.

**MUS 3268 Brass: Horn, Level III (1 credit)**
See description under MUS 2268.

**MUS 3300 Piano Accompanying (2 credits)**
Guided study in the practices and procedures of accompanying. Regular performing is required. Prerequisites: MUS 2310 or MUS 2118 or consent of instructor.

**MUS 3348 Strings: Cello, Level III (1 credit)**
See description under MUS 2348.

**MUS 3358 Woodwinds: Oboe, Level III (1 credit)**
See description under MUS 2358.

**MUS 3368 Brass: Trombone, Level III (1 credit)**
See description under MUS 2368.

**MUS 3400 Vocal Pedagogy (1 credit)**
Function, anatomy and physiology, and problems connected with the development of the singing voice and teaching techniques. Open to majors and minors only. Prerequisite: Concurrent enrollment in MUS 2138 or MUS 3138 or MUS 4138. May not be offered every year.

**MUS 3405 Music in the Elementary Classroom (2 credits)**
In order to meet the teacher licensure rule most effectively, this course provides a hands-on experience with the discipline of music. As the Creative Expressions course (ED 3301) offers philosophical and practical bases for including arts in the elementary classroom, this course gives students the opportunity to learn specific vocal and instrumental techniques that can enhance aesthetically both the academic experiences and the learning environment in the classroom. Nonperformance-based musical activities are also introduced to display the interconnectedness of music to other subject areas. Prerequisite: Music reading experience or MUS 1130.

**MUS 3430 Topics in Solo Song Literature (2 credits)**
Topics in Solo Song Literature from the Baroque to the present including historical style, performance practices and individual composer style characteristics. Open to majors and minors only.

**MUS 3448 Strings: Bass, Level III (1 credit)**
See description under MUS 2448

**MUS 3458 Woodwinds: Bassoon, Level III (1 credit)**
See description under MUS 2458

**MUS 3468 Brass: Euphonium, Level III (1 credit)**
See description under MUS 2468.

**MUS 3501 Music Technology I (2 credits)**
Learning and demonstration of the multiple uses of music technology through Musical Instrument Digital Interface (MIDI) basics, including MIDI theory, synthesizer exploration and ensemble, sequencing and notation and their relationships to music education, performance, and composition. Technical concepts include synthesis manipulation, real and step time sequencing, auto-sequencing programs, and desktop music notation publishing programs. Musical concepts include compositional and orchestration techniques, improvisation, and basic keyboard ensemble performance. Completion of this course with a grade of "C" or better is required for all music degrees. Prerequisites: Basic computer skills, music reading in treble and bass clefs, and playing melodies on a piano keyboard.

**MUS 3502 Music Technology II (2 credits)**
Advanced learning and demonstration of the multiple uses of music technology through Musical Instrument Digital Interface (MIDI), including MIDI internet resources, Computer Assisted Instruction (CAI) exploration and evaluation, media manipulation in the digital domain, and multimedia authoring and their relationships to music education, performance, and composition. Prerequisite: MUS 3501.

**MUS 3558 Woodwinds: Flute, Level III (1 credit)**
See description under MUS 2558.

**MUS 3568 Brass: Tuba, Level III (1 credit)**
See description under MUS 2568

**MUS 3607 Music Education II: Elementary Methods (3 credits)**
Philosophy, materials, techniques, and methods of instruction for a general music program in the elementary school. Topics include child development, classroom instruments, lesson planning, classroom management, program administration, and advocacy. Includes an individually scheduled, 25-hour practicum in the public schools. Prerequisites: MUS 2310, MUS 2607, MUS 3202, and MUS 3618.

**MUS 3618 Conducting Fundamentals (2 credits)**
Basics of choral and instrumental conducting. Emphasis on beat patterns and cues. Completion of this course with a grade of "C" or better is required for all music degrees. Prerequisites: MUS 2202 and MUS 2310.

**MUS 3628 Instrumental Conducting (2 credits)**
Refinement of conducting skills, score reading, and rehearsal procedures. Open to music majors only. Prerequisite: MUS 3618.

**MUS 3638 Choral Conducting (2 credits)**
Selecting, interpreting, and conducting choral music. Open to majors and minors only. Prerequisite: MUS 3618.

**MUS 3800 Varsity Singers (1-2 credits)**
A choral ensemble open to all students with no preliminary audition. Diverse choral literature performed. Basic vocal and choral training. Liberal Education Goal Area 11.

**MUS 3801 History and Literature of Music I (3 credits)**
Survey of the history of music from antiquity into the eighteenth century; emphasis on the music of Western civilization. Completion of this course with a grade of "C" or better is required for all music degrees. Liberal Education Goal Areas 6.

**MUS 3802 History and Literature of Music II (3 credits)**
Survey of the history of music from the eighteenth century to the present; emphasis on the music of Western civilization. Completion of this course with a grade of "C" or better is required for all music degrees. Liberal Education Goal Areas 6.

**MUS 3898 Degree Recital (0 credit)**
Performance of musical literature in the applied area of study at the 3000 level. Concurrent registration at the 3000 level in the applied area. Departmental approval required to allow substitution of an alternate project. Consult department chair or advisor for specific guidelines.

**MUS 4100 Instrumental Arranging (1 credit)**
Advanced study in techniques of orchestration and arranging. Open to music majors only. Prerequisite: MUS 3202.

**MUS 4101 Advanced Jazz Improvisation (2 credits)**
During class the student will study, learn, and develop skills necessary to the performance of advanced levels of jazz improvisation. The students in Advanced Jazz Improvisation will experience an intense study of jazz styles and incorporate the study of those styles into the creation of their own solos. The course will include use of a combination of technical exercises, scales, critical listening, solo transcription, methods, and solo repertoire to improve performance skills and knowledge of jazz improvisation. Additional assignments may include readings and study sheets covering particular techniques, terms, and styles of jazz's historical periods. Preparation for each class includes familiarity with all musical terms and concepts related to the current topic, and evidence of practice and study of the musical material for that lesson. Prerequisite: MUS 3100.

**MUS 4104 Piano Literature I (2 credits)**
Students gain an understanding of the following: musical forms, styles, and vocabulary related to music for keyboard instruments; keyboard literature from 1600 through the early 19th century within the larger context of Western Art Music of the Baroque and Classical eras. Students engage in active aural and written analysis of keyboard literature. Prerequisite: MUS 2118; Corequisite: MUS 3801 or consent of instructor. (Might not be offered every year.)

**MUS 4105 Piano Literature II (2 credits)**
Students gain an understanding of the following: musical forms, styles, and vocabulary related to music for keyboard instruments; keyboard literature from the early 19th century through the present within the larger context of Western Art Music of the Romantic and Contemporary eras. Students engage in active aural and written analysis of keyboard literature. Prerequisite: MUS 4104; Corequisite: MUS 3802 or consent of instructor. (Might not be offered every year.)

**MUS 4106 Piano Pedagogy I (2 credits)**
Students gain an understanding of the following: teaching skills appropriate for instruction of the young beginner through intermediate-level student; musical and pianistic skills and the means of acquiring and developing those skills. Students compile a collection of materials and resources related to the instruction of young beginner through intermediate students, which will later aid in the establishment of their own teaching studios. Prerequisite: Consent of instructor. (Might not be offered every year.)

**MUS 4109 Private Instrument IV (Fee Basis) (1 credit)**
See description under MUS 1109.

**MUS 4110 Piano Pedagogy II (2 credits)**
Students gain an understanding of the following: teaching skills appropriate for instruction of the adult beginner in both private and small class settings, in which students observe and teach; studio procedures related to the career needs of a piano pedagogue (i.e., professional affiliations, business skills, studio policies, etc.); pedagogical skills necessary for the training of the advanced pianist. Students expand their collection of materials and resources related to all areas of piano pedagogy, which will later aid in the establishment of their own teaching studios. Prerequisite: MUS 4106 or consent of instructor. (Might not be offered every year.)

**MUS 4118 Piano, Level IV (1 credit)**
See description under MUS 2118.

**MUS 4138 Voice, Level IV (1 credit)**
See description under MUS 2138.

**MUS 4148 Strings: Violin, Level IV (1 credit)**
See description under MUS 2148.

**MUS 4158 Woodwinds: Clarinet, Level IV (1 credit)**
See description under MUS 2158.

**MUS 4168 Brass: Trumpet, Level IV (1 credit)**
See description under MUS 2168.

**MUS 4178 Percussion, Level IV (1 credit)**
See description under MUS 2178.

**MUS 4200 Composition (1 credit)**
Creation of original works in variety forms, styles and genres. Prerequisite: MUS 2202.

**MUS 4238 Guitar, Level IV (1 credit)**
Private or group lessons in guitar using a variety of technical exercises, improvisation, and repertoire. Level of study is determined by audition or discretion of the instructor. NOTE: Course requirements include solo performances in Master Classes, Performance Laboratory, and semester Juries (performance finals) at the discretion of the instructor. This course is repeatable for credit. Corequisite: MUS 1800.

**MUS 4248 Strings: Viola, Level IV (1 credit)**
See description under Mus 2248

**MUS 4258 Woodwinds: Saxophone, Level IV (1 credit)**
See description under MUS 2258.

**MUS 4268 Brass: Horn, Level IV (1 credit)**
See description under MUS 2268.

**MUS 4348 Strings: Cello, Level IV (1 credit)**
See description under MUS 2348

**MUS 4358 Woodwinds: Oboe, Level IV (1 credit)**
See description under MUS 2358.

**MUS 4368 Brass: Trombone, Level IV (1 credit)**
See description under MUS 2368

**MUS 4448 Strings: Bass, Level IV (1 credit)**
See description under MUS 2448

**MUS 4458 Woodwinds: Bassoon, Level IV (1 credit)**
See description under MUS 2458.

**MUS 4468 Brass: Euphonium, Level IV (1 credit)**
See description under MUS 2468

**MUS 4500 Bemidji Symphony Orchestra (1-2 credits)**
A symphony orchestra open to university students and members of the local community and commuting area. The orchestra performs public concerts several times each year, and it assists in the production of selected choral and operatic works. The orchestra is a cooperative effort between the University and the Bemidji Orchestral Society. String membership open by permission of the conductor; woodwinds, brass and percussion by audition.

**MUS 4558 Woodwinds: Flute, Level IV (1 credit)**
See description under MUS 2558.

**MUS 4568 Brass: Tuba, Level IV (1 credit)**
See description under MUS 2568

**MUS 4600 Jazz Ensemble (1-2 credits)**
Open to all students by audition. Small jazz group(s) for students interested in improvisation.

**MUS 4607 Music Education III: Secondary Methods (2 credits)**
Philosophy, materials, techniques, and methods of instruction for a general music program in the secondary school. Topics include child development for middle and high school students, guitar, soprano and alto recorders, lesson planning, technology, program administration, and advocacy. Prerequisites: MUS 2310, MUS 2607, MUS 3202, MUS 3607, and MUS 3618.

**MUS 4610 Jazz Band (1-2 credits)**
Open to all students by audition. Enrollment demand usually permits the formation of two groups.

**MUS 4648 Advanced Conducting (2 credits)**
Further development of choral or instrumental conducting skills. Open to music majors only. Consent of instructor. Prerequisites: MUS 3628 and MUS 3638.

**MUS 4700 Instrumental Ensembles (1 credit)**
Chamber music experience in strings, woodwinds, brass, percussion, piano and miscellaneous chamber groups.

**MUS 4703 Brass Ensemble (1 credit)**
A brass ensemble (trumpets, horns, trombones, euphoniums, tubas, and percussion) open to all university students who play or have an active interest in the brass family of instruments.

**MUS 4706 Brass Quintet (1 credit)**
A brass quintet (two trumpets, horn, trombone, tuba) open to university students by audition only. Prerequisite: Performance audition or consent of instructor.

**MUS 4707 Percussion Ensemble (1 credit)**
A percussion ensemble of six or more open to all university students who play or have an active interest in the percussion family of instruments. Prerequisite: Performance audition and/or consent of instructor.

**MUS 4708 Topics in Chamber Music (2 credits)**
Study, through listening, analysis and performance of chamber music from the sonata to modern chamber music. (Might not be offered every year.)

**MUS 4710 Wind Ensemble (1-2 credits)**
A select smaller concert band, formed for the purpose of playing the wind ensemble repertoire. Open to all woodwind, brass, and percussion players by audition. Prerequisite: Successful audition. Liberal Education Goal Areas 6 and 11.

**MUS 4737 Instrumental Studies (3 credits)**
Survey of methods, materials, and strategies for effective instruction in secondary instrumental music programs. Topics include standard ensemble repertoire and strategies for developing ensemble musicianship. Prerequisites: MUS 1348, MUS 1368, MUS 1378, MUS 1388, MUS 2310, and MUS 3618.

**MUS 4800 Bemidji Choir (1-2 credits)**
A mixed choir of 45-60 voices. Rehearse daily. In addition to concerts on campus, make annual domestic tours and triennial foreign tours. Open to all students by audition or consent of instructor. Liberal Education Goal Area 11.

**MUS 4807 Topics in Symphonic Literature (2 credits)**
Study of symphonic literature, through listening and analysis, from 1600 through modern symphonic music. (Might not be offered every year.)

**MUS 4808 Topics in Opera and Chamber Opera (2 credits)**
Study of selected examples of operatic literature, through listening, analysis and preparation, from 1600 to the present. (Might not be offered every year.)

**MUS 4810 Chamber Singers (1-2 credits)**
A mixed vocal ensemble of 14 voices. Perform at various functions on and off-campus including Madrigal Dinner and concerts. Open to all students by audition or consent of instructor.

**MUS 4811 Choral Notation and Arranging (1 credit)**
Beginning choral arranging including a practical survey of choral literature of all periods. Emphasis on the needs of secondary school choral directors. Prerequisite: MUS 3202.

**MUS 4812 Choral Studies (2 credits)**
Survey of choral literature to include an in-depth study of various aspects of the choral art such as tone production, vocal timbre, phrasing, Western and non-Western styles, balance, ornamentation, and improvisation. Emphasis on the needs of secondary school music directors. Prerequisite: MUS 4811.

**MUS 4820 Vocal Ensemble (1-2 credits)**
Small vocal ensembles specializing in music for events such as Madrigal Dinner, Opera Night, or Musical Theater. Open to all students by audition or consent of instructor.

## All-University Courses

The course numbers listed below, not always included in the semester class schedule, may be registered for by consent of the advisor, instructor, or

department chair, or may be assigned by the department when warranted. Individual registration requires previous arrangement by the student and the completion of any required form or planning outline as well as any prerequisites.

1910, 2910, 3910, 4910 DIRECTED INDEPENDENT STUDY
1920, 2920, 3920, 4920 DIRECTED GROUP STUDY
1930, 2930, 3930, 4930 EXPERIMENTAL COURSE
1940, 2940, 3940, 4940 IN-SERVICE COURSE
1950, 2950, 3950, 4950 WORKSHOP, INSTITUTE, TOUR
1960, 2960, 3960, 4960 SPECIAL PURPOSE INSTRUCTION
1970, 2970, 3970, 4970 INTERNSHIP
1980, 2980, 3980, 4980 RESEARCH
1990, 2990, 3990, 4990 THESIS

# Nursing

Professional nurses provide direct care to individuals and work with others in a variety of settings to address the health needs of individuals, families, and communities. The practice of nursing aims to help people of all ages experience optimal health. Respect for human dignity and a commitment to caring are essential to nursing practice. Expectations of the baccalaureate Nursing graduate include professional growth and scholarly approaches to practice. The profession of nursing provides opportunities for graduates to assume many roles in a variety of clinical areas. A baccalaureate degree in Nursing also provides a foundation for graduate study and further specialization.

The program is accredited by the Commission on Collegiate Nursing Education. The program has two tracks, the RN to Baccalaureate Track and the 4-Year Track.

**The RN to Baccalaureate Track** serves registered nurses who live and work in various geographical areas. Courses are offered in block schedules, and some components are offered on the Internet and some on-campus. Students may enroll in liberal education courses and selected Nursing courses prior to being admitted to the Nursing major.

**The 4-Year Track** serves students who are entering Bemidji State University as freshmen and are seeking a baccalaureate nursing education that will prepare them to take the NCLEX RN exam after graduation.

**Programs**

- Nursing, B.S. (RN To Baccalaureate Track)*major*
- Nursing, B.S. (4 - Year Track)*major*

**Career Directions**

Community Health
Home-care/Hospice
Hospitals
Long-term Care
Schools
Also: Graduate Study

**Preparation**

*RN to Baccalaureate Track*

Registered Nurse Licensure in Minnesota, North Dakota, or Wisconsin

*4-Year Track*

See Section II, Enrollment for required high school preparation

*Recommended High School Courses*

Algebra
Biology
Chemistry
Health
Life Sciences

## Nursing, B.S. *major*
## RN To Baccalaureate Track

Required Credits: 36
Required GPA: 2.25

I ADMISSION TO THE MAJOR

Lower division preparation in nursing is required prior to submitting an application for the major. Applicants must:

*Be a graduate of a state approved associate degree or diploma nursing program.

*Be licensed to practice as a registered nurse in Minnesota or be a graduate with license pending.

*Be formally admitted to Bemidji State University via the Admissions Office.

II PROGRESSION All individual nursing courses applied to the upper division major requirements must reflect a letter grade of C or better.

**III REQUIRED NURSING COURSES**

COMPLETE THE FOLLOWING COURSES:

- NRSG 3100 Concepts of Nursing and Health Care (3 credits)
- NRSG 3140 Advanced Health Assessment (3 credits)
- NRSG 3150 Integrative and Cultural Nursing (3 credits)
- NRSG 3200 Health Education in Nursing Practice (3 credits)
- NRSG 3240 Information Management and Collaborative Communication (3 credits)
- NRSG 3300 Health Care Policy, Finance, and Regulatory Environments (3 credits)
- NRSG 4101 Nursing Research RN-BS (3 credits)
- NRSG 4116 Community and Family Health Nursing (4 credits)
- NRSG 4120 Nursing Practicum: Community (3 credits)
- NRSG 4210 Nursing Leadership and Management RN-BS (3 credits)
- NRSG 4240 Evidence, Practice, and Profession (3 credits)

COMPLETE ONE OF THE FOLLOWING COURSES:

- NRSG 3920 Directed Group Study (1-4 credits) (Complete for 2 credits)
- NRSG 4400 Introduction to Camp Nursing (3 credits)
- NRSG 4407 Roles and Responsibilities of the Camp Nurse (3 credits)

**SUGGESTED SEMESTER SCHEDULE FOR NURSING MAJOR, B.S.**

RN to Baccalaureate Track

Junior

- NRSG 3100 Concepts of Nursing and Health Care (3 credits)
- NRSG 3140 Advanced Health Assessment (3 credits)
- NRSG 3150 Integrative and Cultural Nursing (3 credits)
- NRSG 3240 Information Management and Collaborative

Communication (3 credits)

Junior or Senior

- NRSG 3200 Health Education in Nursing Practice (3 credits)
- NRSG 3300 Health Care Policy, Finance, and Regulatory Environments (3 credits)
- NRSG 3920 Directed Group Study (1-4 credits)
  or NRSG 4400 Introduction to Camp Nursing (3 credits)
  or NRSG 4407 Roles and Responsibilities of the Camp Nurse (3 credits)

Senior

- NRSG 4101 Nursing Research RN-BS (3 credits)
- NRSG 4116 Community and Family Health Nursing (4 credits)
- NRSG 4120 Nursing Practicum: Community (3 credits)
- NRSG 4210 Nursing Leadership and Management RN-BS (3 credits)
- NRSG 4240 Evidence, Practice, and Profession (3 credits)

## Nursing, B.S. *major*
## 4 - Year Track

Required Credits: 88
Required GPA: 2.25

**The 4-year track is designed for students who are beginning their studies for the nursing major.**

**I. ADMISSION TO MAJOR**

Application for admission to the nursing major is a separate process from admission to the university. Admission to the nursing major is required for enrollment in selected spring semester sophomore and all upper division nursing courses. Application to the nursing major must be completed by September 15 (applications accepted between August 15 and September 15) for spring admission consideration. Additional information and advisement is available through the Department of Nursing.

Students must be admitted to Bemidji State University prior to applying for admission to the nursing major.
All official transcripts of credits transferred from other colleges and universities must be available in the BSU Admissions Office by September 15 for spring admission consideration to the nursing major.

Applicants must have completed at least 30 semester credits, including the designated required non-nursing courses listed as follows, for admission consideration.
BIOL 1110 Human Biology (4 credits)
BIOL 2110 Human Anatomy and Physiology (5 credits)
CHEM 1111 General Chemistry I (4 credits) [contact Nursing Department]
PSY 1100 Introductory Psychology (4 credits)
PSY 3237 Lifespan Development (4 credits)

A grade of C or higher is required in the designated prerequisite courses for admission to the nursing major. If a grade of C or above is not earned the first time the course is taken, a grade of C or above must be earned the second time the course is taken. Designated course requirements for the major may not be taken on a pass/no credit basis.
Admission to the nursing major is competitive and limited. Admission is dependent on the number of applications and evidence of meeting the listed requirements.

A cumulative grade point average of 2.5 or higher (on a 4.00 scale) and satisfactory completion of all designated required courses qualifies the student for the applicant pool, but does not guarantee admission to the major.

A completed application for the nursing major and the additional materials requested in the application must be available in the Department of Nursing by September 15. The application packet includes information concerning requirements such as immunization, malpractice insurance, federal and state background checks, and American Heart Association Health Care Provider CPR and CNA Certifications.

**II. PROGRESSION**

All nursing and non-nursing courses required for the major must reflect a letter grade of C or better.

**III REQUIRED COURSES**

A. Non-Nursing Courses

COMPLETE THE FOLLOWING COURSES:

- BIOL 1110 Human Biology (4 credits)
- BIOL 2110 Human Anatomy and Physiology (5 credits)
- BIOL 3755 Medical Microbiology (3 credits)
- CHEM 1111 General Chemistry I (4 credits)
- PSY 1100 Introductory Psychology (4 credits)
- PSY 3237 Lifespan Development (4 credits)

B. Nursing Courses

COMPLETE THE FOLLOWING COURSES:

- NRSG 2000 Introduction to Professional Nursing (3 credits)
- NRSG 2203 Introduction to Clinical Practice (4 credits)
- NRSG 2204 Health Assessment (3 credits)
- NRSG 2207 Nursing Pharmacology (3 credits)
- NRSG 3000 Elements of Scholarly Practice (2 credits)
- NRSG 3001 Adult/Gerian Health (6 credits)
- NRSG 3003 Practicum: Adult/Gerian (4 credits)
- NRSG 3120 Transcultural Nursing (2 credits)
- NRSG 3201 The Childbearing Family (2 credits)
- NRSG 3202 Child/Adolescent Health (4 credits)
- NRSG 3203 Practicum: The Family (4 credits)
- NRSG 4000 Senior Experience Nursing (1 credit)
- NRSG 4001 Mental Health Nursing (4 credits)
- NRSG 4002 Palliative Care Nursing (2 credits)
- NRSG 4003 Practicum: Rural Communities/Populations (4 credits)
- NRSG 4100 Nursing Research (3 credits)
- NRSG 4110 Community Health Nursing (3 credits)
- NRSG 4200 Nursing Leadership And Management (4 credits)
- NRSG 4201 Practicum: Role Integration (6 credits)

**Suggested Semester Schedule for Nursing, B.S. major 4-YEAR TRACK**

Freshman

- BIOL 1110 Human Biology (4 credits)
- BIOL 2110 Human Anatomy and Physiology (5 credits)
- CHEM 1111 General Chemistry I (4 credits)
- PSY 1100 Introductory Psychology (4 credits)
- PSY 3237 Lifespan Development (4 credits)
- Other electives or Liberal Education requirements
- Recommend completion of CPR and CNA Certifications during freshman year or summer

Sophomore

- BIOL 3755 Medical Microbiology (3 credits)
- NRSG 2000 Introduction to Professional Nursing (3 credits)
- NRSG 2203 Introduction to Clinical Practice (4 credits)
- NRSG 2204 Health Assessment (3 credits)
- NRSG 2207 Nursing Pharmacology (3 credits)

Junior

- NRSG 3000 Elements of Scholarly Practice (2 credits)
- NRSG 3001 Adult/Gerian Health (6 credits)
- NRSG 3003 Practicum: Adult/Gerian (4 credits)
- NRSG 3120 Transcultural Nursing (2 credits)
- NRSG 3201 The Childbearing Family (2 credits)
- NRSG 3202 Child/Adolescent Health (4 credits)
- NRSG 3203 Practicum: The Family (4 credits)
- NRSG 4100 Nursing Research (3 credits)

Senior

- NRSG 4000 Senior Experience Nursing (1 credit)
- NRSG 4001 Mental Health Nursing (4 credits)
- NRSG 4002 Palliative Care Nursing (2 credits)
- NRSG 4003 Practicum: Rural Communities/Populations (4 credits)
- NRSG 4110 Community Health Nursing (3 credits)
- NRSG 4200 Nursing Leadership And Management (4 credits)
- NRSG 4201 Practicum: Role Integration (6 credits)

## Nursing Courses

**NRSG 2000 Introduction to Professional Nursing (3 credits)**
Introduces concepts related to the discipline of nursing, health and health care, and the social context of the profession, including attention to rural health care. Addresses psychosocial and spiritual dimensions of nursing care, introducing therapeutic communication and socialization into nursing practice.

**NRSG 2203 Introduction to Clinical Practice (4 credits)**
The nursing process as a framework for providing a holistic approach to nursing care. Focuses on knowledge and practice related to basic needs and selected interventions, including medication administration. Learning environments include classroom and laboratory settings. Prerequisites: 4 year track enrollee, NRSG 2000.

**NRSG 2204 Health Assessment (3 credits)**
Introduces beginning theory and practice for systematic data collection about the health status of individuals, including the identification of characteristics common to particular age groups. Guides the student in distinguishing between normal and abnormal profiles and potential health concerns. Learning environments include classroom and laboratory settings. Prerequisites: 4-year track enrollee, BIOL 1110, BIOL 2110, and NRSG 2000.

**NRSG 2207 Nursing Pharmacology (3 credits)**
This course is designed to develop theoretical knowledge of pharmacotherapeutics for nursing practice. The focus of major drug classifications and specific medicinal agents will be discussed in relation to pharmacodynamics, pharmacokinetics, therapeutic uses, adverse reactions, and precautions. Prerequisites: enrollment in 4 year nursing program, NRSG 2000.

**NRSG 3000 Elements of Scholarly Practice (2 credits)**
Examines forms of knowledge, the interrelationship between knowledge and practice, and the development of critical reflective thought. Introduces selected nursing theories, evidence-based practice, and an exploration of implications for nursing practice approaches. Includes study of ingredients expected in formal paper presentations. Prerequisites: 4-year track enrollee, NRSG 2000, NRSG 2004, NRSG 2203, NRSG 2204, and NRSG 3120.

**NRSG 3001 Adult/Gerian Health (6 credits)**
Focuses on common physiological health and illness concerns experienced by adults and gerians. Studies nursing care management approaches and health care resources supportive of promotion, attainment, and preservation of health and amelioration of suffering. Includes related psychosocial, nutritional, and pharmacological dimensions of nursing practice. Prerequisites: 4-year track enrollee, NRSG 2000, NRSG 2203, NRSG 2204. Corequisite: NRSG 3003. Pre- or corequisite NRSG 3120.

**NRSG 3003 Practicum: Adult/Gerian (4 credits)**
The nursing process, incorporating a holistic view, serves as the framework for the provision of nursing care to adults and gerians. Nursing practice roles and abilities relate to promotion, attainment, and preservation of health, amelioration of suffering, and supporting a peaceful death. Learning experiences include laboratory and a variety of rural health care environments. Prerequisite: 4-year track enrollee, NRSG 2000, NRSG 2203, NRSG 2204. Corequisite: NRSG 3001. Pre- or corequisite NRSG 3120.

**NRSG 3100 Concepts of Nursing and Health Care (3 credits)**
Introduces concepts emphasized in the program. Explores the nature of the discipline within professional and social contexts. Concepts of health are studied in relation to professional practice roles. Examines philosophies, theories, and frameworks for nursing practice. Students also address values clarification and ethical decision making. Prerequisite: Current RN license and admitted to major.

**NRSG 3120 Transcultural Nursing (2 credits)**
Health beliefs and practices of clients from diverse backgrounds, including the concept of rural culture and cultural barriers to quality health care. Theoretical frameworks for performing a cultural assessment and for planning and implementing culturally appropriate nursing care. Provides opportunity for students to reflect on culture in relation to oneself and nursing practice roles. Prerequisite: Admitted to major.

**NRSG 3140 Advanced Health Assessment (3 credits)**
Integrates understanding of altered physiologic states and principles of psychosocial and holistic nursing into a comprehensive approach to advanced nursing assessment for individuals across the lifespan. Guides the student in collecting and interpreting history information, physical information, and results of diagnostic studies. Analysis of information results in nursing diagnoses. Emphasis on advanced assessment process to evaluate response to nursing care. Prerequisite: Current unencumbered RN license; Prerequisite/Co-requisite: NRSG 3100.

**NRSG 3150 Integrative and Cultural Nursing (3 credits)**
Examines the health beliefs and practices of clients from diverse backgrounds, including the concept of rural culture and cultural barriers to quality health care. Theoretical frameworks for performing a cultural assessment and for planning and implementing culturally appropriate nursing care. Includes opportunities for students to reflect on culture in relation to oneself and nursing practice roles. Also explores integrative medicine as a component of cultural practice, values, and beliefs in response to a growing rate of patient demand for wellness-promoting integrative therapies. Prerequisites: Current unencumbered RN license; Prerequisite/Co-requisite: NRSG 3100.

**NRSG 3200 Health Education in Nursing Practice (3 credits)**
This course examines the role of health education in nursing practice and healthcare. Concepts, principles, and theories related to teaching-learning processes are addressed. The development, delivery, and evaluation of health education are studied in relation to healthcare and professional nursing roles. Group dynamics are also examined. Prerequisite: Current unencumbered RN license; Prerequisite/Co-requisite: NRSG 3100.

**NRSG 3201 The Childbearing Family (2 credits)**
Introduces family assessment as a framework for nursing practice. Incorporates a holistic approach in the nursing care of families and newborns during an uncomplicated perinatal experience. Prerequisites: 4-year track enrollee, NRSG 2000, NRSG 2203, NRSG 2204. Corequisites: NRSG 3202 and NRSG 3203. Pre- or Corequisite: NRSG 3120.

**NRSG 3202 Child/Adolescent Health (4 credits)**
Focuses on health and illness concerns experienced by infants, children, and adolescents. Studies nursing care management approaches and health care resources supportive of promotion, attainment, and preservation of health and amelioration of suffering. Includes nutritional and pharmacological dimensions of nursing practice. Prerequisites: 4-year track enrollee, NRSG 2000, NRSG 2203, NRSG 2204. Corequisites: NRSG 3201 and NRSG 3203. Pre-Corequisite: NRSG 3120.

**NRSG 3203 Practicum: The Family (4 credits)**
The nursing process, including family assessment, serves as the framework for providing a holistic approach in the nursing care of childbearing families, children, adolescents, and adults. Nursing practice roles and abilities relate to promotion, attainment, and preservation of health and amelioration of suffering. Learning experiences include laboratory and a variety of rural health care environments. Prerequisite: 4-year track enrollee; Corequisites: NRSG 3201 and NRSG 3202.

**NRSG 3240 Information Management and Collaborative Communication (3 credits)**
Introduces the concepts of delivering high quality health care focused on inter-professional communication, and the use of information management and patient care technology. Prerequisites: Current unencumbered RN license; Prerequisite/Co-requisite: NRSG 3100.

**NRSG 3300 Health Care Policy, Finance, and Regulatory Environments (3 credits)**
Provides an overview of the health care system in the United States. Examines and analyzes current health care policies at a federal, state, and facility level. Prerequisites: Current unencumbered RN license; Prerequisite/Co-requisite: NRSG 3100.

**NRSG 3920 Directed Group Study (1-4 credits)**
Provides an in-depth study of a selected topic. Course title, credit, and prerequisites vary by course offering. Selected courses open to general university students. Prerequisite: 4-year track or RN enrollee.

**NRSG 4000 Senior Experience Nursing (1 credit)**
This course prepares the student for successful licensure examination, career planning, and initial job search activities. Synthesis of previous learning and practical steps to begin a nursing career are emphasized. Prerequisites: Successful completion of required 3000 level NRSG courses.

**NRSG 4001 Mental Health Nursing (4 credits)**
Focuses on the psychodynamics of human behavior in relation to the mental health/mental illness spectrum and common lifespan concerns. In addition to assessment, nursing care management includes interventions such as psychopharmacologic approaches and therapeutic communication. Examines nursing and health care delivery resources that address mental health needs, especially those of people living in rural areas. Prerequisites: 4-year track enrollee and all 3000-level NRSG courses required for 4-year track.

**NRSG 4002 Palliative Care Nursing (2 credits)**
Examines nursing care needs common to individuals and families receiving palliative and end-of-life care. Emphasizes nursing practice representing a holistic, interdisciplinary, client-centered approach aimed at ameliorating suffering and supporting a peaceful death. Health care resources and issues related to the provision of palliative care are addressed. Prerequisites: 4-year track enrollee and all 3000-level NRSG courses required for 4-year track.

**NRSG 4003 Practicum: Rural Communities/Populations (4 credits)**
Provides opportunity to use the nursing process with a community/population as the client. Nursing practice roles and abilities relate to health promotion, attainment, and preservation of optimal health of clients, including clients with mental health needs, in diverse rural community settings. Prerequisite: 4-year track enrollee; Corequisites: NRSG 4001 and NRSG 4110.

**NRSG 4100 Nursing Research (3 credits)**
Considers the role and use of nursing research in nursing practice. An introduction to the research process is provided and interpreted for its utilization in nursing practice. Prerequisites: Admitted to major.

**NRSG 4101 Nursing Research RN-BS (3 credits)**
Considers the role and use of nursing research in nursing practice . An introduction to the research process is provided and interpreted for its utilization in nursing practice. Prerequisite(s): Current unencumbered RN license; Prerequisite/Co-requisite: NRSG 3100.

**NRSG 4110 Community Health Nursing (3 credits)**
Emphasizes use of the nursing process as the framework for addressing the community/population as client. Nursing role abilities inherent in the conduct of community/population-focused practice. Contemporary community topics, health concerns related to selected populations, and nursing/health care delivery in diverse community (including rural) contexts. Prerequisite: 4-year track or RN enrollee and all 3000-level NRSG courses required for 4-year track or RN program except NRSG 3920.

**NRSG 4116 Community and Family Health Nursing (4 credits)**
Emphasizes the use of the nursing process as the framework for addressing the family/community/population as client. Nursing role abilities inherent in the conduct of family/community/population-focused practice. Prerequisites: Current unencumbered RN license; Prerequisite/Co-requisite: NRSG 3100.

**NRSG 4120 Nursing Practicum: Community (3 credits)**
Provides opportunity to use the nursing process with the community and family as client. Focuses on client populations in diverse rural community settings and participation in professional nursing practice roles. Prerequisites: Current unencumbered RN license; Prerequisite/Co-requisite: NRSG 3100; Co-requisite: NRSG 4116.

**NRSG 4200 Nursing Leadership And Management (4 credits)**
A study of leadership/management theories, concepts, and strategies as applied to professional nursing roles and practice. Topics relate to nursing care delivery patterns, leadership/management processes, issues, and resources. The contemporary social context of nursing (including rural settings), social action, and the responsibilities of membership in the profession are addressed. Prerequisites: 4-year track enrollee and all required 3000-level NRSG courses.

**NRSG 4201 Practicum: Role Integration (6 credits)**
A comprehensive practicum supportive to the continued development of role expectations of the baccalaureate graduate. Emphasizes providing, designing, managing, and coordinating nursing care within a selected rural setting. Taken final semester of program enrollment in major courses. Prerequisites: 4-year track enrollee, NRSG 4001, NRSG 4003, NRSG 4100, and NRSG 4110; Co-requisites: NRSG 4200 and NRSG 4230.

**NRSG 4210 Nursing Leadership and Management RN-BS (3 credits)**
A study of leadership/management theories, concepts, and strategies as applied to professional nursing roles and practice. Topics relate to nursing care delivery patterns, leadership/management processes, issues, and resources. Prerequisite: Current unencumbered RN license; Prerequisite/Co-requisite: NRSG 3100.

**NRSG 4240 Evidence, Practice, and Profession (3 credits)**
Students become actively involved in an evidence-based project related to their nursing practice or area of interest. The project allows students to synthesis their nursing knowledge, experience, and research ability to produce a significant work that increases the body of nursing knowledge. Prerequisites: Current unencumbered RN license; Prerequisite/Co-requisite: NRSG 3100.

**NRSG 4400 Introduction to Camp Nursing (3 credits)**
This course will review the basics of camp nursing including the various roles of the nurse at camp, scope and standards of camp nursing, camp accreditation, clinical needs assessment, and camp nursing resources.

**NRSG 4407 Roles and Responsibilities of the Camp Nurse (3 credits)**
This course emphasizes the nursing process as a framework for providing care of campers and staff members. The content focuses on knowledge and practice related to holistic assessment strategies, medication administration, and common illnesses and injuries in the camp setting. Corequisite: NRSG 4400/5400

## All-University Courses

The course numbers listed below, not always included in the semester class schedule, may be registered for by consent of the advisor, instructor, or department chair, or may be assigned by the department when warranted. Individual registration requires previous arrangement by the student and the completion of any required form or planning outline as well as any prerequisites.

1910, 2910, 3910, 4910 DIRECTED INDEPENDENT STUDY
1920, 2920, 3920, 4920 DIRECTED GROUP STUDY
1930, 2930, 3930, 4930 EXPERIMENTAL COURSE
1940, 2940, 3940, 4940 IN-SERVICE COURSE
1950, 2950, 3950, 4950 WORKSHOP, INSTITUTE, TOUR
1960, 2960, 3960, 4960 SPECIAL PURPOSE INSTRUCTION
1970, 2970, 3970, 4970 INTERNSHIP
1980, 2980, 3980, 4980 RESEARCH
1990, 2990, 3990, 4990 THESIS

# Philosophy

The name of philosophy translates literally to 'love of wisdom.' Wisdom, as opposed to any sort of specialized knowledge, is the ability to discern what sorts of knowledge and skills lead to a better life for individuals and communities. The pursuit a good life requires individuals and communities to subject their priorities to careful scrutiny. Philosophy promotes a thoughtful engagement with the world around us through a careful analysis of the problems that confront us on a daily basis.

Bemidji State University's philosophy program emphasizes the history of philosophy and applied ethics. We examine closely how current debates in politics, law, religion, and the arts are grounded in longstanding theoretical debates. In our program, students are taught to read, write, and speak on those debates. In this way, students will develop knowledge and skills applicable to public service, law school, human rights, public policy, the arts, and religious leadership training.

**Programs**

- Philosophy *minor*

**Career Directions**

Business
Communications
Government
Higher Education
Law
Ministry
Nonprofit Organizations
Public Service
Also: Graduate Study

**Preparation**

*Recommended High School Courses*
Critical Thinking
Humanities
Science
Debate Recommended Activity

## Philosophy *minor*

Required Credits: 18
Required GPA: 2.00

**I REQUIRED COURSES**

COMPLETE THE FOLLOWING COURSES:

- PHIL 2220 Ethics (3 credits)
- PHIL 2230 Logic (3 credits)

**II REQUIRED COURSES IN THE HISTORY OF PHILISOPHY**

SELECT 6 CREDITS FROM THE FOLLOWING COURSES:

- PHIL 3310 Ancient and Medieval Philosophy (3 credits)
- PHIL 3320 Modern Philosophy (3 credits)
- PHIL 3330 Nineteenth Century Philosophy (3 credits)
- PHIL 3340 Twentieth-Century Philosophy (3 credits)
- PHIL 3360 Asian Philosophy (3 credits)
- PHIL 3380 Political Philosophy (3 credits)

**III REQUIRED ELECTIVES**

SELECT 6 SEMESTER CREDITS OF ELECTIVES FROM PHILOSOPHY COURSES

## Philosophy Courses

**PHIL 1100 Introduction to Philosophy (3 credits)**
Introduction to a variety of philosophical issues and the philosophers, past and present, who have tried to resolve them. Selection of readings and approach vary with instructor. Liberal Education Goal Area 6.

**PHIL 2220 Ethics (3 credits)**
Introduction to the philosophical treatment of selected moral issues; alternative theories of ethical right and wrong, good and bad will also be addressed. Liberal Education Goal Area(s) 6 & 9.

**PHIL 2230 Logic (3 credits)**
Methods of distinguishing between correct and incorrect reasoning. Special emphasis on deductive reasoning and informal fallacies. Liberal Education Goal Area 4.

**PHIL 2240 Aesthetics (3 credits)**
Philosophical problems involved in judgment and experience of beauty and ugliness in nature and art of various kinds. Might not be offered every year. Liberal Education Goal Area 6.

**PHIL 2250 Human Nature (3 credits)**
Various views of the nature of human beings. Might not be offered every year. Liberal Education Goal Area(s) 6 & 8.

**PHIL 2260 Women and Philosophy (3 credits)**
A historical survey of the views of patriarchal and feminist thinkers from Plato to the present. Might not be offered every year. Liberal Education Goal Areas 6 & 8.

**PHIL 2290 Topics or Philosophers (3 credits)**
Study of a philosophical subject or movement or a philosopher or group of philosophers, as announced in the schedule. Might not be offered every year.

**PHIL 2310 Philosophy in Literature (3 credits)**
Exploration of a variety of literary texts with an emphasis on the philosophical issues they raise. Might not be offered every year. Liberal Education Goal Area 6.

**PHIL 2330 Philosophies of Non-Violence (3 credits)**
Philosophical foundations of non-violent conflict resolution as they have been articulated in a variety of historical and cultural contexts. Questions regarding moral, political, and religious values, as well as related metaphysical and epistemological issues, will be addressed. Might not be offered every year. Liberal Education Goal Areas 6 & 9.

**PHIL 2925 People and the Environment: Environmental Ethics (3 credits)**
The purpose of this section of People and the Environment is to examine our moral obligations to the environment. No matter how strong these moral obligations may be, the only way to follow through with them is in the political arena. This course is therefore largely devoted to exploring the intersection of environmental ethics and politics. The course explores a number of environmental issues, the theoretical and practical impasses of the environmental movement, and environmental philosophy, as well as the challenge of mitigating global climate change. Liberal Education Goal Area 10.

**PHIL 2954 Study-Travel, Humanities and the Arts (1-6 credits)**
Study-Travel course in Philiosophy for Lib Ed Goal Area 6.

**PHIL 3310 Ancient and Medieval Philosophy (3 credits)**
History of European philosophy from Thales to William of Occam. Might not be offered every year. Liberal Education Goal Areas 6 & 8.

**PHIL 3320 Modern Philosophy (3 credits)**
Historical survey of 17th and 18th century European philosophy. Might not be offered every year. Liberal Education Goal Area 6.

**PHIL 3330 Nineteenth Century Philosophy (3 credits)**
History of European philosophy from Hegel to Nietzsche. Might not be offered every year. Liberal Education Goal Area 6.

**PHIL 3340 Twentieth-Century Philosophy (3 credits)**
This course covers the major movements in twentieth-century Western philosophy, including contemporary analytic philosophy and continental philosophy. Might not be offered every year. Liberal Education Goal Areas 6 & 7.

**PHIL 3360 Asian Philosophy (3 credits)**
Historical survey of influential philosophies and philosophers of Asia. Might not be offered every year. Liberal Education Goal Areas 6 & 8.

**PHIL 3380 Political Philosophy (3 credits)**
Various philosophical views on the nature of human society and the state. Might not be offered every year.

**PHIL 3390 Marxist Philosophy (3 credits)**
An in-depth introduction to the philosophical perspective of Marxism as it originally developed and as it has been subsequently interpreted and applied from the latter 19th century to the present. Might not be offered every year. Liberal Education Goal Areas 6 & 8.

## All-University Courses

The course numbers listed below, not always included in the semester class schedule, may be registered for by consent of the advisor, instructor, or department chair, or may be assigned by the department when warranted. Individual registration requires previous arrangement by the student and the completion of any required form or planning outline as well as any prerequisites.

1910, 2910, 3910, 4910 DIRECTED INDEPENDENT STUDY
1920, 2920, 3920, 4920 DIRECTED GROUP STUDY
1930, 2930, 3930, 4930 EXPERIMENTAL COURSE
1940, 2940, 3940, 4940 IN-SERVICE COURSE
1950, 2950, 3950, 4950 WORKSHOP, INSTITUTE, TOUR
1960, 2960, 3960, 4960 SPECIAL PURPOSE INSTRUCTION
1970, 2970, 3970, 4970 INTERNSHIP
1980, 2980, 3980, 4980 RESEARCH
1990, 2990, 3990, 4990 THESIS

# Physical Education

The vision of the Department of Human Performance, Sport, and Health is "preparing and empowering future professionals to promote physical activity, health, and sport."

The mission of the Department of Human Performance, Sport, and Health is "to provide students with opportunities to excel through purposeful experiences resulting in skills, including leadership, communication, use of technology, and appreciation of individual differences. Through our programs, students develop an appreciation of the contributions of physical activity, wellness, and sport to society."

The Physical Education teacher licensure program, Minnesota Board of Teaching approved, leads to licensure for teaching physical education in K-12 schools. It also prepares students for graduate school. The curriculum includes studies in the basic and exercise sciences, methods and activities, curricular development, and assessment as well as professional education. Hands-on learning is emphasized in laboratory and methods classes and includes teaching experiences in the field.

The Department of Human Performance, Sport, and Health offers minors and a coaching specialist program that provide students with the skills and expertise to work in physical activity settings, coach teams, or teach special needs students. Also, in addition to offering a variety of activities classes that enhance students' liberal education, the department works with Campus Recreation and Athletics to offer a broad range of learning experiences.

**Programs**

- Physical Education, B.S. ((Teacher Licensure))*major*
- Developmental/ Adapted Physical Education, B.S. ((Teacher Licensure))*minor*
- Human Performance Minor *minor*
- Coaching Certificate *cert*

**Career Directions**

Athletic Coaching

Developmental Adapted Physical Education Teacher
Physical Education Teaching
Teaching physical activities in a variety of settings
Also: Graduate Study and Professioal Programs

**Preparation**

Recommended High School Courses

Biology
Chemistry
Coaching
Exercise Science
Health
Life Sciences
Physical Education
Sports
Wellness

## Physical Education, B.S. *major* (Teacher Licensure)

Required Credits: 80
Required GPA: 2.50

**I REQUIRED COURSES**

SELECT 1 OF THE FOLLOWING COURSES:

- BIOL 1110 Human Biology (4 credits)
- BIOL 1211 Introductory Biology I (4 credits)

COMPLETE THE FOLLOWING COURSES:

- BIOL 2110 Human Anatomy and Physiology (5 credits)
- HLTH 2100 First Aid and CPR/AED (1 credit)
- PHED 2100 Foundations of Physical Education, Exercise Science, and Sport (3 credits)
- PHED 3100 Motor Development (2 credits)
- PHED 3110 Motor Learning (2 credits)
- PHED 3120 Psychology of Sport (2 credits)
- PHED 3200 Introduction to Sport Biomechanics (3 credits)
- PHED 3300 Physiology of Exercise and Nutrition (3 credits)
- PHED 3449 Socio-Culture and Ethical Issues in Sport (3 credits)
- PHED 3504 Teaching Rhythms and Dance (2 credits)
- PHED 3505 Teaching Elementary Physical Education (2 credits)
- PHED 3604 Teaching Team Sports (2 credits)
- PHED 3605 Teaching Individual Sports (2 credits)
- PHED 3607 Teaching Fitness (2 credits)
- PHED 4400 Curriculum and Assessment in Physical Education (3 credits)
- PHED 4500 Inclusive Physical Education (3 credits)

COMPLETE THE FOLLOWING COURSE:

- PHED 4920 DGS: (1 credit)

COMPLETE THE FOLLOWING COURSE for 1 credit:

- PHED 4970 Internship (1-12 credits)

**II REQUIRED AQUATICS ELECTIVES**

SELECT 1 OF THE FOLLOWING COURSES:

- PHED 1116 Advanced Swimming (1 credit)
- PHED 2630 Lifeguard Training (3 credits)
- PHED 2640 Water Safety Instructor (3 credits)

**REQUIRED PROFESSIONAL EDUCATION COURSES**

COMPLETE THE FOLLOWING COURSES:

- ED 3100 Introduction to the Foundations of Public School Education (3 credits)
- ED 3110 Educational Psychology (3 credits)
- ED 3140 Human Relations In Education (3 credits)
- ED 3350 Pedagogy: Planning for Instruction (3 credits)
- ED 3780 Adaptation and Management: Designing the Learning Environment (3 credits)
- ED 4737 Content Area Reading (3 credits)
- ED 4799 The Professional Teacher (1 credit)
- HLTH 3400 Health and Drugs in Society (2 credits)

Complete 12 credits of student teaching:

- ED 4830 Student Teaching - Secondary (1-12 credits)

**SUGGESTED SEMESTER SCHEDULE FOR PHYSICAL EDUCATION MAJOR, B.S. (TEACHER LICENSURE)**

Students are encouraged to take the required Physical Education, B.S. courses in approximate numerical order. This schedule is intended to help students plan their courses in an orderly fashion; however, these are only suggestions. Students are encouraged to consult the course descriptions for prerequisites.

Freshman

- BIOL 1110 Human Biology (4 credits)
- PHED 2100 Foundations of Physical Education, Exercise Science, and Sport (3 credits)
- Liberal Education requirements

Sophomore

- BIOL 2110 Human Anatomy and Physiology (5 credits)
- HLTH 2100 First Aid and CPR/AED (1 credit)
- PHED 3100 Motor Development (2 credits)
- PHED 3110 Motor Learning (2 credits)
- PHED 3120 Psychology of Sport (2 credits)
- PHED 3200 Introduction to Sport Biomechanics (3 credits)
- PHED 3300 Physiology of Exercise and Nutrition (3 credits)
- Required Electives in Major
- Liberal Education requirements
- Take the Pre-professional Skills Test

Junior

- Begin Professional Education Courses
- PHED 3449 Socio-Culture and Ethical Issues in Sport (3 credits)
- PHED 3504 Teaching Rhythms and Dance (2 credits)
- PHED 3505 Teaching Elementary Physical Education (2 credits)
- PHED 3604 Teaching Team Sports (2 credits)
- PHED 3605 Teaching Individual Sports (2 credits)
- PHED 3607 Teaching Fitness (2 credits)
- Required Electives in Major
- Liberal Education requirements

Senior

- PHED 4400 Curriculum and Assessment in Physical Education (3 credits)
- PHED 4500 Inclusive Physical Education (3 credits)
- PHED 4920 DGS: (1 credit)
- PHED 4970 Internship (1-12 credits)
- Complete Professional Education Courses including student teaching

## Developmental/ Adapted Physical Education, B.S. *minor* (Teacher Licensure)

Required Credits: 32
Required GPA: 2.50

**I REQUIRED SPECIAL EDUCATION COURSES**

COMPLETE THE FOLLOWING COURSES:

- SPED 3600 Study of the Learner with Special Needs (3 credits)
- SPED 3655 Due Process in Special Education I: Individual Education Plan (3 credits)
- SPED 3650 Collaborative Techniques for Special Educators (3 credits)

**II REQUIRED PHYSICAL EDUCATION COURSES**

COMPLETE THE FOLLOWING COURSES:

- PHED 4211 D/APE History, Philosophy, Diagnosis and Assessment (3 credits)
- PHED 4212 Developmental Techniques for Adapted Physical Education (3 credits)
- PHED 4217 D/APE Sport and Recreation for Individuals with Disabilities (3 credits)
- PHED 4218 Adapted Aquatics (2 credits)

**III REQUIRED READING COURSES**

COMPLETE THE FOLLOWING COURSES:

- ED 3201 Language Arts I (3 credits)
- ED 3202 Language Arts II (3 credits)
- ED 3203 Language Arts III (3 credits)

**IV REQUIRED PRACTICAL EXPERIENCE**

COMPLETE THE FOLLOWING COURSE, for 3 credits:

- PHED 4970 Internship (1-12 credits)

## Human Performance Minor *minor*

Required Credits: 20
Required GPA: 2.00

**I REQUIRED COURSES**

COMPLETE THE FOLLOWING COURSES:

- BIOL 1110 Human Biology (4 credits)
  *or* BIOL 1211 Introductory Biology I (4 credits)
- HLTH 2100 First Aid and CPR/AED (1 credit)
- PHED 2100 Foundations of Physical Education, Exercise Science, and Sport (3 credits)
- PHED 3300 Physiology of Exercise and Nutrition (3 credits)
- PHED 4309 Legal Aspects of Sport, Health, and Fitness (3 credits)

COMPLETE THE FOLLOWING COURSE:

- PHED 4970 Internship (1-12 credits)

**II REQUIRED OPTION**

Select one of the following options (Physical Education and Exercise Science majors may not double count courses in either option.

**II REQUIRED OPTION**

Option A. Pedagogy

SELECT 3 OF THE FOLLOWING COURSES:

- PHED 2640 Water Safety Instructor (3 credits)
- PHED 3100 Motor Development (2 credits)
  *or* PHED 3110 Motor Learning (2 credits)
- PHED 3504 Teaching Rhythms and Dance (2 credits)
- PHED 3505 Teaching Elementary Physical Education (2 credits)
- PHED 3604 Teaching Team Sports (2 credits)
- PHED 3605 Teaching Individual Sports (2 credits)
- PHED 3607 Teaching Fitness (2 credits)

Option B. Fitness and Training

SELECT 3 OF THE FOLLOWING COURSES:

- HLTH 3300 Nutrition (3 credits)
- PHED 1240 Skills for Life: Techniques of Neuromuscular Relaxation (1 credit)
- PHED 3100 Motor Development (2 credits)
- PHED 3200 Introduction to Sport Biomechanics (3 credits)
- PHED 3504 Teaching Rhythms and Dance (2 credits)
- PHED 4160 Advanced Fitness Assessment & Prescription-Aerobic (3 credits)
- PHED 4170 Advanced Principles for Strength and Speed Training Exercise (3 credits)

## Coaching Certificate *cert*

Required Credits: 12
Required GPA: 2.00

**I REQUIRED THEORY COURSES**

COMPLETE THE FOLLOWING COURSES:

- HLTH 2100 First Aid and CPR/AED (1 credit)
- PHED 3090 Sport Physiology (2 credits)
- PHED 3120 Psychology of Sport (2 credits)
- PHED 3190 Athletic Training (2 credits)
- PHED 3690 Coaching Principles (2 credits)

**II REQUIRED ELECTIVE COURSES**

SELECT 1 OF THE FOLLOWING COURSES:

- PHED 3710 Basketball Coaching (2 credits)
- PHED 3720 Football Coaching (2 credits)
- PHED 3740 Ice Hockey Coaching (2 credits)
- PHED 3750 Soccer Coaching (2 credits)
- PHED 3770 Swimming Coaching (2 credits)
- PHED 3790 Track and Field Coaching (2 credits)
- PHED 3800 Volleyball Coaching (2 credits)

**III REQUIRED PRACTICUM**

COMPLETE THE FOLLOWING COURSE, for 1 credit:

- PHED 4970 Internship (1-12 credits)

## Physical Education Courses

**PHED 1114 Skills For Life: Beginning Swimming (1 credit)**
An activity course for non-swimmers. Emphasis will be on personal adjustment to the water, basic strokes, and fundamentals of water safety. Liberal Education Goal Area 11.

**PHED 1115 Intermediate Swimming (1 credit)**
An activity course for swimmers who have the ability to jump into deep water, swim a front stroke 25 yards, and swim on the back 25 yards. Emphasis will be on five basic strokes, elementary diving, and related aquatic skills. Course may lead to American Red Cross Learn to Swim Certification Level 4 or 5. May not be offered every year.

**PHED 1116 Advanced Swimming (1 credit)**
An activity course for swimmers who can swim in satisfactory form 25 yards of each of the five basic strokes (back crawl, breaststroke, front crawl, elementary backstroke, sidestroke). Emphasis will be on developing and refining thirteen strokes, diving and other advanced aquatic skills. Course leads to American Red Cross Learn to Swim Certification Level 6 - Fitness Swimmer. This course is preparatory for the Water Safety Instructor course.

**PHED 1120 Introduction to Sea Kayaking (1 credit)**
An activity course that introduces the basics of kayak history, design, skills, and equipment. Taught through lecture, demonstration, and both on- and off-the-water skills practice.

**PHED 1139 Beginning Scuba Diving (1 credit)**
Upon completion of this course, students will understand and be able to demonstrate the safe scuba diving practices of the Professional Association of Dive Instructors (PADI) curriculum. Focuses on classroom knowledge development and confined-water skill development. Equipment and supplies are provided. This course is phase 1 of the PADI certification course. Students wishing to complete the certification as an Open Water Diver will need to take additional instruction. Liberal Education Goal Area 11.

**PHED 1180 Canoeing (1 credit)**
An activity course that introduces the fundamental skills of canoeing. Emphasis is on safety and on tandem and solo paddling techniques. Prerequisite: swimming test or consent of instructor. Liberal Education Goal Area 11.

**PHED 1190 Skills for Life: Sailing (1 credit)**
An activity course that introduces the fundamental skills of sailing. Development of skills and knowledge of safety, nomenclature, designs, rigging, handling, maintaining, and racing for sailboats. Prerequisite: swimming test or consent of instructor. Liberal Education Goal Area 11.

**PHED 1200 Introduction To Rock Climbing (1 credit)**
Introduction to the basics of Top Rope Rock Climbing and Rappelling through practice at the BSU Climbing Wall and/or other sites. Also includes climbing communication, "leave no trace" climbing techniques, techniques for setting anchors, and discussion of environmental values. Liberal Education Goal Area 11.

**PHED 1230 Yoga (1 credit)**
This course introduces students to basic yoga techniques and allows practice and development of the physical skills needed to perform approximately 40 basic exercises and postures. Liberal Education Goal Area 11.

**PHED 1240 Skills for Life: Techniques of Neuromuscular Relaxation (1 credit)**
An introduction to skill development in Jacobson's techniques to improve awareness of muscular tension and procedures for enhanced neuromuscular relaxation. Origins of stress and the body's responses to stress and stress management techniques will be included. Liberal Education Goal Area 11.

**PHED 1260 Skills for Life: Cycling (1 credit)**
Introduction to and practice in bicycling either off-road or road riding. Basic maintenance skills such as adjusting derailleurs, brakes and changing tires will be presented. Information on cycling for fitness, racing and bicycle touring will be presented. Liberal Education Goal Area 11.

**PHED 1300 Skills for Life: Weight Training (1 credit)**
An activity course that consists of an individualized or group weight program dealing with the fundamentals and practice of resistance exercise techniques for the development of the human body. Liberal Education Goal Area 11.

**PHED 1380 Skills for Life: Self Defense (1 credit)**
An activity course that examines and applies preventative and precautionary measures, assault awareness information, and most commonly needed personal self-defense skills and techniques. Liberal Education Goal Area 11.

**PHED 1430 Skills for Life: Archery (1 credit)**
An activity course that examines and applies the fundamentals and skills of archery. Selection and care of equipment, instruction and practice of shooting skills and scoring in target archery will be included. Liberal Education Goal Area 11.

**PHED 1454 Skills for Life: Golf (1 credit)**
An activity course that examines and applies the fundamentals and skills of golf. Selection and care of equipment, history and rules of the game, safety, etiquette, instruction and practice will be included. Liberal Education Goal Area 11.

**PHED 1474 Skills for Life: Bowling (1 credit)**
An activity course that examines and applies the fundamentals and skills of bowling. Students will demonstrate a knowledge of bowling history, scoring, handicapping and skills in bowling and etiquette. Liberal Education Goal Area 11.

**PHED 1490 Skills for Life: Badminton (1 credit)**
An activity course that examines and applies the fundamentals and skills of badminton. Students will demonstrate a knowledge of badminton history, scoring, and rules and regulations in singles and doubles play. Racket grips, strokes, footwork and tactics will be discussed and practiced. Liberal Education Goal Area 11.

**PHED 1500 Skills for Life: Ice Skating (1 credit)**
An activity course that examines and applies the fundamentals and skills of ice skating. Forward and backward stroking, crossovers and stops will be part of the evaluation. Liberal Education Goal Area 11.

**PHED 1520 Downhill Skiing (1 credit)**
An activity course that introduces the basic skills of beginning downhill skiing. Technique and skill development in traversing, turning, speed control and stopping will be included. The language of ski safety will also be discussed. (May not be offered every year.)

**PHED 1530 Snowboarding (1 credit)**
An activity course that introduces the basic skills of snowboarding, including toe turns, heel turns, carving, skating, stopping, and various forms of "riding." Includes an overview of snowboard equipment and how to select appropriate equipment. Liberal Education Goal Area 11.

**PHED 1540 Skills for Life: Curling (1 credit)**
An activity course that introduces the skills of curling, including techniques of throwing rocks and sweeping as well as strategies, rules, and scoring. (May not be offered every year) Liberal Education Goal Area 11.

**PHED 1554 Skills for Life: Cross Country Skiing (1 credit)**
An activity course that introduces the basic skills of cross country skiing including downhill turns and stopping. The student may choose to learn either skate skiing skills or the traditional skills of diagonal stride skiing. Some trail skiing will be included. Liberal Education Goal Area 11.

**PHED 1574 Skills for Life: Tennis (1 credit)**
An activity course that introduces the basic skills of tennis including techniques of basic grips, strokes and footwork. Entry level strategies for singles and doubles, history and rules of the game, etiquette, and scoring will be taught. Liberal Education Goal Area 11.

**PHED 1604 Skills for Life: Social Dance I (1 credit)**
This beginner-level activity course examines and applies the fundamentals and skills of contemporary, popular, and club style partner dances not typically included in a classic ballroom syllabus. Liberal Education Goal Area 11.

**PHED 1605 Social Dance II (1 credit)**
This intermediate- to advanced-level activity course examines and applies the fundamentals and skills of contemporary, popular, and club style partner dances not typically included in a classic ballroom syllabus. Prerequisite: PHED 1604 or consent of instructor. (Might not be offered every year.)

**PHED 1606 Skills for Life: American Style Ballroom Dance I (1 credit)**
An activity course that examines and applies the fundamentals and skills of classic ballroom dance. The steps taught are from the Dance Vision International Dance Association (DVIDA) American Bronze syllabus. Liberal Education Goal Area(s): 11.

**PHED 1607 Skills for Life: American Style Ballroom Dance II (1 credit)**
An activity course that examines and applies the fundamentals and skills of classic ballroom dance at an intermediate to advanced level. The steps taught are from the Dance Vision International Dance Association (DVIDA) American Bronze syllabus. Prerequisite: PHED 1606 or consent of instructor.

**PHED 1608 Skills for Life: International Style Ballroom Dance (1 credit)**
An activity course that examines and applies the fundamentals and skills of classic international style ballroom dance. The steps taught are from the Dance Vision International Dance Association (DVIDA) International Bronze syllabus. Liberal Education Goal Area 11.

**PHED 1764 Skills for Life: Basketball (1 credit)**
An activity course that examines and applies the fundamentals and skills of basketball. History and rules of the game, safety, drills, entry level strategies, conditioning, individual and group instruction and practice will be included. Liberal Education Goal Area 11.

**PHED 1784 Skills for Life: Volleyball (1 credit)**
An activity course that examines and applies the fundamentals and skills of volleyball. History and development, basic team systems, rules and strategies of the game will be included. Liberal Education Goal Area 11.

**PHED 1814 Skills for Life: Softball (1 credit)**
An activity course that examines and applies the fundamentals and skills of slow and fast pitch softball. History and rules of the game, terminology, score keeping, safety, field playing areas, drills, and entry level game strategies will be included. Liberal Education Goal Area 11.

**PHED 1840 Skills for Life: Racquetball (1 credit)**
An activity course that examines and applies the fundamentals and skills of racquetball. Components such as safety, serving and volleying will be emphasized. Singles, cutthroat, and doubles play will be introduced. Liberal Education Goal Area 11.

**PHED 1854 Skills for Life: Soccer (1 credit)**
An activity course that examines and applies the fundamentals and skills of soccer. The history of the game, rules and regulations and entry level drill and game strategies will be examined. Liberal Education Goal Area 11.

**PHED 1890 Lifetime Fitness (2 credits)**
This personal fitness class will allow students to develop their own aerobic and possibly strengthening program. They will receive some instruction in the development of fitness, use of equipment, etc., but the focus will be active participation in walking, jogging, rowing, stepping, etc. Liberal Education Goal Area 11.

**PHED 2100 Foundations of Physical Education, Exercise Science, and Sport (3 credits)**
A critical examination of the history, people, events, programs and philosophical positions that have led to the current status of physical education, fitness and sport in the United States. Students will be provided with up-to-date information about physical education and its diverse sub-fields as well as an introduction to career roles and preparation for professional service in all areas of physical education, kinesiology and exercise science.

**PHED 2109 Introduction to Sport Management (3 credits)**
This course will help and assist the prospective sport management major to discover specialized training personnel positions in the rapidly growing sport management field. Concentration will be on the duties and tasks performed, and the competencies needed for a career in sport management. Students will conduct a formal interview with a professional to further discuss the duties, tasks and competencies needed for that professional's field of work.

**PHED 2200 A Lifestyle for Wellness (2 credits)**
An examination of the social, emotional, mental, spiritual and physical dimensions of wellness. Students will examine their own lifestyles and learn how to make behavioral changes. Emphasis on self-esteem, nutritional habits, exercise habits and the importance of self-responsibility. Liberal Education Goal Area 9.

**PHED 2630 Lifeguard Training (3 credits)**
A lecture course with laboratory activity that examines and applies the fundamentals and skills of supervising swimming pool and water front activities. American Red Cross Certification may be earned for: Lifeguard Training and First Aid, CPR/AED for the Professional Rescuer, and Waterfront Lifeguarding. Good swimming skills are needed to succeed in this course.

**PHED 2640 Water Safety Instructor (3 credits)**
A lecture course with laboratory activity that constitutes all the aspects for the training of American Red Cross Water Safety Instructors. American Red Cross Water Safety Instructor Certification may be earned. Contact professor for further details. (May not be offered every year.)

**PHED 2925 People and the Environment: (3 credits)**
This class will explore the concepts of wilderness and recreation and how these relate to practices that protect or enhance the environment. May not be offered every year. Liberal Education Goal Area 10.

**PHED 2970 Internship: Sport Management Practicum (2 credits)**
When taken as Sport Management Practices, the following description applies: A study of various skills, roles, and functions of sport managers in managing people, the workplace, and day-to-day operations. Topics include definitions; management theories; functions of management; time management skills; effective decision making and problem solving; motivational theories, morale, and strategies; leadership theories; personal styles of leadership; and skills and competencies of sport leaders. Also includes practical experience in the organization and administration of sporting events or related areas. Prerequisite: PHED 2109 or consent of instructor.

**PHED 3090 Sport Physiology (2 credits)**
Emphasis on conditioning athletes including body composition, nutrition, cardiovascular fitness, flexibility, strength and other conditioning issues as related to sport training and participation. This course is designed primarily for non-PE majors who are interested in the coaching specialist program.

**PHED 3100 Motor Development (2 credits)**
An introduction to motor development and related motor theories. Application of these basic motor principles to the teaching of physical education and activity at all levels.

**PHED 3110 Motor Learning (2 credits)**
An introductory class in motor control and learning that gives an overview of the processes and mechanisms involved in generating, acquiring, and refining motor skills and of factors that foster or hinder the acquisition and refinement of these skills.

**PHED 3120 Psychology of Sport (2 credits)**
Study of the general relationship between individuals and sports behavior. Covers competitiveness, goal setting, peak performance, psychosocial influences, and rehabilitation. Also includes guides to show how teaching and learning may be applied to the coaching of sport and to bring out the relationship of meaningful learning to successful athletic coaching.

**PHED 3190 Athletic Training (2 credits)**
A lecture course with laboratory activity introducing the five practice domains of athletic training that include: prevention, recognition and evaluation, rehabilitation, reconditioning of athletic injuries, administration and professional development. Other topics include the theory and practice of athletic taping and risk management.

**PHED 3200 Introduction to Sport Biomechanics (3 credits)**
Introduction to biomechanical concepts and principles. Application of these principles to evaluating and improving performance in physical activities. Introduction to methods for qualitative movement analysis. Prerequisite: BIOL 2110 and PHED 3100 or consent of instructor.

**PHED 3219 Sport Economics (2 credits)**
This course provides the an understanding of theories and concepts related to economics of sport. Topics covered include economic growth of the sport industry, concepts of competitive strategy, economic impact principles, economic theory applied to various levels of sport, labor relations, stadium and arenas, venues and events, manufacturing and service industries, and impact of media. Prerequisite: ECON 2000 or consent of instructor.

**PHED 3300 Physiology of Exercise and Nutrition (3 credits)**
An examination of the effects of exercise on the systems of the body as they relate to health and performance. Nutritional concepts of weight control, ergogenic aids and fluid replacement will be discussed. Techniques for developing, prescribing, and assessing fitness components will be presented. Prerequisite: BIOL 2110 or consent of instructor.

**PHED 3449 Socio-Culture and Ethical Issues in Sport (3 credits)**
Study of the general relationship between individuals and sport, and sport and society. Discussions cover the ways sport is linked to other spheres of social life, the organization and behavior patterns of both individuals and groups within sport settings, and the cultural, structural, and situational factors affecting sport and sport experiences.

**PHED 3504 Teaching Rhythms and Dance (2 credits)**
Methods and materials for teaching various forms of rhythms and dance. Components include effective individual and group instruction; cultural and historical implications; dance steps, fundamentals, and a variety of traditional, creative and contemporary dance forms applicable to the K-12 setting. Prerequisite: entrance into the teacher education program or consent of instructor.

**PHED 3505 Teaching Elementary Physical Education (2 credits)**
An introduction to the developmental physical education program at the elementary school level. Components include learner characteristics, program content and organization and methods of teaching physical education. Prerequisite: PHED 3504 and entrance into the teacher education program or consent of instructor.

**PHED 3509 Sport Event Management (2 credits)**
This course will provide the student with an understanding of the responsibilities in managing sport facilities, administering, organizing and producing sporting events. The topics will range from personnel issues, facility protocol and procedures, and emergency plans. Prerequisite: BUAD 2280 or consent of instructor.

**PHED 3519 Sport Facility Management (2 credits)**
This course provides an understanding of sport facility management, facility planning, site and design development, systems and operations, and facility administration. Prerequisite: BUAD 2280 or consent of instructor.

**PHED 3600 Sport Marketing (3 credits)**
Study of fundamental marketing principles utilized in sport. Topics include definitions, marketing planning process, goals and objectives of marketing, marketing mix, segmentation, target markets, consumer behavior, sponsorship, endorsement, merchandising, fundraising, print media and mass communication. Prerequisite: BUAD 2280 or consent of instructor.

**PHED 3604 Teaching Team Sports (2 credits)**
Activities and teaching methods for team sport activities included in current physical education programs at all levels. Prerequisite: entrance into the teacher education program or consent of instructor.

**PHED 3605 Teaching Individual Sports (2 credits)**
Methods of teaching and the practice of the skills such sports as tennis, golf, pickleball, archery, badminton, bowling, and racquetball are the focus. Development of lesson plan, unit plans and application of teaching methods is emphasized. Prerequisite: entrance into the teacher education program or consent of instructor.

**PHED 3607 Teaching Fitness (2 credits)**
Methods of teaching and the practice in the development of physical fitness, including development of the health related fitness components of strength, cardiovascular endurance, muscular endurance, and flexibility with activities such as cross country skiing, exercise walking, orienteering, cycling, yoga, and weight training. Prerequisite: Entrance into the Teacher Education program or consent of instructor.

**PHED 3620 Techniques of Officiating Basketball (1 credit)**
A comprehensive study of the rules governing the game of basketball. Practical experience in simulated game situations will be provided. Information will be available for securing state high school league officiating status. May not be offered every year.

**PHED 3690 Coaching Principles (2 credits)**
The fundamental concepts and basic trends in the field of coaching. The history, present philosophies, psychology, pedagogy, physiology, sports medicine and objectives will be analyzed and examined. Topics that are universal to all coaching disciplines like scheduling, risk management, sport law, dealing with media, parents, peer pressure, and academic requirements will be covered.

**PHED 3710 Basketball Coaching (2 credits)**
The study of the game of basketball and the instructional techniques of individual and team play. Organizational procedures, practice preparation, scouting, rules and regulations, skill sequence and development, offensive, defensive and transitional systems, coaching philosophies and public relations will be examined.

**PHED 3720 Football Coaching (2 credits)**
A comprehensive study of developing a successful football team with an emphasis on teaching appropriate techniques and skills of the game. Practice and game organization, delegation of staff responsibilities and public relations will also be examined.

**PHED 3740 Ice Hockey Coaching (2 credits)**
In depth lectures and discussion concerning offensive and defensive skills and tactics, power play and penalty killing. Skilled positional play of goalies, defensemen, centers, and wings (forwards). Coaching techniques, motivational and leadership development, theory, rules, and regulations. Additional assignments involve planning and evaluating practices, games and athletic talent. Rules, budgets, and equipment repair will be discussed. (May not be offered every year.)

**PHED 3750 Soccer Coaching (2 credits)**
Organization and preparation for interscholastic competition. Emphasis will be on teaching specific soccer skills, individual player structures, practice preparation, and management. Strategies, conditioning and psychology of coaching issues will be examined. (May not be offered every year.)

**PHED 3770 Swimming Coaching (2 credits)**
Emphasis will be on developing knowledge and understanding of the applications of various laws of motion, leverage and flotation in the teaching of advanced swimming and diving skills. Emphasis on pool operation, swimming meet organization and swimming meet rules is included. Class participation includes classroom and laboratory experiences. (May not be offered every year.)

**PHED 3790 Track and Field Coaching (2 credits)**
Discussion and application of fundamental concepts required for effective teaching of the events in track and field. Event enrollment and management along with the aspects of practice and event coaching will be discussed.

**PHED 3800 Volleyball Coaching (2 credits)**
Provides information and training for teaching and coaching volleyball with an emphasis on the high school level. Class lecture and application activities on the court included. (May not be offered every year.)

**PHED 4160 Advanced Fitness Assessment & Prescription-Aerobic (3 credits)**
Theory and practice of physical fitness assessment for the purpose of prescribing aerobic exercise to adults, both healthy populations and those with special conditions, such as obesity, diabetes, osteoporosis, asthma, hypertension, and heart disease. Prepares students for American College of Sports Medicine (ACSM) Health Fitness Specialist exam as well as other personal trainer certifications. Prerequisite: PHED 3300 or consent of instructor.

**PHED 4170 Advanced Principles for Strength and Speed Training Exercise (3 credits)**
Theory and practice of strength and speed training with emphasis on technique analysis and instructional methods for strength training. Includes facility design and equipment purchasing and maintenance. Prepares students for National Strength and Conditioning Association Certified Strength and Conditioning Specialist (CSCS). Prerequisite: PHED 3300 or consent of instructor.

**PHED 4200 Methods of Teaching Elementary Physical Education to Classroom Teachers (1 credit)**
Organization and conduct of the physical education program in the elementary school.

**PHED 4209 Sport Finance (3 credits)**
This course will provide the student an understanding of theories and concepts used in financial resource management for the operation of programs in both public and private sectors of sport. Topics include ethical concerns, decision making, principles of budgeting, budget development, financial statements, spread sheet utilization, and sources of revenue for financing sport. Prerequisites: ACCT 1101 or consent of instructor.

**PHED 4211 D/APE History, Philosophy, Diagnosis and Assessment (3 credits)**
Introduction to physical education for students with disabilities, emphasizing the history and philosophy, legal mandates, resources, administration, curriculum, formal/informal assessment, evaluation, reporting results, IEP development, program planning, and entry/exit criteria. Prerequisites: BIOL 2110, PHED 2100, and PHED 3100.

**PHED 4212 Developmental Techniques for Adapted Physical Education (3 credits)**
Adaptation of physical activities for individuals with disabilities from birth to adulthood, emphasizing the application of current movement science research as outlined by the Individuals with Disabilities Act. Prerequisites: BIOL 2110, PHED 2100, and PHED 3100, or consent of instructor

**PHED 4217 D/APE Sport and Recreation for Individuals with Disabilities (3 credits)**
Through observation, laboratory experience, and discussion, students learn of community opportunities, resources, and advocacy groups as well as environmental adaptations and modifications related to sports and recreational activities for individuals with disabilities. Prerequisites: BIOL 2110, PHED 2100, PHED 3100, PHED 4211, or consent of instructor.

**PHED 4218 Adapted Aquatics (2 credits)**
A practical, hands-on course that applies information learned in prerequisite classes to the teaching of swimming skills to students with physical and/or mental disabilities. BSU students assess swimming skills, develop IEPs, review student progress, and teach swimming skills, using a variety of equipment, to students with a wide range of abilities. Prerequisites: PHED 2640 or consent of instructor.

**PHED 4309 Legal Aspects of Sport, Health, and Fitness (3 credits)**
An overview of the field of sports law, with applications to amateur sport, professional sport, recreation, health, healthcare, and fitness settings. Key areas of the law are identified, and applications within the sport, health and fitness industries are studied. Provides information about legal issues that may help professionals avoid litigation by foreseeing and preventing problems. Prerequisite: Junior or Senior status.

**PHED 4360 Adventure Programming (3 credits)**
Nuts and bolts of planning educational outdoor adventure experiences. Also reviews theory, literature, and program types.

**PHED 4400 Curriculum and Assessment in Physical Education (3 credits)**
Focus on the curricular process and it's evaluation to determine if the curriculum is meeting community and individual student needs. A second focus will be on assessment goals, objectives and outcomes of the cognitive, affective and motor aspects of physical education. Prerequisites: PHED 2100, PHED 3200, and PHED 3300 or consent of instructor.

**PHED 4409 Sport Business Management (3 credits)**
Study of the structures and processes of sport organizations. Topics include definitions; organizational behavior and structure; strategic planning process; organizational philosophy, goals, objectives, and mission statement; and human resource management. Also examines concepts of morality, theories of ethics, professional ethics, social responsibility, personal and management values, and how to develop a professional code of ethics. Prerequisite: PHED 2970 or consent of instructor.

**PHED 4500 Inclusive Physical Education (3 credits)**
An introduction to the study and practice of teaching physical education to children with disabilities in the public schools. Prerequisites: PHED 3100, PHED 3110, PHED 3200, PHED 3504, PHED 3505, PHED 3604, PHED 3605, PHED 3607, or consent of instructor.

**PHED 4920 DGS: (1 credit)**
When taken as Exercise Science Seminar the following description applies: Intended as a capstone course to prepare the Exercise Science major for employment, internship/job procurement, or continuing education in a graduate program. This course integrates discussion of strategies for professional development, as well as providing quality written composition on employment/graduate program goals and objectives. Prerequisite: Senior status or consent of instructor. When taken as Physical Education Seminar the following description applies: Intended as a capstone course to prepare the physical education major for employment, student teaching/job procurement, or continuing education in a graduate program. This course integrates discussion of strategies for professional development, as well as providing quality written composition on employment/graduate program goals and objectives. Prerequisite: Senior status or consent of instructor. When taken as Sport Management Seminar the following description applies: Intended as a capstone course to prepare the sport management major for employment; internship/job procurement, or continuing education in a graduate program. This course integrates discussion of strategies for professional development, as well as providing quality written composition on employment/graduate program goals and objectives. Prerequisite: Senior status or consent of instructor.

**PHED 4921 Varsity Sport: (1 credit)**
Varsity Sport - Participation credit, may be taken once per year of eligibility.

**PHED 4970 Internship (1-12 credits)**
When taken as practicum in athletic coaching, the following description applies: Application of the principles and practices in athletic coaching. A 30 hour practical coaching experience under the guidance and supervision of a licensed coach. This practicum must be conducted at the high school level. Appropriate forms must be filed with the department chairperson. Prerequisites: Completion of at least 70 percent of Physical Education Major or Coaching Specialist Program or consent of instructor. When taken as practicum in D/APE, the following description applies: Observation of and participation in physical education instruction for students pre-K--12 with disabilities. Includes seminar component for discussion of current issues, ideas, and problems in developmental/adapted physical education. Required: A minimum of 30 practicum hours per credit. Prerequisites: BIOL 2110, PHED 2100, PHED 3100, PHED 4500, PHED 4211. When taken as Internship in Exercise Science, the following description applies: This course is for the purpose of providing a supervised field internship experience in an exercise, fitness, and/or wellness-related setting, including hospitals, corporations, private fitness-facilities, and governmental agencies. Or, the internship may take the form of a special project or research on a topic relevant to exercise science. Prior approval must be obtained from the student's internship advisor. A journal, written paper, and/or oral presentation is to be presented following the learning experience. The student is expected to complete 30 hours per credit. Prerequisites: PHED 4160 and PHED 4170, or consent of instructor. When taken as Sport Management internship, the following description applies: Sport management majors are required to complete a field experience that is relevant to their career goals. The internship needs to provide an opportunity for the student to apply the different theories and concepts learned from class in a practical setting through: observation, planning, decision-making, committee work, leadership, operation management, individual projects, and group projects. Required: 400 hours for 12 credit internship to meet accreditation guidelines. Prerequisite: Consent of instructor. When taken as Practicum in Physical Education Teaching, the following description applies: A supervised experience in teaching K-10 students in physical education. Emphasis is on meeting the Minnesota Board of Teaching requirements for physical education majors. Required: A minimum of 30 practicum hours per credit. Prerequisite: PHED 3505 and PHED 3604.

## All-University Courses

The course numbers listed below, not always included in the semester class schedule, may be registered for by consent of the advisor, instructor, or department chair, or may be assigned by the department when warranted. Individual registration requires previous arrangement by the student and the completion of any required form or planning outline as well as any prerequisites.

1910, 2910, 3910, 4910 DIRECTED INDEPENDENT STUDY
1920, 2920, 3920, 4920 DIRECTED GROUP STUDY
1930, 2930, 3930, 4930 EXPERIMENTAL COURSE
1940, 2940, 3940, 4940 IN-SERVICE COURSE
1950, 2950, 3950, 4950 WORKSHOP, INSTITUTE, TOUR
1960, 2960, 3960, 4960 SPECIAL PURPOSE INSTRUCTION
1970, 2970, 3970, 4970 INTERNSHIP
1980, 2980, 3980, 4980 RESEARCH
1990, 2990, 3990, 4990 THESIS

# Physics

Physics is a fundamental science from which nearly all of modern engineering and technology has emerged, and its perspectives on theory and experimentation continue to influence profoundly the evolution of all sciences. It addresses all domains, from the submicroscopic worlds of atoms and quarks to the vast realms of space, from the esoteric to the mundane. It requires imagination and persistence from those who would participate.

The Department of Physics offers a flexible assortment of course work, laboratories, and guided research. Its laboratories are complemented by a variety of general and specialized apparatus; computers are employed in most aspects of experimentation and analysis, at all levels.

**Programs**

- Science Education, B.S. (Physics Specialty (Teacher Licensure))*major*
- Physics, B.A. *minor*
- Physics, B.S. *minor*

**Career Directions**

Government Laboratories
High School Teaching
Industry Laboratories
Post-Secondary Teaching
Also: Graduate and Professional Schools

**Preparation**

*Recommended High School Courses*
Advanced Mathematics
Physics
Chemistry
Computer Programming

## Science Education, B.S. *major*
## Physics Specialty (Teacher Licensure)

Required Credits: 83
Required GPA: 2.50

**Core Courses for Science Teaching in Grades 5-8**

COMPLETE THE FOLLOWING COURSES:

- BIOL 1211 Introductory Biology I (4 credits)
  *or* BIOL 1110 Human Biology (4 credits)
- BIOL 1212 Introductory Biology II (4 credits)
  *or* BIOL 1120 General Biology: Evolution And Ecology (3 credits)
- CHEM 2211 Principles of Chemistry I (4 credits)
  *or* CHEM 1111 General Chemistry I (4 credits)
- CHEM 2212 Principles of Chemistry II (4 credits)
  *or* CHEM 1112 General Chemistry II (4 credits)
- GEOL 1110 Physical Geology (4 credits)
- SCI 3100 Integrative Science for Teachers (4 credits)
- SCI 3450 Science Methods For Grades 5-8 (4 credits)
  *or* ED 3410 Middle School Science Methods (4 credits)

**REQUIRED PROFESSIONAL EDUCATION COURSES**

COMPLETE THE FOLLOWING COURSES:

- ED 3100 Introduction to the Foundations of Public School Education (3 credits)
- ED 3110 Educational Psychology (3 credits)
- ED 3140 Human Relations In Education (3 credits)
- ED 3350 Pedagogy: Planning for Instruction (3 credits)
- ED 3780 Adaptation and Management: Designing the Learning Environment (3 credits)
- ED 4737 Content Area Reading (3 credits)
- ED 4799 The Professional Teacher (1 credit)
- HLTH 3400 Health and Drugs in Society (2 credits)

Complete 12 credits of student teaching:

- ED 4830 Student Teaching - Secondary (1-12 credits)

**PHYSICS SPECIALTY**

COMPLETE THE FOLLOWING COURSES:

MATH 2471 is recommended (required for PHYS 2101)

- PHYS 2101 Physics I (5 credits)
  *or* PHYS 1101 General Physics I (4 credits)
- PHYS 2102 Physics II (5 credits)
  *or* PHYS 1102 General Physics II (4 credits)
- PHYS 2500 Electronics I (4 credits)
- PHYS 3600 Modern Physics (4 credits)
- PHYS 4580 Optics (4 credits)

COMPLETE THE FOLLOWING COURSE:

- PHYS 4980 Research (3 credits)

## Physics, B.A. *minor*

**PHYSICS MINOR, B.A. REQUIREMENTS**

MUST COMPLETE ALL AREAS WITH A TOTAL OF AT LEAST 33 SEMESTER CREDITS AND A 2.00 GPA

**I REQUIRED COURSES**

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I REQUIRED COURSES

COMPLETE THE FOLLOWING COURSES:

- MATH 2471 Calculus I (5 credits)
- MATH 2472 Calculus II (5 credits)
- PHYS 2101 Physics I (5 credits)
- PHYS 2102 Physics II (5 credits)

**II REQUIRED ELECTIVES**

SELECT 13 SEMESTER CREDITS FROM PHYSICS COURSES

## Physics, B.S. *minor*

**PHYSICS MINOR, B.S. REQUIREMENTS**

MUST COMPLETE ALL AREAS WITH A TOTAL OF AT LEAST 34 SEMESTER CREDITS AND A 2.00 GPA

**I REQUIRED COURSES**

I REQUIRED COURSES

COMPLETE THE FOLLOWING COURSES:

- MATH 2471 Calculus I (5 credits)
- MATH 2472 Calculus II (5 credits)
- PHYS 2101 Physics I (5 credits)
- PHYS 2102 Physics II (5 credits)
- PHYS 2500 Electronics I (4 credits)
- PHYS 3600 Modern Physics (4 credits)

**II REQUIRED ELECTIVES**

SELECT 6 SEMESTER CREDITS FROM PHYSICS COURSES

## Physics Courses

**PHYS 1101 General Physics I (4 credits)**
A survey of introductory physics, with laboratory. Topics include mechanics, vibrations, fluids, waves, heat, electricity, magnetism, dc circuits, optics. Elementary algebra and trigonometry are employed as needed. (Not for Physics or Engineering majors.) Liberal Education Goal Area 3 (LC).

**PHYS 1102 General Physics II (4 credits)**
Continuation of a survey of introductory physics, with laboratory. Topics include mechanics, vibrations, fluids, waves, heat, electricity, magnetism, DC circuits, optics. Elementary algebra and trigonometry are employed as needed. (Not for Physics or Engineering majors.) Liberal Education Goal Area 3 (LC).

**PHYS 1230 Introduction to Engineering (2 credits)**
Overview of career prospects and issues in engineering. Students research career paths in light of their own personal inventories and prepare plans for professional development. Employment statistics, qualifications, disciplinary tools, the design process, team building, professional associations, licensure, ethics. Visits to industrial engineering departments provide a first-hand look and networking/internship opportunities.

**PHYS 2101 Physics I (5 credits)**
A calculus-based introductory physics sequence, with laboratory. Topics include mechanics, vibrations, waves, fluids, thermodynamics, electricity, magnetism, DC and AC circuits, optics. Prerequisite/corequisite: MATH 2471. Liberal Education Goal Area 3 (LC).

**PHYS 2102 Physics II (5 credits)**
Continuation of a calculus-based introductory physics sequence, with laboratory. Topics include mechanics, vibrations, waves, fluids, thermodynamics, electricity, magnetism, DC and AC circuits, optics. Prerequisite/corequisite: MATH 2472. Liberal Education Goal Area 3 (LC).

**PHYS 2150 Acquisition and Control with G Programming (3 credits)**
In-depth introduction to laboratory electronics and computer data acquisition/process control using National Instruments' LabVIEW programming language. Measurement transducers, instrumentation, interface hardware and communications protocols, A/D and D/A conversion, signal conditioning, and data analysis covered in hands-on laboratory format. Prerequisite: One or more basic science courses.

**PHYS 2210 Statics and Strength of Materials (3 credits)**
Analysis of loads and moments borne by non-accelerating bodies and structures, considering distribution of forces and moments, material deformation, and prediction of material failure. Prerequisite: PHYS 2101.

**PHYS 2220 Dynamics (3 credits)**
Dynamics force and moment systems, including applications to systems of particles and rigid bodies, with an engineering emphasis. Prerequisite: PHYS 2101.

**PHYS 2500 Electronics I (4 credits)**
Use and analysis of digital ICs, with application to computer circuitry and interfacing. Intensive laboratory. Corequisite: PHYS 1101 or PHYS 2101, or consent of instructor.

**PHYS 2951 Study Travel Physics (1-6 credits)**
Study Travel course in Physics for Lib Ed Goal Area 3.

**PHYS 3150 Circuit Analysis (4 credits)**
A study of electrical systems and their responses to excitations, Two-port networks, and Bode Plots; Laplace and Fourier Transforms are employed as needed. Register for separate laboratory. For Physics majors - Prerequisites: PHYS 2102. For non-Physics majors - Prerequisites: PHYS 1102; Corequisite: MATH 2472.

**PHYS 3230 Fluid Mechanics (3 credits)**
The dynamics of fluid flow, emphasizing energy and momentum methods. Prerequisite: PHYS 2220. (Might not be offered every year.)

**PHYS 3250 Acoustics and Vibrations (3 credits)**
An introduction to vibrations, with applications to engineering and acoustics. Lecture and laboratory. Prerequisites: PHYS 2102, PHYS 2220 and MATH 2490 or PHYS 3400. (Might not be offered every year.)

**PHYS 3270 Systems and Controls (4 credits)**
Modeling and analysis of dynamic systems, with control applications. Register for separate laboratory. Prerequisites: PHYS 2220, PHYS 2530, and MATH 2490 or PHYS 3400, or consent of instructor.

**PHYS 3300 Thermodynamics and Heat Transfer (3 credits)**
Study of the theory and application of the laws of thermodynamics to control volumes, including an introduction to thermodynamic cycles for power generation, refrigeration, and heat pumps. Also, a study of the transfer of energy via heat, work, and mass, and of applications for the law of entropy. Prerequisites: MATH 2472 and PHYS 2102. (Might not be offered every year.)

**PHYS 3400 Math Methods for Engineering (3 credits)**
Introduction to ordinary and partial differential equations with emphasis on engineering applications; Laplace and Fourier transforms, series solutions, systems of ordinary differential equations, and phasor analysis. Prerequisites: MATH 2472, PHYS 1102 or PHYS 2102 (Might not be offered every year.)

**PHYS 3500 Electronics II (4 credits)**
Application of op-amps and other linear ICs and devices to instrumentation, measurement, interfacing, and control. Intensive laboratory. Prerequisite: PHYS 1102 or PHYS 2102 or consent of instructor.

**PHYS 3600 Modern Physics (4 credits)**
A first course in quantum systems. Topics include historical perspectives, classic experiments, an introduction to quantum mechanics, and applications in atomic and nuclear structure and spectroscopy. Lecture and Laboratory. Prerequisites: PHYS 2102, MATH 2472, or consent of instructor.

**PHYS 3720 Advanced Laboratory (1 credit)**
A laboratory designed to supplement various pre-engineering and other advanced courses that currently have no laboratory component. Content varies with term, may be subtitled, and may be repeated. Prerequisite: PHYS 2102.

**PHYS 4120 Engineering Simulation and Design (2 credits)**
Engineering design and analysis with commercial and customized software. A project is required. Prerequisite: PHYS 2102. (Might not be offered every year.)

**PHYS 4310 Mathematical Methods in Applied Physics (3 credits)**
Advanced topics in mathematical physics and engineering, including vector calculus, partial differential equations, Sturm-Liouville theory of orthogonal functions, and eigenfunction expansions. Prerequisite: PHYS 2102, and MATH 2490 or PHYS 3400. (Might not be offered every year.)

**PHYS 4540 Electromagnetic Fields and Waves (4 credits)**
A study of applied electromagnetics. Topics include Maxwell's Equations boundary value problems, static fields, media, waves, waveguides, and antennas. Prerequisites: PHYS 2102, MATH 2490 (or PHYS 3400), PHYS 3600, and PHYS 4310 (or consent of instructor). (Might not be offered every year.)

**PHYS 4580 Optics (4 credits)**
Geometrical and Physical Optics, including Fraunhofer and Fresnel diffraction, coherence, and holography. Fourier analysis is employed as needed. Lecture and laboratory. Prerequisites: PHYS 2102, and MATH 2490 or PHYS 3400. (Might not be offered every year.)

**PHYS 4610 Quantum Mechanics (3 credits)**
Development and formulation of quantum mechanics, with selected applications in spectroscopy, atomic/nuclear structure, lasers, solid state. Prerequisites: PHYS 2102, PHYS 3600, MATH 2490 or PHYS 3400, and PHYS 4310. (Might not be offered every year.)

**PHYS 4660 Solid State Physics (3 credits)**
Fundamentals of condensed matter physics, emphasizing crystalline solids. Includes transport mechanisms, band theory, semiconductors, lasers. Prerequisites: PHYS 2102, MATH 2472, and PHYS 3600. PHYS 4610 is strongly recommended. (Might not be offered every year.)

**PHYS 4680 Theoretical Physics (4 credits)**
Advanced topics in electromagnetism, classical mechanics, and quantum mechanics. Prerequisites: PHYS 2220, PHYS 4310, PHYS 4540, and PHYS 4610. (Might not be offered every year.)

**PHYS 4720 Applied Controls (2 credits)**
Calculus-based theory of feedback control systems with applications to industrial and experimental research automation systems. Includes laboratory component. Prerequisite: PHYS 1102 or PHYS 2102, and MATH 2490 or PHYS 3400.

**PHYS 4751 Engineering Design Project I (2 credits)**
Advanced computer-based measurement and control techniques, transducers, interfacing, signal conditioning. Prerequisites: PHYS 2102, senior status or consent of instructor.

**PHYS 4752 Engineering Design Project II (2 credits)**
Continuation of advanced computer-based measurement and control techniques, transducers, interfacing, signal conditioning. Prerequisites: PHYS 2102, senior status or consent of instructor.

**PHYS 4980 Research (3 credits)**
Research carried out by the student that is based on appropriate methodology and scholarship.

## All-University Courses

The course numbers listed below, not always included in the semester class schedule, may be registered for by consent of the advisor, instructor, or department chair, or may be assigned by the department when warranted. Individual registration requires previous arrangement by the student and the completion of any required form or planning outline as well as any prerequisites.

1910, 2910, 3910, 4910 DIRECTED INDEPENDENT STUDY
1920, 2920, 3920, 4920 DIRECTED GROUP STUDY
1930, 2930, 3930, 4930 EXPERIMENTAL COURSE
1940, 2940, 3940, 4940 IN-SERVICE COURSE
1950, 2950, 3950, 4950 WORKSHOP, INSTITUTE, TOUR
1960, 2960, 3960, 4960 SPECIAL PURPOSE INSTRUCTION
1970, 2970, 3970, 4970 INTERNSHIP
1980, 2980, 3980, 4980 RESEARCH
1990, 2990, 3990, 4990 THESIS

# Political Science

Political science is the study of political systems and how they function. It has its origins in the fourth century B.C., when Aristotle set out to classify governments. Today it encompasses four major focus areas: International Politics, including the behavior of countries, trade regimes, and theories of war; American Politics, including political parties, interest groups, and legislative, judicial, and executive powers; Comparative Politics, including the nature of democracy and comparison of parliamentary and other political systems; and Political Theory, including philosophical considerations such as what constitutes a good society.

Students of political science gain an understanding of the political nature of the contemporary world, from simple acts such as choosing products as consumers to the complexity of global politics in the information age. As governments and the private sectors of society become more intermingled, political scientists become more valued for their understanding of how both systems work and for their reasoning and analytical skills. Majors in political science are prepared for entry level positions in a variety of fields and for graduate study. Advanced degrees in political science offer the applied skills often necessary for professional advancement.

Note: Good writing and computer skills are essential to political scientists. Students are encouraged to develop their writing skills by taking ENGL 2152 Argument and Exposition, and their computer skills by taking CS 1107 Introduction to Computers.

**Programs**

- Political Science, B.A. *major*
- Social Studies, B.A. (Political Science Emphasis)*major*
- Applied Public Policy *minor*
- Political Science *minor*

**Career Directions**

Business
Government
Interest Groups
International Organizations
Journalism
Law
Also: Graduate Study

**Preparation**

*Recommended High School Courses*

English

History

Social Studies

Speech

Computers

Languages

*Recommended Activities*

Reading Newspapers

Attention to News Events

## Political Science, B.A. *major*

Required Credits: 42
Required GPA: 2.25

**I REQUIRED CORE COURSES**

COMPLETE THE FOLLOWING COURSES:

- PHIL 3380 Political Philosophy (3 credits)
  *or* POL 1100 Understanding Politics (3 credits)
- POL 1200 Introduction to American Politics (3 credits)
- POL 1300 Introduction to International Relations (3 credits)
- POL 1400 Introduction to Comparative Politics (3 credits)
- POL 3240 Political Analysis (3 credits)
- POL 3400 Political Theory (3 credits)
- POL 4100 Political Inquiry (3 credits)
- POL 4500 Thesis and Career Preparation (3 credits)

**A. GENERAL**

SELECT 12 SEMESTER CREDITS OF GUIDED ELECTIVES FROM POLITICAL SCIENCE COURSES NUMBERED ABOVE 3000 WITH CONSENT OF ADVISOR. MAY INCLUDE INTERNSHIP UP TO 4 CREDITS:

SELECT 6 SEMESTER CREDITS OF GUIDED ELECTIVES FROM APPROPRIATE COURSES NUMBERED ABOVE 3000 WITH CONSENT
OF ADVISOR. MAY INCLUDE INTERNSHIP UP TO 4 SEMESTER CREDITS.

Note: A total of up to 8 credits of internship may be
taken.

**B. PRE-LAW EMPHASIS**

COMPLETE THE FOLLOWING COURSE:

- POL 4200 Constitutional Law (3 credits)

SELECT 15 SEMESTER CREDITS OF GUIDED ELECTIVES FROM APPROPRIATE COURSES NUMBERED ABOVE 3000 WITH CONSENT OF ADVISOR.

**SUGGESTED SEMESTER SCHEDULE FOR POLITICAL SCIENCE MAJOR, B.A.**

The following is a list of required Political Science Major, B.A. courses arranged by year. This schedule is intended to help students plan their courses in an orderly fashion; however, these are only suggestions and this schedule is flexible.

Freshman

- POL 1200 Introduction to American Politics (3 credits)
- POL 1300 Introduction to International Relations (3 credits)
- Liberal Education requirements

Sophomore

- POL 1400 Introduction to Comparative Politics (3 credits)
- PHIL 3380 Political Philosophy (3 credits)
  *or* POL 1100 Understanding Politics (3 credits)
- Liberal Education requirements
- Electives in Political Science

Junior

- POL 3240 Political Analysis (3 credits)
- SOC 3001 Social Statistics (3 credits)
- Liberal Education Requirements
- Electives in Political Science

Senior

- POL 4500 Thesis and Career Preparation (3 credits)
- Electives in Political Science

## Social Studies, B.A. *major*
## Political Science Emphasis

Required Credits: 48
Required GPA: 2.50

**I REQUIRED CORE CURRICULUM**

CAPSTONE COURSE
COMPLETE THE FOLLOWING COURSE:

- POL 4500 Thesis and Career Preparation (3 credits)

ECONOMICS COURSES
SELECT 1 OF THE FOLLOWING COURSES:

- ECON 2000 Markets and Resource Allocation (3 credits)
- ECON 2100 Macroeconomics and the Business Cycle (3 credits)

GEOGRAPHY COURSES
SELECT 1 OF THE FOLLOWING COURSES

- GEOG 2100 Introduction to Physical Geography (3 credits)
- GEOG 2200 Introduction to Human Geography (3 credits)

GEOGRAPHY COURSES
SELECT 1 OF THE FOLLOWING COURSES:

- GEOG 3410 Geography of North America (3 credits)
- GEOG 3800 Regional Geography (1-3 credits)
- GEOG 3810 Geography of Europe (3 credits)
- GEOG 3820 Geography of East, South, and Southeast Asia (3 credits)
- GEOG 3840 Geography of Africa (3 credits)

UPPER DIVISION WORLD HISTORY
SELECT 1 OF THE FOLLOWING COURSES

- HST 2218 Medieval Europe (3 credits)
- HST 2228 Renaissance and Reformation Europe (3 credits)
- HST 2580 Russia (3 credits)
- HST 2600 Topics in History (3 credits)
- HST 2660 Women and History (3 credits)
- HST 2700 The History of World Religions (3 credits)
- HST 2800 Reacting to the Past (3 credits)
- HST 3159 The World at War, 1931-1945 (3 credits)
- HST 3208 Greece and Rome, 1500 BCE-500 CE (3 credits)
- HST 3258 The Roman Civil Law Tradition (3 credits)
- HST 3268 The Roman Revolution, 200 BCE-CE 14 (3 credits)
- HST 3277 Readings and Research in European History (3 credits)
- HST 3409 Colonialism and Modernization in the Non-Western World (3 credits)
- HST 3419 East Asia (3 credits)
- HST 3429 South and Southeast Asia (3 credits)
- HST 3449 Middle East (3 credits)
- HST 3459 Latin America (3 credits)

UPPER DIVISION U.S. HISTORY
SELECT 1 OF THE FOLLOWING COURSES

- HST 2600 Topics in History (3 credits)
- HST 2610 Minnesota History (3 credits)
- HST 2640 United States Diplomatic History (3 credits)
- HST 2667 Men and Women: Gender in America (3 credits)
- HST 2800 Reacting to the Past (3 credits)
- HST 3117 American Revolutionary Era, 1763-1800 (3 credits)
- HST 3128 Testing Democracy: Reform in Nineteenth-Century America (3 credits)
- HST 3137 Civil War and Reconstruction, 1844-1877 (3 credits)
- HST 3159 The World at War, 1931-1945 (3 credits)
- HST 3187 American West (3 credits)

POLITICAL SCIENCE COURSES
SELECT 1 OF THE FOLLOWING COURSES

- POL 1200 Introduction to American Politics (3 credits)
- POL 1300 Introduction to International Relations (3 credits)
- POL 1400 Introduction to Comparative Politics (3 credits)

POLITICAL SCIENCE COURSES
SELECT 1 OF THE FOLLOWING COURSES

- POL 3100 American Foreign Policy (3 credits)
- POL 3130 Asian Political Development (3 credits)
- POL 3150 Topics in Political Science (1-3 credits)
- POL 3160 Comparative European Politics (3 credits)
- POL 3170 International Relations (3 credits)
- POL 3180 International Law and Organization (3 credits)
- POL 3190 International Political Economy (3 credits)
- POL 3200 Minnesota Politics (3 credits)
- POL 3210 Public Administration (3 credits)
- POL 3230 Environmental Politics (3 credits)
- POL 3410 Legislative and Executive Relations (3 credits)
- POL 3420 Campaigns and Elections (3 credits)
- POL 4200 Constitutional Law (3 credits)

SOCIOLOGY COURSES
COMPLETE THE FOLLOWING COURSES:

- SOC 2200 Social Movements and Change (3 credits)
- SOC 3010 Social Theory (3 credits)

**II REQUIRED FIELD OF EMPHASIS**

SELECT 18 SEMESTER CREDITS OF ELECTIVES FROM POLITICAL SCIENCE.

**SUGGESTED SEMESTER SCHEDULE FOR SOCIAL STUDIES MAJOR, B.A.**

The following is suggested for logical and effective scheduling but can be interpreted as flexible for meeting requirements and a student's particular needs. Students should meet with the Social Studies coordinator and advisor as early as possible in their planning.

Freshman - Sophomore

- Geography and History constitute the "matrix" of Social Studies and students should complete required core courses in these subjects first.
- Complete Liberal Education requirements

Junior-Senior

- Complete remaining core course requirements and courses for area of emphasis.
- Complete Professional Education courses
- Students pursuing the B.S. Teacher Licensure in Social Studies should complete GEOG 3460 no sooner than their junior year, preferably just prior to their student teaching.

## Applied Public Policy *minor*

Required Credits: 32
Required GPA: 2.00

**I REQUIRED CORE COURSES**

COMPLETE THE FOLLOWING COURSES:

- ECON 2000 Markets and Resource Allocation (3 credits)
- ECON 3010 Public Economics (3 credits)
- ECON 3230 Benefit/Cost Analysis (3 credits)
- GEOG 2400 Introduction to Planning (3 credits)
- POL 1200 Introduction to American Politics (3 credits)
- POL 3200 Minnesota Politics (3 credits)
- POL 3210 Public Administration (3 credits)

**II REQUIRED OPTION**

SELECT 12 SEMESTER CREDITS FROM ONE OF THE FOLLOWING OPTIONS:

*A.ENVR POLICY:*

- GEOG 3560 Metropolitan Land Use Planning (3 credits)
- POL 3230 Environmental Politics (3 credits)
- SOC 3050 Environmental Sociology (3 credits)
- ECON 3040 Environmental Economics (3 credits)
  *or* ENVR 3040 Environmental Economics (3 credits)

*B. PLANNING:*

- GEOG 2100 Introduction to Physical Geography (3 credits)
- GEOG 3570 Public Lands Planning (3 credits)
- GEOG 3560 Metropolitan Land Use Planning (3 credits)
- GEOG 3580 Regional Development Planning (3 credits)

*C. AM POL/ECON:*

- ECON 2100 Macroeconomics and the Business Cycle (3 credits)
- ECON 3070 Labor Economics (3 credits)
- ECON 3200 Economics of the Financial Sector (3 credits)
- POL 3410 Legislative and Executive Relations (3 credits)
- POL 3420 Campaigns and Elections (3 credits)

*D.INT/POL/ECON:*

- ECON 2100 Macroeconomics and the Business Cycle (3 credits)
- ECON 3400 International Trade and Finance (3 credits)
- POL 1300 Introduction to International Relations (3 credits)
- POL 3170 International Relations (3 credits)
- POL 3180 International Law and Organization (3 credits)
- POL 3190 International Political Economy (3 credits)

E. PUBLIC POLICY SERVICE LEARNING
COMPLETE THE FOLLOWING COURSE. (1 credit per semester; must be taken twice, but no more than 4 credits total)

- POL 3910 Directed Independent Study: Student Leadership (1 credit)

COMPLETE THE FOLLOWING COURSE:

- POL 3970 Internship (3 credits)

## Political Science *minor*

Multiple Credentials
Any additional major, minor or certificate in a degree must have at least 6 credits of course work not used to meet the requirements of another major, minor or certificate in the degree.

Required Credits: 24
Required GPA: 2.00

**REQUIRED COURSES**

COMPLETE THE FOLLOWING COURSES:

- PHIL 3380 Political Philosophy (3 credits)
  *or* POL 1100 Understanding Politics (3 credits)
- POL 1200 Introduction to American Politics (3 credits)
- POL 1300 Introduction to International Relations (3 credits)
- POL 1400 Introduction to Comparative Politics (3 credits)

**GUIDED ELECTIVES**

SELECT 12 SEMESTER CREDITS FROM POLITICAL SCIENCE COURSES NUMBERED ABOVE 3000 WITH CONSENT OF ADVISOR.
MAY INCLUDE INTERNSHIP UP TO 4 CREDITS.

## Political Science Courses

**POL 1100 Understanding Politics (3 credits)**
An introduction to the basic ideologies, concepts, processes and institutions of modern government and politics. Liberal Education Goal Areas 5 & 9.

**POL 1200 Introduction to American Politics (3 credits)**
An introductory survey to the institutions and actors, such as the media, interest groups, political parties, congress, and presidency of contemporary American government and politics. Liberal Education Goal Area 5 & 9.

**POL 1300 Introduction to International Relations (3 credits)**
Surveys various theories explaining the behavior of nation-states, the causes of war and peace as well as the role of multinational corporations and international organizations in international politics. Liberal Education Goal Areas 8 & 9.

**POL 1400 Introduction to Comparative Politics (3 credits)**
A comparative analysis of political systems and their functions in the context of unique cultures and histories. Liberal Education Goal Area 8.

**POL 1500 Mock Trial (1 credit)**
Through engaging in trial simulations in competition with teams from other institutions, students develop critical thinking and public speaking skills, as well as knowledge of legal practices and procedures.

**POL 2925 People and the Environment: Political Science Perspective (3 credits)**
An introduction to political processes and institutions involved in making environmental policy. Might not be offered every year. Liberal Education Goal Area 10.

**POL 2953 Study-Travel, History and the Social and Behaviorial Sciences (1-6 credits)**
Study Travel course in Political Science for Lib Ed Goal Area 5.

**POL 3100 American Foreign Policy (3 credits)**
Traces the development of American foreign policy: its objectives, limitations, domestic and international factors influencing foreign policy. Prerequisite: POL 1300. (Might not be offered every year.)

**POL 3130 Asian Political Development (3 credits)**
Course investigates the unique political and economic challenges facing the countries of Asia and South Asia. Prerequisite: POL 1400. (Might not be offered every year.)

**POL 3140 Canadian Politics (3 credits)**
Explanation of Canada's history, political and economic systems, and regional variations within the nation-state. Special attention to political parties, ideologies, policy processes, and outcomes. (Might not be offered every year.)

**POL 3150 Topics in Political Science (1-3 credits)**
Course explores underlying political dimensions of topical issues. (Might not be offered every year.)

**POL 3160 Comparative European Politics (3 credits)**
Course includes an analysis of political structures and processes in Europe. The mechanisms of parliamentary governments, political parties, interest groups and ideologies are included. Prerequisite: POL 1400. (Might not be offered every year.)

**POL 3170 International Relations (3 credits)**
The study of conflict and cooperation in international relations, the foreign policies of the great powers, international organizations, and the United Nations. Prerequisite: POL 1300. (Might not be offered every year.)

**POL 3180 International Law and Organization (3 credits)**
Explores the role of international organizations such as the United Nations, economic alliances, international law, and regional consolidation in international politics. Prerequisite: POL 1300. (Might not be offered every year.)

**POL 3190 International Political Economy (3 credits)**
Analyzes how economic policy decisions are made within and between countries and the effect those decisions have on affected interests in domestic and international politics. Prerequisite: POL 1300. (Might not be offered every year.)

**POL 3200 Minnesota Politics (3 credits)**
Using Minnesota politics as a central focus, the role of and function of state and local governments in the context of American federalism is examined. Prerequisite: POL 1200. (Might not be offered every year.)

**POL 3210 Public Administration (3 credits)**
An introduction to the field of public administration. Emphasis is on the political dimensions of management in the public sector. Prerequisite: POL 1200. (Might not be offered every year.)

**POL 3230 Environmental Politics (3 credits)**
Surveys the dynamics of the policy process that produce our environmental policies. An analysis of actors, institutions, and organizations that shape U.S. environmental law and policy. Prerequisite: POL 1200 or consent of instructor. (Might not be offered every year.)

**POL 3240 Political Analysis (3 credits)**
Examines the application of political science research methodology to current questions of politics and public policy. Prerequisite: Completion of Core Curriculum mathematics requirement (Goal Area 4) or consent of instructor.

**POL 3400 Political Theory (3 credits)**
This course surveys the development of western political thought. Included is an examination of some of the ideas and values associated with major social and political movements in Europe and the United States. Topics will vary and may include liberalism, conservatism, populism, democracy, communism, nationalism, fascism, environmentalism, realism, and feminism. POL 1100 or consent of instructor. (Might not be offered every year.)

**POL 3410 Legislative and Executive Relations (3 credits)**
Explores the legislative process by analyzing the motives and evolving legislative styles of legislators in relation to the evolution and powers of the modern presidency and executive establishment. Prerequisite: POL 1200. (Might not be offered every year.)

**POL 3420 Campaigns and Elections (3 credits)**
Includes analysis of the congressional and presidential electoral process, including the role of political parties, interest groups, and the media. Prerequisite: POL 1200. (Might not be offered every year.)

**POL 3910 Directed Independent Study: Student Leadership (1 credit)**
Directed Independent Study

**POL 3970 Internship (3 credits)**
Graded Satisfactory/Unsatisfactory only. Student internships may be either full-time or part-time in a public or private agency appropriate to the degree objective. Internships consist of closely supervised periods of service that are arranged in advance of the course registration. Students should consult their advisor concerning prerequisites.

**POL 4100 Political Inquiry (3 credits)**
Students will learn the theory and practice of quantitative political analysis through the completion of original research projects. Prerequisites: POL 3240.

**POL 4200 Constitutional Law (3 credits)**
An examination of legal interpretations of the constitution regarding the separation of powers and the Bill of Rights. Prerequisite: POL 1200. (Might not be offered every year.)

**POL 4500 Thesis and Career Preparation (3 credits)**
This is a senior year capstone course. In a seminar format, students discuss progress on their individual research projects and develop career plans and skills. Prerequisite: POL 4100 or consent of instructor.

## All-University Courses

The course numbers listed below, not always included in the semester class schedule, may be registered for by consent of the advisor, instructor, or department chair, or may be assigned by the department when warranted. Individual registration requires previous arrangement by the student and the completion of any required form or planning outline as well as any prerequisites.

1910, 2910, 3910, 4910 DIRECTED INDEPENDENT STUDY
1920, 2920, 3920, 4920 DIRECTED GROUP STUDY
1930, 2930, 3930, 4930 EXPERIMENTAL COURSE
1940, 2940, 3940, 4940 IN-SERVICE COURSE
1950, 2950, 3950, 4950 WORKSHOP, INSTITUTE, TOUR
1960, 2960, 3960, 4960 SPECIAL PURPOSE INSTRUCTION
1970, 2970, 3970, 4970 INTERNSHIP
1980, 2980, 3980, 4980 RESEARCH
1990, 2990, 3990, 4990 THESIS

# Pre-Professional Study

Pre-professional programs are specifically designed programs that vary in length from one to four years and prepare students for entrance into professional schools. Bemidji State University offers fourteen pre-professional programs.

While some students choose to complete pre-professional programs that require one or two years of study, students preparing for entrance to schools of medicine, dentistry, law, pharmacy, optometry, veterinary medicine, or other fields are advised to earn a baccalaureate degree in an appropriate field of study.

Pre-professional programs are very demanding, and entrance into professional schools is dependent upon the preparation and academic competence achieved at the pre-professional level. This academic preparation must be planned to meet requirements defined by each professional school. Academic advisors assist students in selecting courses and in understanding entrance criteria. For these reasons, it is particularly important that pre-professional students work closely with their pre-professional advisor. Delay in meeting with the pre-professional advisor could result in delayed entrance in professional school.

**Programs**

- Pre-Chiropractic
- Pre-Dentistry
- Pre-Engineering
- Pre-Law
- Pre-Medicine
- Pre-Mortuary Science
- Pre-Occupational Therapy
- Pre-Optometry
- Pre-Osteopathic Medicine
- Pre-Pharmacy
- Pre-Physical Therapy
- Pre-Physician Assistant
- Pre-Podiatric Medicine
- Pre-Veterinary Medicine

## Pre-Chiropractic

**Advisors: Dr. Julie Larson, Dr. Kerry Openshaw, Dr. Mark Wallert**

1. The pre-chiropractic student should fulfill all requirements for a Bachelor of Science degree at Bemidji State University. The student should declare an academic major. Pre-chiropractic is not an academic major. Although the major may be in any field of study, experience indicates that a Biology major will provide the student with an advantage while attending chiropractic school.

2. Early entrance into chiropractic school is possible for some students. Most students, however, enter chiropractic school after completing a baccalaureate degree. Many states now require that chiropractors must have a baccalaureate degree in addition to their chiropractic degree prior to being licensed as a chiropractor. In addition, some chiropractic schools may require more courses than listed below. It is the responsibility of the pre-chiropractic student to become aware of these additional requirements and to plan his or her pre-chiropractic curriculum accordingly.

3. The pre-chiropractic student should work closely with the pre-chiropractic advisor so all course requirements are fulfilled prior to entrance into chiropractic school. Delay in meeting with the pre-chiropractic advisor will likely result in delayed entrance into chiropractic school.

4. In addition to a strong background in behavioral sciences, English, and humanities, the following courses are specifically required for entrance into most chiropractic schools:

   BIOL 1211, 1212, 2360, 3250, 3260, 3710
   CHEM 2211, 2212, 3311, 3312, 3371, 3372
   ENGL 1151, 2152
   MATH 1470
   PHYS 1101, 1102 (**or**) 2101, 2102

5. The following courses are strongly recommended to be included in the student's pre-chiropractic curriculum:

   ACCT 1100
   BIOL 1300, 3580, 3590, 3920, 4270
   CHEM 4411, 4412, 4471
   PSY 1100

SOC 1104
SPCM 1100

6. A suggested pre-chiropractic academic schedule is listed below; numbers in parentheses are semester credits:

**Freshman**

BIOL 1211, 1212; F, S; (4,4)
CHEM 2211, 2212; F, S; (4,4)
ENGL 1151, 2152; F, S; (3,3)
MATH 1470; F or S; (5)
Electives: Consult your Pre-Chiropractic Advisor

**Sophomore**

BIOL 1300; F or S; (2)
BIOL 2360, 3710; F, S; (4,4)
BIOL 3920; F; (1)
CHEM 3311, 3312; F, S; (3,3)
CHEM 3371, 3372; F, S; (1,1)
PHYS: Consult your Pre-Chiropractic Advisor F, S; (5,5)
Electives: Consult your Pre-Chiropractic Advisor

**Junior**

BIOL 3250, 3260; F, S; (4,4)
Electives: Consult your Pre-Chiropractic Advisor

**Senior**

Consult your Pre-Chiropractic Advisor

## Pre-Dentistry

**Advisors: Dr. Julie Larson, Dr. Ken Traxler**

1. The pre-dental student should fulfill all requirements for a Bachelor of Science degree at Bemidji State University. The student should declare an academic major. Pre-Dentistry is not an academic major. The major may be in any field of study. The Dental Admission Test (DAT) is taken in the spring of the junior year.

2. Early entrance into dental school is possible for some students. Most students, however, enter dental school after completing a baccalaureate degree. In addition, some dental schools may require more courses than listed below. It is the responsibility of the pre-dental student to become aware of these additional requirements and to plan his or her pre-dental curriculum accordingly.

3. The pre-dental student should work closely with the pre-dentistry advisor so all course requirements are fulfilled prior to entrance into dental school. Delay in meeting with a pre-dental advisor will likely result in delayed entrance into dental school.

4. In addition to a strong background in behavioral sciences, English, and humanities, the following courses are specifically required for entrance into most dental schools:

   BIOL 1211, 1212
   CHEM 2211, 2212, 3311, 3312, 3371, 3372
   ENGL 1151, 2152
   MATH 1470
   PHYS 1101, 1102 (**or**) 2101, 2102

5. The following courses are recommended to be included in the student's pre-dental curriculum:

   BIOL 2110 or 2310, 3590, 3710, 4270
   CHEM 4411, 4412, 4471

6. A suggested pre-dental academic schedule is listed below; numbers in parentheses are semester credits:

**Freshman**

BIOL 1211, 1212; F, S; (4,4)
CHEM 2211, 2212; F, S; (4,4)
ENGL 1151, 2152; F, S; (3,3)
MATH 1470; F or S; (5)
Electives: Consult your Pre-Dentistry Advisor

**Sophomore**

BIOL 2110 or 2310, 3710; F, S; (5 or 4,4)
CHEM 3311, 3312; F, S; (3,3)
CHEM 3371, 3372; F, S; (1,1)
PHYS 1101, 1102 **or** 2101, 2102; F, S; (4,4 or 5,5)
Electives: Consult your Pre-Dentistry Advisor

**Junior**

Electives: Consult your Pre-Dentistry Advisor

**Senior**

Consult your Pre-Dentistry Advisor

## Pre-Engineering

**Advisors: Dr. David Bahr**

The pre-engineering program is a course of study that provides the lower division foundation course work in engineering. Students in this program can transfer to an engineering school for their junior and senior years. Course work taken at Bemidji State can be applied to standard engineering degree programs at the University of Minnesota and at other nearby institutions. The lower division curriculum is rather universal, but the requirements will vary somewhat with the specialty field and with the choice of professional school. Two curricular options are shown below, and other options are available. Only the freshman year is presented; subsequent years must be scheduled in consultation with an advisor.

**Note:** IT 1460 is also required by many programs.

**Option I-Freshman Year (2 year curriculum)**

ENGL 1151, 2152
CHEM 2211, 2212
CS 2321 or equivalent; consult with advisor.
MATH 2471
PHYS 2101, 2102
Liberal Education Requirements

**Option II-Freshman Year (2-3 year curriculum)**

This option allows for a review of algebra and trigonometry prior to enrollment in the calculus sequence. Since registration in the Physics sequence is delayed in this option, an additional year may be required for completion. Please note that review courses in mathematics will not transfer to an engineering school.

CHEM 2211, 2212
CS 2321 or equivalent; consult with advisor.
ENGL 1151, 2152
MATH 1470, 2471
PHYS 2101
Liberal Education Requirements

## Pre-Law

**Advisors: Dr. Don Bradel, Dr. Patrick Donnay, Ms. Carol Nielsen**

A number of career opportunities are available for those interested in careers in the legal field. Lawyers are employed in private practice, corporations, non-profit organizations, and by the government. Legal assistants are in growing demand. Students should develop communication and analytical skills as well as an understanding of human values and institutions. Law school admissions are dependent upon grade point average, performance on the LSAT exam and other criteria. A variety of undergraduate programs are appropriate for law school, though the department of political science has an interdisciplinary pre-law emphasis in its major.

## Pre-Medicine

**Advisors: Dr. Holly LaFerriere, Dr. Julie Larson, Dr. Kerry Openshaw, Dr. Ken Traxler, Dr. Mark Wallert**

1. The pre-medical student should fulfill all requirements for a Bachelor of Science degree at Bemidji State University. The student should declare an academic major. Pre-Medicine is not an academic major. Although the major may be in any field of study, experience indicates that a Biology or Chemistry major will provide the student with an advantage on the Medical College Admission Test (MCAT).

2. Early entrance into medical school is possible for some students. Most students, however, enter medical school after completing a baccalaureate degree. In addition, some medical schools may require more courses than listed below. It is the responsibility of the pre-medical student to become aware of these additional requirements and to plan his or her pre-medical curriculum accordingly.

3. Admission to medical school is highly competitive; typically, only about 10% of applicants are accepted. Admitted students normally have a grade point average of 3.5 or higher and MCAT scores of 9 or higher in each section of the exam. In planning your program it is important to consider alternatives, in case you are not accepted into medical school.

4. Normally, a pre-medicine student will take the MCAT exam in the spring of their junior year. Therefore, all of the courses on which the MCAT is based (a year of biology, a year of introductory chemistry, a year of organic chemistry, and a year of physics) should be completed by the fall of your junior year. The pre-medical student should work closely with their pre-medicine advisor so all course requirements are fulfilled prior to entrance into medical school. A delay in meeting with the pre-medical advisor will likely result in delayed entrance into medical school.

5. In addition to a strong background in behavioral sciences, English, and humanities, the following courses are specifically required for entrance into most medical schools:

   BIOL 1211, 1212 (some schools require additional biology credits)
   CHEM 2211, 2212, 3311, 3312, 3371, 3372 (some schools require biochemistry)
   ENGL 1151, 2152
   PHYS 1101, 1102 (or) 2101, 2102
   MATH (math requirements vary from school to school)

6. Additional coursework in the sciences and social sciences will help students prepare for the MCAT and provide useful background for medical school courses. Consult the Pre-Medical advisor for suggestions on additional coursework.

7. A suggested pre-medical academic schedule is listed below:

**Freshman**

BIOL 1211, 1212
CHEM 2211, 2212
ENGL 1151, 2152
Electives: Consult your Pre-Medicine Advisor

**Sophomore**

CHEM 3311, 3312
CHEM 3371, 3372
PHYS 1101, 1102 **or** 2101, 2102
Electives: Consult your Pre-Medicine Advisor

**Junior**

Electives: Consult your Pre-Medicine Advisor

**Senior**

Consult your Pre-Medicine Advisor

## Pre-Mortuary Science

**Advisor: Dr. Kerry Openshaw**

1. Pre-mortuary science is a two-year program at Bemidji State University. Students will make application and transfer to another four-year accredited university to complete their baccalaureate degree in mortuary science.

2. Pre-mortuary science students at Bemidji State University should declare themselves as Biology majors and work closely with the pre-mortuary science advisor so that all course requirements are fulfilled prior to entrance into mortuary science school. Delay in meeting with the pre-mortuary science advisor will likely result in delayed entrance into mortuary science school.

3. Courses listed below meet prerequisite requirements for most

mortuary science programs within the United States. Some mortuary science schools may require more courses than listed below. It is the responsibility of the student to research all prerequisite requirements for the mortuary science programs they plan to make application to, and bring all prerequisites to the pre-mortuary science advisor to assist in planning the student's two-year pre-mortuary science academic program at Bemidji State University.

ACCT 1101
BIOL 1110, 1120, 1300, 2110, 3755
BUAD 1100, 2220
CHEM 1111, 1112
ENGL 1151, 2152
HLTH 3500
MATH 1100
PSY 1100
SOC 1104
SPCM 1100
STAT 2610

4. A suggested pre-mortuary science academic schedule is listed below:

**First Year Courses**

BIOL 1110, 1120; F, S; (4,3)
BIOL 1300; S; (2)
CHEM 1111, 1112; F, S; (4,4)
ENGL 1151, 2152; F, S; (3,3)
MATH 1100; F; (3)
SPCM 1100; S; (3)
Electives: Consult the Pre-Mortuary Science Advisor

**Second Year Courses**

ACCT 1101; F; (3)
BIOL 2110, 3755; F, S; (5,3)
BUAD 1100, 2220; F, S; (3,3)
HLTH 3500; S; (3)
PSY 1100; F; (4)
SOC 1104; S; (3)
STAT 2610; S; (4)
Electives: Consult the Pre-Mortuary Science Advisor

## Pre-Occupational Therapy

**Advisors: Dr. Christina Kippenhan, Dr. Kerry Openshaw, Dr. Ken Traxler**

1. The pre-occupational therapy student should fulfill all requirements for a Bachelor of Science or Bachelor of Arts degree at Bemidji State University. The student should declare an academic major. Pre-occupational therapy is not an academic major. The major may be in any field of study. The Allied Health Professions Admission Test (AHPAT) or Graduate Record Examination (GRE) is taken in the spring of the junior year.

2. Many universities are dropping their undergraduate occupational therapy programs and replacing them with a graduate program. Most students enter occupational therapy school after completing a baccalaureate degree. In addition, some occupational therapy schools may require more courses than listed below. It is the responsibility of the pre-occupational therapy student to become aware of these additional requirements and to plan his or her pre-occupational therapy curriculum accordingly.

3. The pre-occupational therapy student should work closely with the pre-occupational therapy advisor so all course requirements are fulfilled prior to entrance into occupational therapy school. Delay in meeting with the pre-occupational therapy advisor will likely result in delayed entrance into occupational therapy school.

4. In addition to a strong background in behavioral sciences, English, and humanities, the following courses are specifically required for entrance into most occupational therapy schools:

BIOL 1211, 1212, 2110, 2360
CHEM 1111, 1112
ENGL 1151, 2152
MATH 1170
PHYS 1101, 1102
PSY 1100, 2217, 2237
SOC 1104

5. The following courses are strongly recommended to be included in the student's pre-occupational therapy curriculum:

ACCT 1100
BIOL 1300, 3920
PHED 3100, 3110, 3200, 3300, 4150
SPCM 1100
STAT 2610

6. A suggested pre-occupational therapy academic schedule is listed below; numbers in parentheses are semester credits:

**Freshman**

BIOL 1211, 1212; F, S; (4,4)
CHEM 1111, 1112; F, S; (4,4)
ENGL 1151, 2152; F, S; (3,3)
MATH 1170; F; (4)
PSY 1100; S (4)
Electives: Consult your Pre-Occupational Therapy Advisor

**Sophomore**

BIOL 1300; F or S; (2)
BIOL 2110, 2360; F, S; (4,4)
BIOL 3920; F; (1)
PHYS 1101, 1102; F, S; (5,5)
PSY 2217, 2237; F, S; (4,4)
SOC 1104; F; (3)
Electives: Consult your Pre-Occupational Therapy Advisor

**Junior and Senior**

Consult your Pre-Occupational Therapy Advisor

## Pre-Optometry

**Advisors: Dr. Holly LaFerriere, Dr. Julie Larson, Dr. Mark Wallert**

1. The pre-optometry student should fulfill all requirements for a

Bachelor of Science degree at Bemidji State University. The student should declare an academic major. Pre-Optometry is not an academic major. The major may be in any field of study. The Optometry Admission Test (OAT) is taken in the winter of the junior year.

2. Early entrance into optometry school is possible for some students. Most students, however, enter optometry school after completing a baccalaureate degree. In addition, some optometry schools may require more courses than listed below. It is the responsibility of the pre-optometry student to become aware of these additional requirements and to plan his or her pre-optometry curriculum accordingly.

3. The pre-optometry student should work closely with the pre-optometry advisor so all course requirements are fulfilled prior to entrance into optometry school. Delay in meeting with the pre-optometry advisor will likely result in delayed entrance into optometry school.

4. General requirements for all schools include at least one year of biology or zoology, general chemistry, general physics, English, college mathematics, and psychology.

   BIOL 1211, 1212, 3710
   CHEM 1111, 1112 (**or**) 2211, 2212; 3311, 3371
   ENGL 1151, 2152
   MATH 1470
   PHYS 1101, 1102 (**or**) 2101, 2102
   PSY 1100

5. The following courses are strongly recommended to be included in the student's pre-optometry curriculum:
   BIOL 2110 **or** 2310
   CHEM 4411, 4471

6. A suggested pre-optometry academic schedule is listed below; numbers in parentheses are semester credits:

**Freshman**

BIOL 1211, 1212; F, S; (3,3)
CHEM 2211, 2212; F, S; (4,4)
ENGL 1151, 2152; F, S; (3,3)
MATH 1470; F or S; (5)
Electives: Consult your Pre-Optometry Advisor

**Sophomore**

BIOL 2110 or 2310, 3710; F, S; (5 or 4,4)
BIOL 3920; F; (1)
CHEM 3311, 3312; F, S; (3,3)
CHEM 3371, 3372; F, S; (1,1)
PHYS 1101, 1102 **or** 2101, 2102; F, S; (4,4 or 5,5)
Electives: Consult your Pre-Optometry Advisor

**Junior**

Electives: Consult your Pre-Optometry Advisor

**Senior**

Consult your Pre-Optometry Advisor

## Pre-Osteopathic Medicine

**Advisors: Dr. Holly LaFerriere, Dr. Mark Wallert**

1. The pre-osteopathic medical student should fulfill all requirements for a Bachelor of Science degree at Bemidji State University. The student should declare an academic major. Pre-Osteopathic Medicine is not an academic major. Although the major may be in any field of study, experience indicates that a Biology or Chemistry major will provide the student with an advantage on the Medical College Admission Test (MCAT). The MCAT is taken by early Spring of the Junior year, and application to osteopathic medical school is submitted by early September of the Senior year.

2. Early entrance into osteopathic medical school is possible for some students. Most students, however, enter osteopathic medical school after completing a baccalaureate degree. In addition, some osteopathic medical schools may require more courses than listed below. It is the responsibility of the pre- osteopathic medical student to become aware of these additional requirements and plan his or her pre-osteopathic medical curriculum accordingly.

3. The pre-osteopathic medical student should work closely with the pre-osteopathic medical advisor so all course requirements are fulfilled prior to entrance into osteopathic medical school. A delay in meeting with the pre- osteopathic medical advisor will likely result in delayed entrance into osteopathic medical school.

4. In addition to a strong background in behavioral sciences, English, and humanities, the following courses are specifically required for entrance into most osteopathic medical schools:

   BIOL 1211, 1212 (additional biology courses may be required)
   CHEM 2211, 2212, 3311, 3312, 3371, 3372 (biochemistry may be required)
   ENGL 1151, 2152
   PHYS 1101, 1102 (or) 2101, 2102

5. The following courses are strongly recommended to be included in the student's pre-osteopathic medicine curriculum:

   BIOL 1300, 2110, 2360, 3250, 3260, 3580, 3590, 3710, 4270
   CHEM 4411, 4412, 4471, 4472
   MATH 2471, 2472

6. Consult your pre-osteopathic medical advisor for additional courses, including Liberal Education courses, which will be most beneficial for successful osteopathic medical school candidates.

7. A suggested pre-osteopathic medicine academic schedule is listed below; numbers in parentheses are semester credits.

**Freshman**

BIOL 1211, 1212; F, S; (4,4)
CHEM 2211, 2212; F, S; (4,4)
ENGL 1151, 2152; F, S; (3,3)
MATH 1470; F or S; (5)
Electives: Consult your Pre-Osteopathic Medical Advisor

**Sophomore**

BIOL 1300; F or S; (2)
CHEM 3311, 3312; F, S; (4,4)

PHYS: Consult your Pre-Osteopathic Medical Advisor
MATH: Consult your Pre-Osteopathic Medical Advisor

**Junior**

BIOL 3250, 3260; F, S (4,4)
Electives: Consult your Pre-Osteopathic Medical Advisor
MCAT—Early Spring

**Senior**

Consult your Pre-Osteopathic Medical Advisor
Osteopathic Medical School Application—Early September

## Pre-Pharmacy

**Advisors: Dr. Julie Larson, Dr. Kerry Openshaw**

**Note:** There is some variation depending on which pharmacy school is attended. Consult with advisor as soon as possible.

**Freshman**

BIOL 1110, 1120 (4,3)
**or** BIOL 1211, 1212 (4,4)
*CHEM 1111, 1112 (4,4)
**or** CHEM 2211, 2212 (4,4)
ENGL 1151, 2152 (3,3)
MATH 1470, 2471 (5,5)
SPCM 1100 (3)
Electives, taken with consent of advisor.
*Which sequence to take depends on which pharmacy school is attended, but 1211, 1212 is recommended.

**Sophomore**

BIOL 2110 (5)
BIOL 3710 (4)
CHEM 3311, 3312 (3,3)
CHEM 3371, 3372 (1,1)
ECON 2000 (3)
MATH 2472 (5)
PHYS 1101, 1102 (4,4)
**or** PHYS 2101, 2102 (5,5)
PSY 1100 (4)
SOC 1104 (3)
Electives, with consent of advisor

## Pre-Physical Therapy

**Advisors: Dr. Christina Kippenhan, Dr. Kerry Openshaw, Dr. Ken Traxler**

1. The pre-physical therapy student should fulfill all requirements for a Bachelor of Science or Bachelor of Arts degree at Bemidji State University. The student should declare an academic major. Pre-physical therapy is not an academic major. The major may be in any field of study. The Allied Health Professions Admission Test (AHPAT) or Graduate Record Examination (GRE) is taken in the spring of the junior year.

2. Many universities are dropping their undergraduate physical therapy programs and replacing them with a graduate program. Most students enter physical therapy school after completing a baccalaureate degree. In addition, some physical therapy schools may require more courses than listed below. It is the responsibility of the pre-physical therapy student to become aware of these additional requirements and to plan his or her pre-physical therapy curriculum accordingly.

3. The pre-physical therapy student should work closely with the pre-physical therapy advisor so all course requirements are fulfilled prior to entrance into physical therapy school. Delay in meeting with the pre-physical therapy advisor will likely result in delayed entrance into physical therapy school.

4. In addition to a strong background in behavioral sciences, English, and humanities, the following courses are specifically required for entrance into most physical therapy schools:

   BIOL 1211, 1212, 2110, 2360, 3710
   CHEM 2211, 2212, 3311, 3312, 3371, 3372
   ENGL 1151, 2152
   MATH 1470
   PHYS 1101, 1102 (**or**) 2101, 2102

5. The following courses are strongly recommended to be included in the student's pre-physical therapy curriculum:

   ACCT 1100
   BIOL 1300, 3590, 3920, 4270
   PHED 3100, 3110, 3190, 3200, 3300, 4150
   PSY 1100, 2217, 2237
   SOC 1104
   SPCM 1100
   STAT 2610

6. A suggested pre-physical therapy academic schedule is listed below; numbers in parentheses are semester credits:

**Freshman**

BIOL 1211, 1212; F, S; (4,4)
CHEM 2211, 2212; F, S; (4,4)
ENGL 1151, 2152; F, S; (3,3)
MATH 1470; F or S; (5)
Electives: Consult your Pre-Physical Therapy Advisor

**Sophomore**

BIOL 1300; F or S; (2)
BIOL 2360, 3710; F, S; (4,4)
BIOL 3920; F; (1)
CHEM 3311, 3312; F, S; (3,3)
CHEM 3371, 3372; F, S; (1,1)
PHYS: Consult your Pre-Physical Therapy Advisor
Electives: Consult your Pre-Physical Therapy Advisor

**Junior**

Electives: Consult your Pre-Physical Therapy Advisor

**Senior**

Consult your Pre-Physical Therapy Advisor

## Pre-Physician Assistant

**Advisors: Dr. Holly LaFerriere, Dr. Julie Larson, Dr. Ken Traxler, Dr. Mark Wallert**

1. The pre-physician assistant student should fulfill all requirements for a Bachelor of Science degree at Bemidji State University. The student should declare an academic major. Pre-Physician Assistant is not an academic major. The major may be in any field of study.

2. Early entrance into physician assistant school is possible for some students. Many physician assistant programs now require more patient care hours to qualify for entrance into their program. Physician Assistant programs in the United States vary significantly, and the pre-physician assistant student must research the type of program they desire to enter. In addition, some physician assistant schools may require more courses than listed below. It is the responsibility of the pre-physician assistant student to become aware of these additional requirements and to plan his or her pre-physician assistant curriculum accordingly.

3. The pre-physician assistant student should work closely with the pre-physician assistant advisor so all course requirements are fulfilled prior to entrance into physician assistant school. Delay in meeting with the pre-physician assistant advisor will likely result in delayed entrance into physician assistant school.

4. In addition to a strong background in behavioral sciences, English, and humanities, the following courses are specifically required for entrance into most physician assistant schools:

   BIOL 1211, 1212, 1300, 2110, 3710
   CHEM 2211, 2212, 3311, 3312, 3371, 3372, 4411, 4412
   ENGL 1151, 2152
   PHYS 1101, 1102 (**or**) 2101, 2102
   STAT 2610

5. The following courses are strongly recommended to be included in the student's pre-physician assistant curriculum:
   BIOL 2360, 3580, 3590, 4270
   CHEM 4471, 4472
   PSY 1100, 2237
6. A suggested pre-physician assistant academic schedule is listed below; numbers in parentheses are semester credits:

**Freshman**

BIOL 1211, 1212; F, S; (4,4)
CHEM 2211, 2212; F, S; (4,4)
ENGL 1151, 2152; F, S; (3,3)
STAT 2610; F or S; (4)
Electives: Consult your Pre-Physician Assistant Advisor

**Sophomore**

BIOL 1300; F or S; (2)
BIOL 2360, 3710; F, S; (4,4)
CHEM 3311, 3312; F, S; (3,3)
CHEM 3371, 3372; F, S; (1,1)
PHYS 1101, 1102, **or** 2101, 2102
Electives: Consult your Pre-Physician Assistant Advisor

**Junior**

Consult your Pre-Physician Assistant Advisor

**Senior**

Consult your Pre-Physician Assistant Advisor

## Pre-Podiatric Medicine

**Advisors: Dr. Mark Wallert**

1. The pre-podiatric medical student should fulfill all requirements for a Bachelor of Science degree at Bemidji State University. The student should declare an academic major. Pre-Podiatric Medicine is not an academic major. Although the major may be in any field of study, experience indicates that a Biology or Chemistry major will provide the student with an advantage on the Medical College Admission Test (MCAT). The MCAT is taken by early Spring of the Junior year, and application to podiatric medical school is submitted by early September of the Senior year.

2. Early entrance into podiatric medical school is possible for some students. Most students, however, enter podiatric medical school after completing a baccalaureate degree. In addition, some podiatric medical schools may require more courses than listed below. It is the responsibility of the pre-podiatric medical student to become aware of these additional requirements and plan his or her pre-podiatric medical curriculum accordingly.

3. The pre-podiatric medical student should work closely with the pre-podiatric medical advisor so all course requirements are fulfilled prior to entrance into podiatric medical school. A delay in meeting with the pre-podiatric medical advisor will likely result in delayed entrance into podiatric medical school.

4. In addition to a strong background in behavioral sciences, English, and humanities, the following courses are specifically required for entrance into most podiatric medical schools:

BIOL 1211, 1212 (additional biology courses may be required)
CHEM 2211, 2212, 3311, 3312, 3371, 3372 (biochemistry may be required)
ENGL 1151, 2152
PHYS 1101, 1102 (or) 2101, 2102

5. The following courses are strongly recommended to be included in the student's pre-podiatric medicine curriculum:

BIOL 1300, 2110, 2360, 3250, 3260, 3580, 3590, 3710, 4270
CHEM 4411, 4412, 4471, 4472
MATH 2471, 2472

6. Consult your pre-podiatric medical advisor for additional courses, including Liberal Education courses, which will be most beneficial for successful podiatric medical school candidates.

7. A suggested pre-podiatric medicine academic schedule is listed below; numbers in parentheses are semester credits.

**Freshman**

BIOL 1211, 1212; F, S; (4,4)
CHEM 2211, 2212; F, S; (4,4)

ENGL 1151, 2152; F, S; (3,3)
MATH 1470; F or S; (5)
Electives: Consult your Pre-Podiatric Medical Advisor

**Sophomore**

BIOL 1300; F or S; (2)
CHEM 3311, 3312; F, S; (4,4)
PHYS: Consult your Pre-Podiatric Medical Advisor
MATH: Consult your Pre-Podiatric Medical Advisor

**Junior**

BIOL 3250, 3260; F, S (4,4)
Electives: Consult your Pre-Podiatric Medical Advisor
MCAT—Early Spring

**Senior**

Consult your Pre-Podiatric Medical Advisor
Podiatric Medical School Application—Early September

## Pre-Veterinary Medicine

**Advisors: Dr. Holly LaFerriere, Dr. Kerry Openshaw, Dr. Ken Traxler**

1. The pre-veterinary medical student should fulfill all requirements for a Bachelor of Science degree at Bemidji State University. The student should declare an academic major. Pre-Veterinary Medicine is not an academic major. Although the major may be in any field of study, experience indicates that a science major will provide the student with an advantage while attending veterinary medical school and in preparing for the Veterinary College Admissions Test. Most veterinary medical schools require the student to take the Graduate Record Examination (GRE) or the Veterinary College Admissions Test (VCAT). The GRE or VCAT is taken in the spring of the junior year.

2. Admission to veterinary school is very competitive. Accepted students typically have a grade point average of 3.70 and average GRE scores of 1800 or higher. Pre-veterinary students should plan their program so they have other options if they are not admitted to veterinary school.

3. Early entrance into veterinary medical school is possible for some students. Most students, however, enter veterinary medical school after completing a baccalaureate degree. In addition, some veterinary medical schools may require more courses than listed below. It is the responsibility of the pre-veterinary medical student to become aware of these additional requirements and to plan his or her pre-veterinary medical curriculum accordingly.

4. The pre-veterinary medical student should work closely with the pre-veterinary medicine advisor so all course requirements are fulfilled prior to entrance into veterinary medical school. A delay in meeting with your pre-veterinary medicine advisor will likely result in delayed entrance into veterinary medical school.

5. In addition to a strong background in behavioral sciences, English, and humanities, the following courses are specifically required for entrance into most pre-veterinary medical schools:

   BIOL 1211, 1212, 2360
   CHEM 2211, 2212, 3311, 3312, 3371, 3372, 4411
   ENGL 1151, 2152
   PHYS 1101, 1102 (or) 2101, 2102
   MATH (math requirements vary from school to school)

6. In addition, the following courses are recommended, as they are required by some veterinary schools:

   BIOL 3250, 3260, 3710
   CHEM 4412, 4471
   SPCM 1100

7. A suggested pre-veterinary medical academic schedule is listed below:

**Freshman**

BIOL 1211, 1212
CHEM 2211, 2212
ENGL 1151, 2152
MATH (Choose course(s) based on requirements of school you plan to attend)
Electives: Consult your Pre-Veterinary Medicine Advisor

**Sophomore**

BIOL 2360
CHEM 3311, 3312
CHEM 3371, 3372
PHYS 1101, 1102 (or) 2101, 2102
Other recommended Pre-Veterinary courses
Electives: Consult your Pre-Veterinary Medicine Advisor

**Junior**

CHEM 4411
Other recommended Pre-Veterinary courses
Electives: Consult your Pre-Veterinary Medicine Advisor

**Senior**

Consult your Pre-Veterinary Medicine Advisor

# Professional Education

The teacher is a reflective professional who nurtures the potential of individuals through a knowledge of child and adolescent development and who addresses the diversity of student needs in a multicultural society. The teacher has the ability to mesh effectively the methodologies, theories, concepts, and principles upon which the art and science of education are built. Working from a pedagogical and academic knowledge base, the teacher integrates these elements into effective teaching to promote growth in cognitive and affective learning. In addition, the teacher, as a life-long learner, keeps abreast of current trends and research while working with colleagues, administrators, other professionals, and parents to enhance the educational process now and in the future. The model that forms the basis for the programs is fully described in the department's Teacher Education Handbook.

**For All Education Majors**
**General Entry Requirements**

A Basic Skills test (MTLE) taken and on file. (If all sections of the test are not passed, a plan for remediation must be completed, filed with the Clinical Experiences Office, and be approved, prior to the completion of ED 3100.)

30 semester credits completed

2.50 GPA

**General Exit Requirements**

A minimum GPA of 2.50 in professional education, major/minor, and overall course work.

Signed forms by the cooperating teacher and the faculty supervisor that the student has satisfactorily completed student teaching for each licensure sought.

Scores at or above minimums on basic skills tests required by the State of Minnesota or Department of Professional Education.

An acceptable score on standardized professional field competency assessments.

**Programs**

- Elementary Education, B.S. ((Teacher Licensure))*major*
- Elementary Education, B.S. (Mathematics Endorsement (Teacher Licensure))*major*
- Elementary Education, B.S. (Pre-Primary Endorsement (Teacher Licensure))*major*
- Elementary Education, B.S. (Communication Arts & Literature Endorsement (Teacher Licensure))*major*
- Elementary Education, B.S. (Social Studies Endorsement (Teacher Licensure))*major*
- Elementary Education, B.S. (Science Endorsement (Teacher Licensure))*major*
- English Education, B.S. ((Teacher Licensure))*major*
- Health Education. B.S. ((Teacher Licensure))*major*
- Mathematics Education, B.S. ((Teacher Licensure))*major*
- Music Education, B.S. (Vocal/classroom K-12 Specialization (Teacher Licensure))*major*
- Music Education, B.S. (Instrumental/classroom K-12 Specialization (Teacher Licensure))*major*
- Physical Education, B.S. ((Teacher Licensure))*major*
- Science Education, B.S. (Physics Specialty (Teacher Licensure))*major*
- Science Education, B.S. (Life Science Specialty (Teacher Licensure))*major*
- Science Education, B.S. (Earth and Space Science Specialty (Teacher Licensure))*major*
- Science Education, B.S. (Chemistry Specialty (Teacher Licensure))*major*
- Social Studies Education, B.S. ((Teacher Licensure))*major*
- Spanish Education, B.S. ((Teacher Licensure))*major*

**Career Directions**

Adult Educator
Community Education Coordinator
Curriculum Developer
Education Specialist
Preschool, Elementary, Middle School, Secondary Teacher
Training Manager
Youth Program Director
Also: Graduate Study

**Preparation**

*Recommended High School Courses*

Science
Psychology
Health
Human Development
Oral and Written Communication
Computer Use
Geography
Mathematics

*Recommended Liberal Education Courses*

Introductory Psychology
A Speech Course
Ojibwe/American Indian Culture and History
Music Fundamentals (Elementary Education)

## Elementary Education, B.S. *major* (Teacher Licensure)

Required Credits: 63
Required GPA: 2.50

**I ELEMENTARY EDUCATION FOUNDATION COURSES**

COMPLETE THE FOLLOWING COURSES:

- ED 3100 Introduction to the Foundations of Public School Education (3 credits)
- ED 3110 Educational Psychology (3 credits)
- ED 3140 Human Relations In Education (3 credits)
- ED 3350 Pedagogy: Planning for Instruction (3 credits)
- ED 3780 Adaptation and Management: Designing the Learning Environment (3 credits)
- ED 4799 The Professional Teacher (1 credit)
- HLTH 3400 Health and Drugs in Society (2 credits)

COMPLETE THE FOLLOWING COURSE, UP TO 12 CREDITS:

- ED 4820 Student Teaching - Elementary (1-16 credits)

**II ELEMENTARY EDUCATION MAJOR COURSES**

COMPLETE THE FOLLOWING COURSES:

- ED 3201 Language Arts I (3 credits)
- ED 3202 Language Arts II (3 credits)
- ED 3203 Language Arts III (3 credits)
- ED 3221 Elementary Math Methods (3 credits)
- ED 3222 Elementary Science Methods (3 credits)
- ED 3240 Social Studies in the Elementary School (3 credits)
- ED 3301 Creative Expressions (3 credits)
- ED 3302 Creative Process Foundations: Patterns (3 credits)
- HLTH 4100 Teaching Elementary School Health (2 credits)
- PHED 4200 Methods of Teaching Elementary Physical Education to Classroom Teachers (1 credit)

COMPLETE THE FOLLOWING COURSE:

- MATH 1011 Mathematics for Elementary School Teachers I (3 credits)

COMPLETE THE FOLLOWING COURSE:

- MATH 1013 Mathematics for Elementary School Teachers II (3 credits)

## Elementary Education, B.S. *major* Mathematics Endorsement (Teacher Licensure)

Required Credits: 85
Required GPA: 2.50

**I ELEMENTARY EDUCATION FOUNDATION COURSES**

COMPLETE THE FOLLOWING COURSES:

- ED 3100 Introduction to the Foundations of Public School Education (3 credits)
- ED 3110 Educational Psychology (3 credits)
- ED 3140 Human Relations In Education (3 credits)
- ED 3350 Pedagogy: Planning for Instruction (3 credits)
- ED 3780 Adaptation and Management: Designing the Learning

Environment (3 credits)
- ED 4799 The Professional Teacher (1 credit)
- HLTH 3400 Health and Drugs in Society (2 credits)

COMPLETE THE FOLLOWING COURSE:

- ED 4820 Student Teaching - Elementary (1-16 credits)

**II ELEMENTARY EDUCATION MAJOR COURSES**

COMPLETE THE FOLLOWING COURSES:

- ED 3201 Language Arts I (3 credits)
- ED 3202 Language Arts II (3 credits)
- ED 3203 Language Arts III (3 credits)
- ED 3221 Elementary Math Methods (3 credits)
- ED 3222 Elementary Science Methods (3 credits)
- ED 3240 Social Studies in the Elementary School (3 credits)
- ED 3301 Creative Expressions (3 credits)
- ED 3302 Creative Process Foundations: Patterns (3 credits)
- HLTH 4100 Teaching Elementary School Health (2 credits)
- PHED 4200 Methods of Teaching Elementary Physical Education to Classroom Teachers (1 credit)

COMPLETE THE FOLLOWING COURSE:

- MATH 1011 Mathematics for Elementary School Teachers I (3 credits)

COMPLETE THE FOLLOWING COURSE:

- MATH 1013 Mathematics for Elementary School Teachers II (3 credits)

**MATHEMATICS ENDORSEMENT**

ENDORSEMENT CORE:

- ED 4737 Content Area Reading (3 credits)
- ED 3417 Teaching and Learning in the Middle School (3 credits)
- ED 4840 Student Teaching - Special Fields (5 credits)

COMPLETE THE FOLLOWING COURSES:

- MATH 3064 Number Concepts for Teachers (4 credits)
- MATH 3065 Mathematical Foundations of Algebra for Teachers (4 credits)
- MATH 3066 Geometry and Technology in the Mathematics Classroom (4 credits)
- MATH 3067 Data Investigations, Probability, and Statistics for Teachers (4 credits)

## Elementary Education, B.S. *major*
## Pre-Primary Endorsement (Teacher Licensure)

Required Credits: 74
Required GPA: 2.50

**I ELEMENTARY EDUCATION FOUNDATION COURSES**

COMPLETE THE FOLLOWING COURSES:

- ED 3100 Introduction to the Foundations of Public School Education (3 credits)
- ED 3110 Educational Psychology (3 credits)
- ED 3140 Human Relations In Education (3 credits)
- ED 3350 Pedagogy: Planning for Instruction (3 credits)
- ED 3780 Adaptation and Management: Designing the Learning Environment (3 credits)
- ED 4799 The Professional Teacher (1 credit)
- HLTH 3400 Health and Drugs in Society (2 credits)

COMPLETE THE FOLLOWING COURSE, UP TO 12 CREDITS:

- ED 4820 Student Teaching - Elementary (1-16 credits)

**II ELEMENTARY EDUCATION MAJOR COURSES**

COMPLETE THE FOLLOWING COURSES:

- ED 3201 Language Arts I (3 credits)
- ED 3202 Language Arts II (3 credits)
- ED 3203 Language Arts III (3 credits)
- ED 3221 Elementary Math Methods (3 credits)
- ED 3222 Elementary Science Methods (3 credits)
- ED 3240 Social Studies in the Elementary School (3 credits)
- ED 3301 Creative Expressions (3 credits)
- ED 3302 Creative Process Foundations: Patterns (3 credits)
- HLTH 4100 Teaching Elementary School Health (2 credits)
- PHED 4200 Methods of Teaching Elementary Physical Education to Classroom Teachers (1 credit)

COMPLETE THE FOLLOWING COURSE:

- MATH 1011 Mathematics for Elementary School Teachers I (3 credits)

COMPLETE THE FOLLOWING COURSE:

- MATH 1013 Mathematics for Elementary School Teachers II (3 credits)

**PREPRIMARY ENDORSEMENT**

COMPLETE THE FOLLOWING COURSES:

- ED 3670 Foundations of Early Childhood Education (3 credits)
- ED 3677 Relations and Management in Early Childhood Education (3 credits)

COMPLETE THE FOLLOWING COURSE, 5 CREDITS:

- ED 4811 Preprimary Student Teaching (3-10 credits)

## Elementary Education, B.S. *major*
## Communication Arts & Literature Endorsement (Teacher Licensure)

Required Credits: 86
Required GPA: 2.50

**I ELEMENTARY EDUCATION FOUNDATION COURSES**

COMPLETE THE FOLLOWING COURSES:

- ED 3100 Introduction to the Foundations of Public School Education (3 credits)
- ED 3110 Educational Psychology (3 credits)
- ED 3140 Human Relations In Education (3 credits)
- ED 3350 Pedagogy: Planning for Instruction (3 credits)
- ED 3780 Adaptation and Management: Designing the Learning

Environment (3 credits)
- ED 4799 The Professional Teacher (1 credit)
- HLTH 3400 Health and Drugs in Society (2 credits)

COMPLETE THE FOLLOWING COURSE, UP TO 12 CREDITS:

- ED 4820 Student Teaching - Elementary (1-16 credits)

**II ELEMENTARY EDUCATION MAJOR COURSES**

COMPLETE THE FOLLOWING COURSES:

- ED 3201 Language Arts I (3 credits)
- ED 3202 Language Arts II (3 credits)
- ED 3203 Language Arts III (3 credits)
- ED 3221 Elementary Math Methods (3 credits)
- ED 3222 Elementary Science Methods (3 credits)
- ED 3240 Social Studies in the Elementary School (3 credits)
- ED 3301 Creative Expressions (3 credits)
- ED 3302 Creative Process Foundations: Patterns (3 credits)
- HLTH 4100 Teaching Elementary School Health (2 credits)
- PHED 4200 Methods of Teaching Elementary Physical Education to Classroom Teachers (1 credit)

COMPLETE THE FOLLOWING COURSE:

- MATH 1011 Mathematics for Elementary School Teachers I (3 credits)

COMPLETE THE FOLLOWING COURSE:

- MATH 1013 Mathematics for Elementary School Teachers II (3 credits)

**COMMUNICATION ARTS AND LITERATURE ENDORSEMENT**

COMPLETE THE FOLLOWING COURSES:

- ED 3208 Developmental Reading in Middle School (3 credits)
- ED 3217 Curriculum Enrichment through Media Resources (3 credits)
- ED 3417 Teaching and Learning in the Middle School (3 credits)
- ED 4737 Content Area Reading (3 credits)
- ENGL 2355 American Literature, 1865 to Present (3 credits)
- ENGL 3540 Literature for Young Adults (3 credits)
- ENGL 3580 The English Language (3 credits)

COMPLETE THE FOLLOWING COURSE (5 CREDITS):

- ED 4840 Student Teaching - Special Fields (1-12 credits)

**COMMUNICATION ARTS AND LITERATURE ENDORSEMENT**

SELECT 1 OF THE FOLLOWING COURSES:

- ENGL 2357 British and World Drama (3 credits)
- ENGL 2358 British and World Poetry (3 credits)
- ENGL2370
- ENGL2375

**PROFESSIONAL EDUCATION COURSES MUST BE COMPLETED**

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## Elementary Education, B.S. *major*
## Social Studies Endorsement (Teacher Licensure)

Required Credits: 92

Required GPA: 2.50

**I ELEMENTARY EDUCATION FOUNDATION COURSES**

COMPLETE THE FOLLOWING COURSES:

- ED 3100 Introduction to the Foundations of Public School Education (3 credits)
- ED 3110 Educational Psychology (3 credits)
- ED 3140 Human Relations In Education (3 credits)
- ED 3350 Pedagogy: Planning for Instruction (3 credits)
- ED 3780 Adaptation and Management: Designing the Learning Environment (3 credits)
- ED 4799 The Professional Teacher (1 credit)
- HLTH 3400 Health and Drugs in Society (2 credits)

COMPLETE THE FOLLOWING COURSE:

- ED 4820 Student Teaching - Elementary (1-16 credits)

**II ELEMENTARY EDUCATION MAJOR COURSES**

COMPLETE THE FOLLOWING COURSES:

- ED 3201 Language Arts I (3 credits)
- ED 3202 Language Arts II (3 credits)
- ED 3203 Language Arts III (3 credits)
- ED 3221 Elementary Math Methods (3 credits)
- ED 3222 Elementary Science Methods (3 credits)
- ED 3240 Social Studies in the Elementary School (3 credits)
- ED 3301 Creative Expressions (3 credits)
- ED 3302 Creative Process Foundations: Patterns (3 credits)
- HLTH 4100 Teaching Elementary School Health (2 credits)
- PHED 4200 Methods of Teaching Elementary Physical Education to Classroom Teachers (1 credit)

COMPLETE THE FOLLOWING COURSE:

- MATH 1011 Mathematics for Elementary School Teachers I (3 credits)

COMPLETE THE FOLLOWING COURSE:

- MATH 1013 Mathematics for Elementary School Teachers II (3 credits)

**SOCIAL STUDIES ENDORSEMENT**

ENDORSEMENT CORE:

- ED 4737 Content Area Reading (3 credits)
- ED 3417 Teaching and Learning in the Middle School (3 credits)
- ED 4840 Student Teaching - Special Fields (1-12 credits)

COMPLETE THE FOLLOWING COURSES:

- ECON 2000 Markets and Resource Allocation (3 credits)
- GEOG 2100 Introduction to Physical Geography (3 credits)
- GEOG 2200 Introduction to Human Geography (3 credits)
- HST 1115 United States History II, since 1877 (3 credits)
- HST 2610 Minnesota History (3 credits)
- POL 1200 Introduction to American Politics (3 credits)

## Elementary Education, B.S. *major*
## Science Endorsement (Teacher Licensure)

Required Credits: 101

Required GPA: 2.50

**I ELEMENTARY EDUCATION FOUNDATION COURSES**

COMPLETE THE FOLLOWING COURSES:

- ED 3100 Introduction to the Foundations of Public School Education (3 credits)
- ED 3110 Educational Psychology (3 credits)
- ED 3140 Human Relations In Education (3 credits)
- ED 3350 Pedagogy: Planning for Instruction (3 credits)
- ED 3780 Adaptation and Management: Designing the Learning Environment (3 credits)
- ED 4799 The Professional Teacher (1 credit)
- HLTH 3400 Health and Drugs in Society (2 credits)

COMPLETE THE FOLLOWING COURSE, UP TO 12 CREDITS:

- ED 4820 Student Teaching - Elementary (1-16 credits)

**II ELEMENTARY EDUCATION MAJOR COURSES**

COMPLETE THE FOLLOWING COURSES:

- ED 3201 Language Arts I (3 credits)
- ED 3202 Language Arts II (3 credits)
- ED 3203 Language Arts III (3 credits)
- ED 3221 Elementary Math Methods (3 credits)
- ED 3222 Elementary Science Methods (3 credits)
- ED 3240 Social Studies in the Elementary School (3 credits)
- ED 3301 Creative Expressions (3 credits)
- ED 3302 Creative Process Foundations: Patterns (3 credits)
- HLTH 4100 Teaching Elementary School Health (2 credits)
- PHED 4200 Methods of Teaching Elementary Physical Education to Classroom Teachers (1 credit)

COMPLETE THE FOLLOWING COURSE:

- MATH 1011 Mathematics for Elementary School Teachers I (3 credits)

COMPLETE THE FOLLOWING COURSE:

- MATH 1013 Mathematics for Elementary School Teachers II (3 credits)

**SCIENCE ENDORSEMENT**

COMPLETE THE FOLLOWING COURSES:

- BIOL 1211 Introductory Biology I (4 credits)
  *or* BIOL 1110 Human Biology (4 credits)
- BIOL 1212 Introductory Biology II (4 credits)
  *or* BIOL 1120 General Biology: Evolution And Ecology (3 credits)
- CHEM 2211 Principles of Chemistry I (4 credits)
  *or* CHEM 1111 General Chemistry I (4 credits)
- CHEM 2212 Principles of Chemistry II (4 credits)
  *or* CHEM 1112 General Chemistry II (4 credits)
- GEOL 1110 Physical Geology (4 credits)
- SCI 3100 Integrative Science for Teachers (4 credits)
- SCI 3450 Science Methods For Grades 5-8 (4 credits)
  *or* ED 3410 Middle School Science Methods (4 credits)

EDUCATION CORE
COMPLETE THE FOLLOWING COURSES:

- ED 3417 Teaching and Learning in the Middle School (3 credits)
- ED 4737 Content Area Reading (3 credits)

COMPLETE THE FOLLOWING COURSE (5 CREDITS):

- ED 4840 Student Teaching - Special Fields (1-12 credits)

## English Education, B.S. *major* (Teacher Licensure)

Note: The name that will appear on the licensure is Communication Arts and Literature.

Required Credits: 84
Required GPA: 2.50

**I REQUIRED COURSES**

COMPLETE THE FOLLOWING COURSES:

- ENGL 2350 American Literature, to 1865 (3 credits)
- ENGL 2355 American Literature, 1865 to Present (3 credits)
- ENGL 3540 Literature for Young Adults (3 credits)
- ENGL 3580 The English Language (3 credits)
  *or* ML 3430 Linguistics (3 credits)
- ENGL 4420 Shakespeare and His Age (3 credits)
  *or* ENGL 4429 Shakespeare for Teachers (3 credits)
- ENGL 4455 Seminar: Literary Criticism and Theory (3 credits)

SELECT 2 OF THE FOLLOWING COURSES:

- ENGL 2357 British and World Drama (3 credits)
- ENGL 2358 British and World Poetry (3 credits)
- ENGL 2359 British and World Prose (3 credits)

SELECT 1 OF THE FOLLOWING COURSES:

- ENGL 2150 Technical Writing (3 credits)
- ENGL 3155 Professional Writing (3 credits)
- ENGL 3177 Weblogs and Wikis (3 credits)
- ENGL 3179 Elements of Electronic Rhetoric (3 credits)
- ENGL 3530 Teaching Writing with Technology (3 credits)

**II REQUIRED ELECTIVES**

Select 12 semester credits from the following courses;
at least three credits must be at the 4000 level.
The courses may be taken multiple times with different
topic subtitles.

- ENGL 3101 Advanced Writing (3 credits)
- ENGL 3183 Topics in Writing or Rhetoric (3 credits)
- ENGL 3600 Author Topics (3 credits)
- ENGL 3606 Culture Topics (3 credits)
- ENGL 3607 Film Topics (3 credits)
- ENGL 3608 Genre Topics (3 credits)
- ENGL 3609 Period Topics (3 credits)
- ENGL 4183 Advanced Topics in Writing or Rhetoric (3 credits)
- ENGL 4700 Advanced Author Topics (3 credits)
- ENGL 4706 Advanced Culture Topics (3 credits)
- ENGL 4707 Advanced Film Topics (3 credits)
- ENGL 4708 Advanced Genre Topics (3 credits)
- ENGL 4709 Advanced Period Topics (3 credits)

**III REQUIRED FOR LICENSURE**

COMPLETE THE FOLLOWING COURSES:

-NOTE-

ED 4737 IS REQUIRED FOR LICENSURE AND IS LISTED UNDER THE SECONDARY EDUCATION CORE REQUIREMENT

ED 3208 HAS A PREREQUISITE NOT INCLUDED IN THIS MAJOR.

- ED 3208 Developmental Reading in Middle School (3 credits)
- ENGL 3520 Writing for the Secondary School Teacher (3 credits)
- ENGL 3550 Methods of Teaching English and Communication (4 credits)
- MASC 1100 Mass Media and Society (3 credits)

**REQUIRED PROFESSIONAL EDUCATION COURSES**

COMPLETE THE FOLLOWING COURSES:

- ED 3100 Introduction to the Foundations of Public School Education (3 credits)
- ED 3110 Educational Psychology (3 credits)
- ED 3140 Human Relations In Education (3 credits)
- ED 3350 Pedagogy: Planning for Instruction (3 credits)
- ED 3780 Adaptation and Management: Designing the Learning Environment (3 credits)
- ED 4737 Content Area Reading (3 credits)
- ED 4799 The Professional Teacher (1 credit)
- HLTH 3400 Health and Drugs in Society (2 credits)

Complete 12 credits of student teaching:

- ED 4830 Student Teaching - Secondary (1-12 credits)

## Health Education. B.S. *major* (Teacher Licensure)

Required Credits: 71
Required GPA: 2.50

**I REQUIRED COURSES**

COMPLETE THE FOLLOWING COURSES:
NOTE: HLTH 3400 IS INCLUDED IN THE REQUIRED PROFESSIONAL EDUCATION COURSES BELOW.

- BIOL 1110 Human Biology (4 credits)
- BIOL 2110 Human Anatomy and Physiology (5 credits)
- HLTH 2100 First Aid and CPR/AED (1 credit)
- HLTH 3150 Theoretical and Ethical Foundations of Health (3 credits)
- HLTH 3200 Personal and Consumer Health (3 credits)
- HLTH 3300 Nutrition (3 credits)
- HLTH 3500 Community Health (3 credits)
- HLTH 3710 Disease Prevention and Epidemiology (3 credits)
- HLTH 4206 Secondary School Health (2 credits)
- HLTH 4410 Health Programming (3 credits)
- PHED 3300 Physiology of Exercise and Nutrition (3 credits)
- PHED 4309 Legal Aspects of Sport, Health, and Fitness (3 credits)

COMPLETE THE FOLLOWING COURSE:

- HLTH 4920 Directed Group Study: Health Seminar (1 credit)

COMPLETE THE FOLLOWING COURSE:

- HLTH 4970: Practicum in Health Teaching

**REQUIRED PROFESSIONAL EDUCATION COURSES**

COMPLETE THE FOLLOWING COURSES:

- ED 3100 Introduction to the Foundations of Public School Education (3 credits)
- ED 3110 Educational Psychology (3 credits)
- ED 3140 Human Relations In Education (3 credits)
- ED 3350 Pedagogy: Planning for Instruction (3 credits)
- ED 3780 Adaptation and Management: Designing the Learning Environment (3 credits)
- ED 4737 Content Area Reading (3 credits)
- ED 4799 The Professional Teacher (1 credit)
- HLTH 3400 Health and Drugs in Society (2 credits)

Complete 12 credits of student teaching:

- ED 4830 Student Teaching - Secondary (1-12 credits)

**SUGGESTED SEMESTER SCHEDULE FOR HEALTH EDUCATION MAJOR, B.S. (TEACHER LICENSURE)**

The following is a list of required Health Education Major, B.S. courses arranged by year. This schedule is intended to help students plan their courses in an orderly fashion; however, these are only suggestions and this schedule is flexible.
Freshman

- BIOL 1110 Human Biology (4 credits)
- HLTH 2100 First Aid and CPR/AED (1 credit)
- Liberal Education requirements

Sophomore

- BIOL 2110 Human Anatomy and Physiology (5 credits)
- HLTH 3150 Theoretical and Ethical Foundations of Health (3 credits)
- HLTH 3200 Personal and Consumer Health (3 credits)
- Complete Liberal Education requirements
- Take the Minnesota Teacher Licensure Exam (MTLE) Basic Skills test

Junior

- Begin Professional Education Standards of Effective Practice (SEP) courses
- HLTH 3300 Nutrition (3 credits)
- PHED 3300 Physiology of Exercise and Nutrition (3 credits)
- HLTH 3500 Community Health (3 credits)
- HLTH 3710 Disease Prevention and Epidemiology (3 credits)
- HLTH 4206 Secondary School Health (2 credits)
- HLTH 4970 Internship (1-12 credits)

Senior

- HLTH 4410 Health Programming (3 credits)
- HLTH 4920 Directed Group Study: Health Seminar (1 credit)
- PHED 4309 Legal Aspects of Sport, Health, and Fitness (3 credits)
- Complete Professional Education Standards of Effective Practice (SEP) courses
- Student teaching

## Mathematics Education, B.S. *major* (Teacher Licensure)

The Mathematics Bachelor of Science (Teacher Licensure) follows the guidelines of the National Council of Teacher of Mathematics for undergraduate programs for teachers of mathematics. Students majoring in this degree should also check the Professional Education requirements found in Professional Education:

Secondary.

Note: If the student's high school mathematics courses and/or the Mathematics Placement Test indicate a lack of readiness for calculus, the student will be placed in one of the following precalculus sequences: MATH 1470; or MATH 1170 and MATH 1180; or MATH 1170 and MATH 1470. Students who need to take more than one course in preparation for calculus may not be able to complete this program without exceeding 120 credits.

Required Credits: 76
Required GPA: 2.50

**I REQUIRED CORE COURSES**

COMPLETE THE FOLLOWING COURSES:

- MATH 2210 Discrete Mathematics (4 credits)
- MATH 2471 Calculus I (5 credits)
- MATH 2472 Calculus II (5 credits)
- MATH 2480 Multivariable Calculus (4 credits)
- MATH 3310 Linear Algebra (4 credits)

**II REQUIRED ELECTIVES**

COMPLETE THE FOLLOWING COURSES:

- MATH 3065 Mathematical Foundations of Algebra for Teachers (4 credits)
- MATH 3560 Classical and Modern Geometry (3 credits)

SELECT 1 OF THE FOLLOWING COURSES:

- MATH 3067 Data Investigations, Probability, and Statistics for Teachers (4 credits)
- STAT 2610 Applied Statistics (4 credits)
- STAT 3631 Probability and Statistics I (4 credits)

SELECT 1 OF THE FOLLOWING COURSES:

- MATH 4350 Abstract Algebra (3 credits)
- MATH 4371 Modern Algebra (3 credits)

**III REQUIRED CONCENTRATION, SECOND EDUCATION MAJOR OR MIDDLE LEVEL ENDORSEMENT**

COMPLETE ONE OF THE FOLLOWING OPTIONS:

Note: If taken under II. above, MATH 3067 or STAT 3631 may be used to meet this requirement.

A. APPLIED MATHEMATICS/ CALCULUS CONCENTRATION
COMPLETE 2 OF THE FOLLOWING COURSES:

- MATH 2490 Differential Equations (4 credits)
- MATH 3710 Mathematical Modeling (3 credits)
- MATH 3720 Numerical Methods (3 credits)
- MATH 4410 Introduction to Analysis (3 credits)
- MATH 4760 Topics in Applied Mathematics (3 credits)

B. COMPUTER SCIENCE CONCENTRATION
COMPLETE 2 OF THE FOLLOWING COURSES:

- CS 2270 Introduction to Web Programming (3 credits)
- CS 2321 Computer Science I (4 credits)
- CS 2322 Computer Science II (4 credits)

C. MIDDLE LEVEL MATHEMATICS CONCENTRATION
COMPLETE 2 OF THE FOLLOWING COURSES:

- MATH 3064 Number Concepts for Teachers (4 credits)
- MATH 3066 Geometry and Technology in the Mathematics Classroom (4 credits)
- MATH 3067 Data Investigations, Probability, and Statistics for Teachers (4 credits)

D. STATISTICS CONCENTRATION
COMPLETE 2 OF THE FOLLOWING COURSES:

- STAT 3610 Time Series Analysis (3 credits)
- STAT 3631 Probability and Statistics I (4 credits)
- STAT 3632 Probability and Statistics II (3 credits)

E: COMPLETE A SECONDARY EDUCATION MAJOR
(OTHER THAN MATHEMATICS)

F: COMPLETE A MIDDLE LEVEL ENDORSEMENT
(OTHER THAN MATHEMATICS)

**REQUIRED PROFESSIONAL EDUCATION COURSES**

COMPLETE THE FOLLOWING COURSES:

- ED 3100 Introduction to the Foundations of Public School Education (3 credits)
- ED 3110 Educational Psychology (3 credits)
- ED 3140 Human Relations In Education (3 credits)
- ED 3350 Pedagogy: Planning for Instruction (3 credits)
- ED 3440 Mathematics Methods in the Secondary School (4 credits)
- ED 3780 Adaptation and Management: Designing the Learning Environment (3 credits)
- ED 4737 Content Area Reading (3 credits)
- ED 4799 The Professional Teacher (1 credit)
- HLTH 3400 Health and Drugs in Society (2 credits)

COMPLETE 12 CREDITS OF THE FOLLOWING COURSE

- ED 4830 Student Teaching - Secondary (1-12 credits)

**Program Learning Outcomes | Mathematics Education, B.S.**

1. Knowledge: Students will understand the content and methods of the core areas of undergraduate mathematics.

2. Analysis: Students will identify, interpret and analyze problems, discern structure and pattern and make conjectures.

3. Application: Students will apply appropriate procedures and technology to solve problems.

4. Proof: Students will apply creative and analytic thinking to develop clear and valid mathematical arguments.

5. Communication: Students will communicate mathematical ideas and understanding effectively.

6. Pedagogy: Student will develop an understanding of a variety of pedagogical

techniques and be able to apply them to the design of lessons and curriculum that communicate mathematical concepts to learners with diverse learning styles and ability levels.

7. Career Readiness: Students will be prepared for careers in education and further study in mathematics.

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## Music Education, B.S. *major*
## Vocal/classroom K-12 Specialization (Teacher Licensure)

Required Credits: 93
Required GPA: 2.50

**I REQUIRED MUSIC CORE COURSES**

COMPLETE THE FOLLOWING COURSE (REQUIRED 7 TIMES):

- MUS 1800 Performance Laboratory (0 credit)

COMPLETE THE FOLLOWING COURSES:
(Completion of these courses with a grade of "C" or better is required for all music degrees.)

- MUS 2110 World Music (2 credits)
- MUS 2201 Music Theory and Musicianship I (5 credits)
- MUS 2202 Music Theory and Musicianship II (5 credits)
- MUS 3201 Music Theory and Musicianship III (5 credits)
- MUS 3202 Music Theory and Musicianship IV (4 credits)
- MUS 3501 Music Technology I (2 credits)
- MUS 3618 Conducting Fundamentals (2 credits)
- MUS 3801 History and Literature of Music I (3 credits)
- MUS 3802 History and Literature of Music II (3 credits)

COMPLETE THE FOLLOWING COURSES:

- MUS 2310 Piano Proficiency (0 credit)
- MUS 3898 Degree Recital (0 credit)

**REQUIRED PROFESSIONAL EDUCATION COURSES**

COMPLETE THE FOLLOWING COURSES:

- ED 3100 Introduction to the Foundations of Public School Education (3 credits)
- ED 3110 Educational Psychology (3 credits)
- ED 3140 Human Relations In Education (3 credits)
- ED 3350 Pedagogy: Planning for Instruction (3 credits)
- ED 3780 Adaptation and Management: Designing the Learning Environment (3 credits)
- ED 4737 Content Area Reading (3 credits)
- ED 4799 The Professional Teacher (1 credit)
- HLTH 3400 Health and Drugs in Society (2 credits)

Complete 12 credits of student teaching:

- ED 4830 Student Teaching - Secondary (1-12 credits)

**VOCAL AND CLASSROOM MUSIC**

REQUIRED CORE COURSES

NOTE: Piano majors replace MUS 3417 with MUS 4106, Piano Pedagogy I (2 credits). MUS 4106 requires consent of instructor.

Select two of the following methods courses(2 credits):

- MUS 1348 String Methods (1 credit)
- MUS 1368 High Brass Methods (1 credit)
- MUS 1369 Low Brass Methods (1 credit)
- MUS 1378 Percussion Methods (1 credit)
- MUS 1388 Single Reeds Methods (1 credit)
- MUS 1389 Double Reeds/Flute Methods (1 credit)

COMPLETE THE FOLLOWING COURSES:

Note: Piano majors replace MUS 2417 with MUS 4106,which requires consent of instructor.

- MUS 2417 Diction For Singers I (2 credits)
- MUS 2418 Diction for Singers II (2 credits)
- MUS 2607 Music Education I: Introduction (2 credits)
- MUS 3300 Piano Accompanying (2 credits)
- MUS 3400 Vocal Pedagogy (1 credit)
- MUS 3607 Music Education II: Elementary Methods (3 credits)
- MUS 3638 Choral Conducting (2 credits)
- MUS 4607 Music Education III: Secondary Methods (2 credits)
- MUS 4811 Choral Notation and Arranging (1 credit)
- MUS 4812 Choral Studies (2 credits)

REQUIRED MAJOR APPLIED AREA
NOTE: All music majors are required to register for applied area lessons until the Degree Recital is passed.

COMPLETE THE FOLLOWING COURSE:

- MUS 2138 Voice, Level II (1 credit)

COMPLETE THE FOLLOWING COURSE:

- MUS 3138 Voice, Level III (1 credit)

REQUIRED VOCAL PERFORMING ORGANIZATIONS
NOTE: All music majors are required to participate in a major ensemble every semester they are enrolled. MUS 4800 and 4810 are by audition only.

Select 6 semester credits from the following courses:

- MUS 3800 Varsity Singers (1-2 credits)
- MUS 4800 Bemidji Choir (1-2 credits)
- MUS 4810 Chamber Singers (1-2 credits)

## Music Education, B.S. *major*
## Instrumental/classroom K-12 Specialization (Teacher Licensure)

Required Credits: 93
Required GPA: 2.50

**I REQUIRED MUSIC CORE COURSES**

COMPLETE THE FOLLOWING COURSE (REQUIRED 7 TIMES):

- MUS 1800 Performance Laboratory (0 credit)

COMPLETE THE FOLLOWING COURSES:
(Completion of these courses with a grade of "C" or better is required for all music degrees.)

- MUS 2110 World Music (2 credits)
- MUS 2201 Music Theory and Musicianship I (5 credits)
- MUS 2202 Music Theory and Musicianship II (5 credits)
- MUS 3201 Music Theory and Musicianship III (5 credits)
- MUS 3202 Music Theory and Musicianship IV (4 credits)
- MUS 3501 Music Technology I (2 credits)
- MUS 3618 Conducting Fundamentals (2 credits)
- MUS 3801 History and Literature of Music I (3 credits)
- MUS 3802 History and Literature of Music II (3 credits)

COMPLETE THE FOLLOWING COURSES:

- MUS 2310 Piano Proficiency (0 credit)
- MUS 3898 Degree Recital (0 credit)

**REQUIRED PROFESSIONAL EDUCATION COURSES**

COMPLETE THE FOLLOWING COURSES:

- ED 3100 Introduction to the Foundations of Public School Education (3 credits)
- ED 3110 Educational Psychology (3 credits)
- ED 3140 Human Relations In Education (3 credits)
- ED 3350 Pedagogy: Planning for Instruction (3 credits)
- ED 3780 Adaptation and Management: Designing the Learning Environment (3 credits)
- ED 4737 Content Area Reading (3 credits)
- ED 4799 The Professional Teacher (1 credit)
- HLTH 3400 Health and Drugs in Society (2 credits)

Complete 12 credits of student teaching:

- ED 4830 Student Teaching - Secondary (1-12 credits)

**INSTRUMENTAL AND CLASSROOM MUSIC SPECIALIZATION**

Note: All music majors are required to register for applied area lessons until the Degree Recital is passed.

REQUIRED CORE COURSES
COMPLETE THE FOLLOWING COURSES:

- MUS 1138 Introduction to Voice (1 credit)
- MUS 1348 String Methods (1 credit)
- MUS 1368 High Brass Methods (1 credit)
- MUS 1369 Low Brass Methods (1 credit)
- MUS 1378 Percussion Methods (1 credit)
- MUS 1388 Single Reeds Methods (1 credit)
- MUS 1389 Double Reeds/Flute Methods (1 credit)
- MUS 2607 Music Education I: Introduction (2 credits)
- MUS 3100 Jazz Improvisation (1 credit)
- MUS 3607 Music Education II: Elementary Methods (3 credits)
- MUS 3628 Instrumental Conducting (2 credits)
- MUS 4100 Instrumental Arranging (1 credit)
- MUS 4607 Music Education III: Secondary Methods (2 credits)
- MUS 4737 Instrumental Studies (3 credits)

REQUIRED MAJOR APPLIED AREA - MAJOR INSTRUMENT

SELECT 1 SEMESTER CREDIT AT THE 2000 LEVEL
(NUMBERED 2x48, 2x58, 2x68, 2x78) IN ONE OF
THE FOLLOWING, DEPENDING ON MAJOR INSTRUMENT: STRINGS
WOODWINDS, BRASS, OR PERCUSSION.

REQUIRED MAJOR APPLIED AREA - MAJOR INSTRUMENT

SELECT 1 SEMESTER CREDIT AT THE 3000 LEVEL
(NUMBERED 3x48, 3x58, 3x68, 3x78) IN ONE OF THE
FOLLOWING, DEPENDING ON MAJOR INSTRUMENT: STRINGS,
WOODWINDS, BRASS, OR PERCUSSION.

REQUIRED INSTRUMENTAL PERFORMING ORGANIZATIONS
SELECT 6 CREDITS FROM THE FOLLOWING COURSES:

Note: All music majors are required to participate in a major ensemble every semester they are enrolled.
MUS 4500 and MUS 4710 are by audition only.
Note: Students must be enrolled in MUS 4700, MUS 4703, MUS 4706, or MUS 4707 for at least one semester.

- MUS 4500 Bemidji Symphony Orchestra (1-2 credits)
- MUS 4610 Jazz Band (1-2 credits)
- MUS 4700 Instrumental Ensembles (1 credit)
- MUS 4710 Wind Ensemble (1-2 credits)

## Physical Education, B.S. *major* (Teacher Licensure)

Required Credits: 80
Required GPA: 2.50

**I REQUIRED COURSES**

SELECT 1 OF THE FOLLOWING COURSES:

- BIOL 1110 Human Biology (4 credits)
- BIOL 1211 Introductory Biology I (4 credits)

COMPLETE THE FOLLOWING COURSES:

- BIOL 2110 Human Anatomy and Physiology (5 credits)
- HLTH 2100 First Aid and CPR/AED (1 credit)
- PHED 2100 Foundations of Physical Education, Exercise Science, and Sport (3 credits)
- PHED 3100 Motor Development (2 credits)
- PHED 3110 Motor Learning (2 credits)
- PHED 3120 Psychology of Sport (2 credits)
- PHED 3200 Introduction to Sport Biomechanics (3 credits)
- PHED 3300 Physiology of Exercise and Nutrition (3 credits)
- PHED 3449 Socio-Culture and Ethical Issues in Sport (3 credits)
- PHED 3504 Teaching Rhythms and Dance (2 credits)
- PHED 3505 Teaching Elementary Physical Education (2 credits)
- PHED 3604 Teaching Team Sports (2 credits)
- PHED 3605 Teaching Individual Sports (2 credits)
- PHED 3607 Teaching Fitness (2 credits)
- PHED 4400 Curriculum and Assessment in Physical Education (3 credits)
- PHED 4500 Inclusive Physical Education (3 credits)

COMPLETE THE FOLLOWING COURSE:

- PHED 4920 DGS: (1 credit)

COMPLETE THE FOLLOWING COURSE for 1 credit:

- PHED 4970 Internship (1-12 credits)

**II REQUIRED AQUATICS ELECTIVES**

SELECT 1 OF THE FOLLOWING COURSES:

- PHED 1116 Advanced Swimming (1 credit)
- PHED 2630 Lifeguard Training (3 credits)
- PHED 2640 Water Safety Instructor (3 credits)

**REQUIRED PROFESSIONAL EDUCATION COURSES**

COMPLETE THE FOLLOWING COURSES:

- ED 3100 Introduction to the Foundations of Public School Education (3 credits)
- ED 3110 Educational Psychology (3 credits)
- ED 3140 Human Relations In Education (3 credits)
- ED 3350 Pedagogy: Planning for Instruction (3 credits)
- ED 3780 Adaptation and Management: Designing the Learning Environment (3 credits)
- ED 4737 Content Area Reading (3 credits)
- ED 4799 The Professional Teacher (1 credit)
- HLTH 3400 Health and Drugs in Society (2 credits)

Complete 12 credits of student teaching:

- ED 4830 Student Teaching - Secondary (1-12 credits)

**SUGGESTED SEMESTER SCHEDULE FOR PHYSICAL EDUCATION MAJOR, B.S. (TEACHER LICENSURE)**

Students are encouraged to take the required Physical Education, B.S. courses in approximate numerical order. This schedule is intended to help students plan their courses in an orderly fashion; however, these are only suggestions. Students are encouraged to consult the course descriptions for prerequisites.

Freshman

- BIOL 1110 Human Biology (4 credits)
- PHED 2100 Foundations of Physical Education, Exercise Science, and Sport (3 credits)
- Liberal Education requirements

Sophomore

- BIOL 2110 Human Anatomy and Physiology (5 credits)
- HLTH 2100 First Aid and CPR/AED (1 credit)
- PHED 3100 Motor Development (2 credits)
- PHED 3110 Motor Learning (2 credits)
- PHED 3120 Psychology of Sport (2 credits)
- PHED 3200 Introduction to Sport Biomechanics (3 credits)
- PHED 3300 Physiology of Exercise and Nutrition (3 credits)
- Required Electives in Major
- Liberal Education requirements
- Take the Pre-professional Skills Test

Junior

- Begin Professional Education Courses
- PHED 3449 Socio-Culture and Ethical Issues in Sport (3 credits)
- PHED 3504 Teaching Rhythms and Dance (2 credits)
- PHED 3505 Teaching Elementary Physical Education (2 credits)
- PHED 3604 Teaching Team Sports (2 credits)
- PHED 3605 Teaching Individual Sports (2 credits)
- PHED 3607 Teaching Fitness (2 credits)
- Required Electives in Major
- Liberal Education requirements

Senior

- PHED 4400 Curriculum and Assessment in Physical Education (3 credits)
- PHED 4500 Inclusive Physical Education (3 credits)
- PHED 4920 DGS: (1 credit)
- PHED 4970 Internship (1-12 credits)
- Complete Professional Education Courses including student teaching

## Science Education, B.S. *major*
## Physics Specialty (Teacher Licensure)

Required Credits: 83
Required GPA: 2.50

**Core Courses for Science Teaching in Grades 5-8**

COMPLETE THE FOLLOWING COURSES:

- BIOL 1211 Introductory Biology I (4 credits)
  *or* BIOL 1110 Human Biology (4 credits)
- BIOL 1212 Introductory Biology II (4 credits)
  *or* BIOL 1120 General Biology: Evolution And Ecology (3 credits)
- CHEM 2211 Principles of Chemistry I (4 credits)
  *or* CHEM 1111 General Chemistry I (4 credits)
- CHEM 2212 Principles of Chemistry II (4 credits)
  *or* CHEM 1112 General Chemistry II (4 credits)
- GEOL 1110 Physical Geology (4 credits)
- SCI 3100 Integrative Science for Teachers (4 credits)
- SCI 3450 Science Methods For Grades 5-8 (4 credits)
  *or* ED 3410 Middle School Science Methods (4 credits)

**REQUIRED PROFESSIONAL EDUCATION COURSES**

COMPLETE THE FOLLOWING COURSES:

- ED 3100 Introduction to the Foundations of Public School Education (3 credits)
- ED 3110 Educational Psychology (3 credits)
- ED 3140 Human Relations In Education (3 credits)
- ED 3350 Pedagogy: Planning for Instruction (3 credits)
- ED 3780 Adaptation and Management: Designing the Learning Environment (3 credits)
- ED 4737 Content Area Reading (3 credits)
- ED 4799 The Professional Teacher (1 credit)
- HLTH 3400 Health and Drugs in Society (2 credits)

Complete 12 credits of student teaching:

- ED 4830 Student Teaching - Secondary (1-12 credits)

**PHYSICS SPECIALTY**

COMPLETE THE FOLLOWING COURSES:

MATH 2471 is recommended (required for PHYS 2101)

- PHYS 2101 Physics I (5 credits)
  *or* PHYS 1101 General Physics I (4 credits)
- PHYS 2102 Physics II (5 credits)
  *or* PHYS 1102 General Physics II (4 credits)
- PHYS 2500 Electronics I (4 credits)
- PHYS 3600 Modern Physics (4 credits)
- PHYS 4580 Optics (4 credits)

COMPLETE THE FOLLOWING COURSE:

- PHYS 4980 Research (3 credits)

## Science Education, B.S. *major*
## Life Science Specialty (Teacher Licensure)

Required Credits: 83
Required GPA: 2.50

**Core Courses for Science Teaching in Grades 5-8**

COMPLETE THE FOLLOWING COURSES:

- BIOL 1211 Introductory Biology I (4 credits)
  *or* BIOL 1110 Human Biology (4 credits)
- BIOL 1212 Introductory Biology II (4 credits)
  *or* BIOL 1120 General Biology: Evolution And Ecology (3 credits)
- CHEM 2211 Principles of Chemistry I (4 credits)
  *or* CHEM 1111 General Chemistry I (4 credits)
- CHEM 2212 Principles of Chemistry II (4 credits)
  *or* CHEM 1112 General Chemistry II (4 credits)
- GEOL 1110 Physical Geology (4 credits)
- SCI 3100 Integrative Science for Teachers (4 credits)
- SCI 3450 Science Methods For Grades 5-8 (4 credits)
  *or* ED 3410 Middle School Science Methods (4 credits)

**REQUIRED PROFESSIONAL EDUCATION COURSES**

COMPLETE THE FOLLOWING COURSES:

- ED 3100 Introduction to the Foundations of Public School Education (3 credits)
- ED 3110 Educational Psychology (3 credits)
- ED 3140 Human Relations In Education (3 credits)
- ED 3350 Pedagogy: Planning for Instruction (3 credits)
- ED 3780 Adaptation and Management: Designing the Learning Environment (3 credits)
- ED 4737 Content Area Reading (3 credits)
- ED 4799 The Professional Teacher (1 credit)
- HLTH 3400 Health and Drugs in Society (2 credits)

Complete 12 credits of student teaching:

- ED 4830 Student Teaching - Secondary (1-12 credits)

**LIFE SCIENCE SPECIALTY**

A. REQUIRED BIOLOGY COURSES
COMPLETE THE FOLLOWING COURSES:

- BIOL 2360 Genetics (4 credits)
- BIOL 2610 General Ecology (3 credits)
- BIOL 2620 Field and Laboratory Projects in Ecological Research (2 credits)
- BIOL 3710 Microbiology (4 credits)
- BIOL 4620 Evolution (3 credits)
- BIOL 3720 Plant Form and Function (4 credits)
  *or* BIOL 3830 Aquatic Plants (4 credits)

B. REQUIRED BIOLOGY ELECTIVE
SELECT 1 OF THE FOLLOWING COURSES:

- BIOL 3150 Animal Behavior (3 credits)
- BIOL 3310 Entomology (4 credits)
- BIOL 4510 Ornithology (4 credits)
- BIOL 4520 Mammalogy (4 credits)
- BIOL 4534 Ichthyology (4 credits)

**SUGGESTED SEMESTER SCHEDULE FOR LIFE SCIENCE SPECIALTY, SCIENCE EDUCATION MAJOR, B.S. (TEACHER LICENSURE)**

The following is a list of required Science (Life Science) Major, B.S. courses arranged by year. This schedule is intended to assist students in planning their courses. There is some flexibility in this schedule, but graduation within four years will require close adherence to the specified sequence of courses. Always consult your Biology academic advisor as to the proper courses and sequence of courses needed for graduation. It is possible, in some circumstances, that courses in a student's Liberal Education program may be used in his or her academic major.

Freshman

- BIOL 1211 Introductory Biology I (4 credits)
- BIOL 1212 Introductory Biology II (4 credits)
- CHEM 2211 Principles of Chemistry I (4 credits)
- Liberal Education requirements

Sophomore

- BIOL 2360 Genetics (4 credits)
- BIOL 2610 General Ecology (3 credits)
- BIOL 2620 Field and Laboratory Projects in Ecological Research (2 credits)
- BIOL 3720 Plant Form and Function (4 credits)
- GEOL 1110 Physical Geology (4 credits)
- PHYS 1101 General Physics I (4 credits)
  *or* PHYS 2101 Physics I (5 credits)
- Consider starting Professional Education sequence
- Liberal Education requirements

Junior

- BIOL 3710 Microbiology (4 credits)
- SCI 3100 Integrative Science for Teachers (4 credits)
- SCI 3450 Science Methods For Grades 5-8 (4 credits)
- Other Professional Education requirements
- Liberal Education requirements

Senior

- Biology Elective (BIOL 3150, 3310, 3510, 4520, or 4534)
- BIOL 4620 Evolution (3 credits)
- Complete Professional Education requirements, including one semester of student teaching
- Complete liberal education requirements

## Science Education, B.S. *major*
## Earth and Space Science Specialty (Teacher Licensure)

Required Credits: 86
Required GPA: 2.50

**Core Courses for Science Teaching in Grades 5-8**

COMPLETE THE FOLLOWING COURSES:

- BIOL 1211 Introductory Biology I (4 credits)
  *or* BIOL 1110 Human Biology (4 credits)
- BIOL 1212 Introductory Biology II (4 credits)
  *or* BIOL 1120 General Biology: Evolution And Ecology (3 credits)
- CHEM 2211 Principles of Chemistry I (4 credits)
  *or* CHEM 1111 General Chemistry I (4 credits)
- CHEM 2212 Principles of Chemistry II (4 credits)
  *or* CHEM 1112 General Chemistry II (4 credits)
- GEOL 1110 Physical Geology (4 credits)
- SCI 3100 Integrative Science for Teachers (4 credits)
- SCI 3450 Science Methods For Grades 5-8 (4 credits)
  *or* ED 3410 Middle School Science Methods (4 credits)

**REQUIRED PROFESSIONAL EDUCATION COURSES**

COMPLETE THE FOLLOWING COURSES:

- ED 3100 Introduction to the Foundations of Public School Education (3 credits)
- ED 3110 Educational Psychology (3 credits)
- ED 3140 Human Relations In Education (3 credits)
- ED 3350 Pedagogy: Planning for Instruction (3 credits)
- ED 3780 Adaptation and Management: Designing the Learning Environment (3 credits)
- ED 4737 Content Area Reading (3 credits)
- ED 4799 The Professional Teacher (1 credit)
- HLTH 3400 Health and Drugs in Society (2 credits)

Complete 12 credits of student teaching:

- ED 4830 Student Teaching - Secondary (1-12 credits)

**EARTH AND SPACE SCIENCE SPECIALTY**

COMPLETE THE FOLLOWING COURSES:

- ENVR 2000 Introduction to Environmental Science (3 credits)
- GEOL 1120 Historical Geology (4 credits)
- GEOL 2110 Mineralogy and Petrology (4 credits)
- GEOL 3500 Topics in Paleontology (3 credits)
- GEOL 3600 Stratigraphy and Sedimentation (3 credits)
- SCI 2100 Astronomy (3 credits)

SELECT 1 OF THE FOLLOWING COURSES:

- GEOL 3211 Environmental Hydrology (3 credits)
- ENVR 4050 Geochemistry (3 credits)

SELECT 1 OF THE FOLLOWING COURSES:

- GEOL 4970 Internship (3 credits)
- GEOL 4980 Research (3 credits)

## Science Education, B.S. *major*
## Chemistry Specialty (Teacher Licensure)

Required Credits: 78
Required GPA: 2.50

**Core Courses for Science Teaching in Grades 5-8**

COMPLETE THE FOLLOWING COURSES:

- BIOL 1211 Introductory Biology I (4 credits)
  *or* BIOL 1110 Human Biology (4 credits)
- BIOL 1212 Introductory Biology II (4 credits)
  *or* BIOL 1120 General Biology: Evolution And Ecology (3 credits)
- CHEM 2211 Principles of Chemistry I (4 credits)
  *or* CHEM 1111 General Chemistry I (4 credits)
- CHEM 2212 Principles of Chemistry II (4 credits)
  *or* CHEM 1112 General Chemistry II (4 credits)
- GEOL 1110 Physical Geology (4 credits)
- SCI 3100 Integrative Science for Teachers (4 credits)
- SCI 3450 Science Methods For Grades 5-8 (4 credits)
  *or* ED 3410 Middle School Science Methods (4 credits)

**REQUIRED PROFESSIONAL EDUCATION COURSES**

COMPLETE THE FOLLOWING COURSES:

- ED 3100 Introduction to the Foundations of Public School Education (3 credits)
- ED 3110 Educational Psychology (3 credits)
- ED 3140 Human Relations In Education (3 credits)
- ED 3350 Pedagogy: Planning for Instruction (3 credits)
- ED 3780 Adaptation and Management: Designing the Learning Environment (3 credits)
- ED 4737 Content Area Reading (3 credits)
- ED 4799 The Professional Teacher (1 credit)
- HLTH 3400 Health and Drugs in Society (2 credits)

Complete 12 credits of student teaching:

- ED 4830 Student Teaching - Secondary (1-12 credits)

**CHEMISTRY SPECIALTY**

COMPLETE THE FOLLOWING COURSES:

- CHEM 3110 Laboratory Management and Safety (2 credits)
- CHEM 3311 Organic Chemistry I (3 credits)
- CHEM 3312 Organic Chemistry II (3 credits)
- CHEM 3371 Organic Chemistry Laboratory I (1 credit)
- CHEM 3372 Organic Chemistry Laboratory II (1 credit)
- CHEM 3507 Analytical Chemistry (3 credits)
- CHEM 3570 Analytical Chemistry Laboratory (1 credit)
- CHEM 3980 Research (1 credit)

SELECT 1 OF THE FOLLOWING COURSES:

- CHEM 4411 Biochemistry I (3 credits)
- CHEM 4811 Advanced Inorganic Chemistry I (3 credits)

## Social Studies Education, B.S. *major* (Teacher Licensure)

Required Credits: 86
Required GPA: 2.50

**Note:** Students must have a minimum overall 2.50 GPA in the major. No grade below a "C" may be used to meet program requirements. A minimum of 22 of the 53 Social Studies program credits must be completed at BSU.

**I ECONOMICS COURSES**

COMPLETE THE FOLLOWING COURSES:

- ECON 2000 Markets and Resource Allocation (3 credits)
- ECON 2100 Macroeconomics and the Business Cycle (3 credits)

**II GEOGRAPHY COURSES**

COMPLETE THE FOLLOWING COURSES:

- GEOG 2100 Introduction to Physical Geography (3 credits)
- GEOG 2200 Introduction to Human Geography (3 credits)
- GEOG 3410 Geography of North America (3 credits)

**III HISTORY COURSES**

COMPLETE THE FOLLOWING COURSES:

- HST 1114 United States History I, to 1877 (3 credits)
- HST 1115 United States History II, since 1877 (3 credits)
- HST 1304 World History I, Prehistory-1500 (3 credits)
- HST 1305 World History II, 1500-Present (3 credits)
- HST 2610 Minnesota History (3 credits)

**IV POLITICAL SCIENCE COURSES**

COMPLETE THE FOLLOWING COURSES

- POL 1200 Introduction to American Politics (3 credits)
- POL 1300 Introduction to International Relations (3 credits)

SELECT 1 OF THE FOLLOWING COURSES (3 CREDITS MINIMUM):

- POL 3100 American Foreign Policy (3 credits)
- POL 3130 Asian Political Development (3 credits)
- POL 3140 Canadian Politics (3 credits)
- POL 3150 Topics in Political Science (1-3 credits)
- POL 3160 Comparative European Politics (3 credits)
- POL 3170 International Relations (3 credits)
- POL 3180 International Law and Organization (3 credits)
- POL 3190 International Political Economy (3 credits)
- POL 3200 Minnesota Politics (3 credits)
- POL 3210 Public Administration (3 credits)
- POL 3230 Environmental Politics (3 credits)
- POL 3410 Legislative and Executive Relations (3 credits)
- POL 3420 Campaigns and Elections (3 credits)
- POL 4200 Constitutional Law (3 credits)

**V PSYCHOLOGY COURSE**

COMPLETE THE FOLLOWING COURSE:

- PSY 1100 Introductory Psychology (4 credits)

**VI SOCIOLOGY COURSES**

COMPLETE THE FOLLOWING COURSES:

- SOC 1104 Society and Social Issues (3 credits)
- SOC 3010 Social Theory (3 credits)
  *or* SOC 3050 Environmental Sociology (3 credits)

**VII SOCIAL STUDIES METHODS COURSE**

COMPLETE THE FOLLOWING COURSE:

- GEOG 3460 Teaching of Middle and Secondary School Social Studies (4 credits)

**REQUIRED PROFESSIONAL EDUCATION COURSES**

COMPLETE THE FOLLOWING COURSES:

- ED 3100 Introduction to the Foundations of Public School Education (3 credits)
- ED 3110 Educational Psychology (3 credits)
- ED 3140 Human Relations In Education (3 credits)
- ED 3350 Pedagogy: Planning for Instruction (3 credits)
- ED 3780 Adaptation and Management: Designing the Learning Environment (3 credits)
- ED 4737 Content Area Reading (3 credits)
- ED 4799 The Professional Teacher (1 credit)
- HLTH 3400 Health and Drugs in Society (2 credits)

Complete 12 credits of student teaching:

- ED 4830 Student Teaching - Secondary (1-12 credits)

## Spanish Education, B.S. *major* (Teacher Licensure)

*****Students are no longer being accepted to this program Please contact the Education or Modern Language Department for additional information.*****

Required Credits: 64
Required GPA: 2.50

**I REQUIRED CORE COURSES**

COMPLETE THE FOLLOWING COURSES:

- ML 3470 Methods Of Teaching Modern Languages (4 credits)
- ML 3430 Linguistics (3 credits)
- SPAN 3311 Composition and Conversation (3 credits)
- SPAN 3312 Advanced Readings and Conversation (3 credits)
- SPAN 4430 Spanish Grammar and Linguistics (1 credit)

SELECT 11 SEMESTER CREDITS FROM SPANISH COURSES

NUMBERED 3300 OR ABOVE:

**II REQUIRED ELECTIVES**

SELECT 6 SEMESTER CREDITS WITH CONSENT OF ADVISOR

**REQUIRED PROFESSIONAL EDUCATION COURSES**

COMPLETE THE FOLLOWING COURSES:

- ED 3100 Introduction to the Foundations of Public School Education (3 credits)
- ED 3110 Educational Psychology (3 credits)
- ED 3140 Human Relations In Education (3 credits)
- ED 3350 Pedagogy: Planning for Instruction (3 credits)
- ED 3780 Adaptation and Management: Designing the Learning Environment (3 credits)
- ED 4737 Content Area Reading (3 credits)
- ED 4799 The Professional Teacher (1 credit)
- HLTH 3400 Health and Drugs in Society (2 credits)

Complete 12 credits of student teaching:

- ED 4830 Student Teaching - Secondary (1-12 credits)

## Education Courses

**ED 1111 American Sign Language 1 (3 credits)**
In this introductory course, students learn basic sign vocabulary, grammatical structure, and fingerspelling. Introduction to the Deaf community as a linguistic and cultural minority in the United States. Explores differences in hearing and Deaf cultures throughout the world. Liberal Education Goal Area 8.

**ED 1112 American Sign Language 2 (3 credits)**
In this introductory course, students continue to learn basic sign vocabulary, grammatical structure, and fingerspelling. Students deepen their knowledge of the Deaf community as a linguistic and cultural minority in the United States. Explores differences in hearing and Deaf cultures throughout the world. Prerequisite: ED 1111 or ML 1111. Liberal Education Goal Area 8.

**ED 2007 Anatomy of Hate (3 credits)**
Exploration of the mentality and culture of various hate groups, with connections between historical and contemporary events. Discussion of dissemination of sensitive material in the K-12 environment. Liberal Education Goal Area(s) 7 & 9.

**ED 2100 Child Development and Learning (3 credits)**
Child development and learning from prenatal through eight years of age. Emphasis on developmental domains and learning: physical (including health practices), cognitive, language, emotional, social (includes cultural), and creative. Assessment of development and learning. Field experiences required for child observation and assessment. Prerequisite: 2.50 GPA.

**ED 2925 People and the Environment - Education Perspective (3 credits)**
This course will survey the philosophical, historical, and ecological basis for environmental education within the context of K-12 educational institutions. Environmental issues of a local, state, federal, and global nature will be investigated. The role of pedagogy as a basis for changing societal attitudes relative to environment will be explored. Liberal Education Goal Area 10.

**ED 3000 Introduction to FasTrack (1 credit)**
This course provides a comprehensive evaluation of the professional and academic experiences of aspiring teacher candidates. Transcripts and professional data are reviewed. Once the evaluation is completed, the student will work with the instructor to create an individualized program plan that leads to teacher licensure. Students are introduced to the concept of professional reflection based on the Standards of Effective practice. Student concerns and questions are addressed as well as an introduction to D2L and online learning. Discussions around the four components of the Professional Education Conceptual Framework in the areas of environmental awareness, technology, proficiency in teaching and collaboration occur via D2L. An introduction to TaskStream and its relation to the documenting of the Standards of Effective practice is provided. The cost for reviewing transcripts is waived for candidates who enroll in this course. This course is required before taking any other courses in the FasTrack program. Prerequisite: An earned bachelor's degree.

**ED 3100 Introduction to the Foundations of Public School Education (3 credits)**
Introduction to the historical, social, and political foundations of public school education. Introduction to the roles, functions, and responsibilities of an elementary or secondary public school teacher; a practicum experience. Prerequisites: Completion of MTLE Basic Skills, 2.5 GPA, and 30 credits.

**ED 3110 Educational Psychology (3 credits)**
A study of the teaching and learning process: teaching with emphasis on planning effective instruction, management, and assessment; learning from behavioral, information processing, and constructivist views focusing on how learning is influenced by cognitive, personal, social, and moral development, and by teaching approaches, motivation, and other factors. Prerequisites: 2.50 overall GPA; Corequisite: ED 3100.

**ED 3140 Human Relations In Education (3 credits)**
Study of the causes and psychological dynamics of racism, sexism, and other forms of human oppression. Focus on building teacher/family relationships as a strategy in anti-bias teaching. Prerequisite: ED 3100 and ED 3110.

**ED 3160 Philosophy and Organization of the Middle School (2 credits)**
Specific information and skills relative to the development of a philosophy and rationale for a middle school. Emphasis on the relationship between the middle school student, the middle school teacher, and the philosophy, organization (including interdisciplinary planning, advisor/advisee plan, etc.), and program of the middle school.

**ED 3170 Education of the American Indian (3 credits)**
Survey of traditional and western models used in the education of American Indians from colonial times to the present.

**ED 3201 Language Arts I (3 credits)**
A survey of various approaches and an investigation of the multiplicity of tasks involved in the teaching of elementary school reading. Focuses on emerging literacy development as well as assessment in the early years of learning to read. Co-requisite(s): ED 3100 and ED 3110.

**ED 3202 Language Arts II (3 credits)**
Focuses on the use of children's literature in the elementary and middle schools and the role of literature in a balanced literacy program and continued language development. A balanced literacy program includes the integration of reading, writing, spelling, listening, speaking, and viewing skills meeting the needs of diverse learners. Prerequisites: ED 3201 for Elementary Education licensure candidates.

**ED 3203 Language Arts III (3 credits)**
Focuses on literacy components of the elementary and the middle school reading program. Special emphasis is given to the development of literacy skills in writing, listening, speaking, media literacy, and presenting and viewing as a part of a holistic view of language and communication. Prerequisites: ED 3202 for Elementary Education licensure candidates.

**ED 3207 Reading in the Primary Grades (3 credits)**
Methods and materials used in the teaching of reading in the primary grades with an emphasis on instructional problems methodology, and materials.

**ED 3208 Developmental Reading in Middle School (3 credits)**
Intensive study of reading in the middle school grades with an emphasis on instructional problems, methodology, and materials. Prerequisite: ED 3201.

**ED 3217 Curriculum Enrichment through Media Resources (3 credits)**
Designed to develop activities, projects, and units with a focus on the integration of the language arts throughout the elementary school curriculum. Various media resources are explored with an emphasis on technology. Prerequisite or Corequisite: ED 3201

**ED 3218 Laboratory Experiences in Reading (2 credits)**
Designed to provide students with actual teaching experiences in the area of reading. Time arranged.

**ED 3221 Elementary Math Methods (3 credits)**
Objectives, materials and methods of teaching modern mathematics. Requires visits to elementary schools. Prerequisites: ED 3100, MATH 1011 and Math 1013.

**ED 3222 Elementary Science Methods (3 credits)**
Consists of 1) a process science component covering physical, earth, and life science as related to Piagetian learning theory, and 2) an environmental education component including the philosophy, objectives, methods, and materials of environmental education. Prerequisites: ED 3100 and ED 3110.

**ED 3240 Social Studies in the Elementary School (3 credits)**
Objectives, strategies, and materials related to teaching social studies in the elementary school. Prerequisites: ED 3110, and ED 3140.

**ED 3257 Introduction to Environmental Education and Interpretation (3 credits)**
Objectives, program ideas, methods, and materials of outdoor education. General and specific techniques of implementing a program of environmental education and interpretation. Might not be offered every year.

**ED 3258 Environmental Interpretation (3 credits)**
Introduces the student to the profession of interpretation. Students gain an understanding of the principles of interpretation and their application in interpretative services in a wide variety of setting including museums, zoological gardens, industrial sites, and parks. Might not be offered every year.

**ED 3301 Creative Expressions (3 credits)**
Designed to help pre-service teacher education majors learn how to integrate literature, art, drama, dance/movement, and music throughout the curriculum by providing a basic arts knowledge base, clear reasons for integration, and specific arts integration principles. Emphasis is on teaching with, about, in, and through the arts. Prerequisites: ED 3100 and ED 3110.

**ED 3302 Creative Process Foundations: Patterns (3 credits)**
A comprehensive and holistic approach to arts education designed to provide pre-service teachers with a set of tools and strategies to teach the arts and incorporate them with other core disciplines. It provides the tools and resources to prepare teachers and students to create knowledge--emphasis on "create".

**ED 3350 Pedagogy: Planning for Instruction (3 credits)**
Introduction to the elements of designing effective instruction: learners, goals and objectives, teaching strategies, instructional technologies, and assessment, with special attention to the learners. Concepts from educational psychology and human relations are applied to the development of appropriate educational materials for diverse learners. Prerequisites: ED 3100 and ED 3110.

**ED 3410 Middle School Science Methods (4 credits)**
Introduces strategies and materials for teaching science grades 5-9. Discusses the teaching of science through a hands-on, inquiry-oriented methodology, and includes laboratory activities, class discussions, and modification of materials to address current Minnesota state standards. A field experience is required in an appropriate grade level with public school students. Prerequisite: Senior status or consent of instructor.

**ED 3417 Teaching and Learning in the Middle School (3 credits)**
Course provides comprehensive preparation for teaching in the middle school. Topics of study include young adolescent development, the family's impact on the middle school learner; middle school philosophy and content, instruction, and assessment at the middle school level. Study is given to the impact of technology on middle school teaching and learning. Course is project-focused, meaning content is organized around projects completed by students individually and in teams. Field experience is required.

**ED 3440 Mathematics Methods in the Secondary School (4 credits)**
NCTM Standards, lesson planning, Minnesota Frameworks, Graduation Rule, objectives, methods, and materials. Prerequisites: ED 3110 or consent of instructor.

**ED 3480 Methods of Teaching Industrial Technology, Vocational Education (2 credits)**
Approaches to teaching industrial technology education including philosophy, innovative approaches, classroom and laboratory strategies and methodology. Includes program visitation, evaluation and micro-teaching. Prerequisites: IT 3850, IT junior or senior status, and ED 3110.

**ED 3490 Physical Education Methods in Secondary School (1 credit)**
Methods and class organizational procedures in secondary physical education. Prerequisites: ED 3110.

**ED 3500 Young Children with Special Needs (3 credits)**
Introduction to teaching young children with special needs. Includes discussion of important aspects of education for young children in special education and mainstreamed settings. Students interrelate experiences working with young children with special needs to developing an educational philosophy. Prerequisite: ED 3110 or consent of instructor.

**ED 3508 Parent/Professional Teams in Early Childhood (3 credits)**
Emphasizes cooperative and coordinated educational programming with parents of normally and atypically developing infants, toddlers, and preschool age children. Models of early intervention and parent-teacher educational programs are presented and adapted for use with parents. First is interagency staffing patterns and cooperation among agencies and second is geographic, economic and social factors and related problems. Prerequisite: ED 3670 or ED 3500.

**ED 3601 Assistive Technology (3 credits)**
An overview of assistive technology for use by individuals with disabilities will be covered. Five types of devices will be examined and their uses discussed. They include environmental control devices simple augmentative communication devices; switches, modules, and mounting systems; computer adapted input devices; and special needs software. This course provides a format via e-mail for discussion regarding application and analysis of assistive technology devices. In addition, students will synthesize and evaluate information on disabilities and assistive technology devices found on the Internet.

**ED 3608 Mathematics for Learners with Special Needs (2 credits)**
Study of the problems that students who have learning difficulties exhibit in mathematics. Diagnostic, remedial, and instructional activities are developed. Requires an approved elementary (K-4) clinical experience. Prerequisites: ED 3221 and SPED 3600.

**ED 3670 Foundations of Early Childhood Education (3 credits)**
Social, psychological, historical, and educational foundations of kindergarten and prekindergarten programming are explored. Emphasis is placed on efforts of modern programs to adapt curriculum and instruction to the developmental levels and experience backgrounds of young children. Content will be geared toward teaching at the kindergarten and prekindergarten levels. Requires visitations at level of professional interest.

**ED 3677 Relations and Management in Early Childhood Education (3 credits)**
Study and development of skills in relations with young children, parents, and co-workers. Guidance and group management techniques are addressed for working effectively with prekindergarten and young school aged children. Experience in prekindergarten or kindergarten settings is a part of the class.

**ED 3715 Learning Experiences for Infants and Toddlers (4 credits)**
Students study and build skills in relation to developmentally appropriate and nurturing communication techniques, relationships, environments, and learning activities for infants and toddlers. Collaborative and culturally responsive relationships with families and co-workers are emphasized. Fifteen-hour field experience is required. (Might not be offered every year.)

**ED 3780 Adaptation and Management: Designing the Learning Environment (3 credits)**
Focuses on designing and managing the learning environment to meet needs for growth in all learners in affective, cognitive, psychomotor, and social domains. Theories of individual behavior, divserse learners, group dynamics, communication, behavioral interventions, and classroom management presented and applied in simulations. Research on related topics is undertaken. Prerequisites: ED 3100, ED 3110, ED 3140, and ED 3350.

**ED 4605 Infant and Toddler Student Teaching (5 credits)**
Students integrate theory and practice through working as a member of a teaching team with placement in an infant and/or toddler classroom. Students complete portfolio-based student teaching experience, focusing on selected INTASC and BOT indicators. Weekly seminars. 3 hours of lab per week per credit. Prerequisite or Corequisite: ED 3715.

**ED 4700 Developmentally Appropriate Preprimary Education (3 credits)**
Course studies developmentally appropriate curriculum and methods for young learners. The use of learning centers, thematic instruction, culturally sensitive teaching techniques, emergent literacy and numeracy, and constructivist educational theory are explored. This is the culminating seminar in early childhood programs and includes a practicum in prekindergarten or kindergarten classroom. Prerequisite: ED 3670.

**ED 4737 Content Area Reading (3 credits)**
Intensive study of content area reading issues. Assessment techniques and instructional strategies appropriate for grades four through twelve. Literacy requirements addressed include application competencies that take into account classroom experiences related to various disciplines. Prerequisites: ED 3100 and ED 3110.

**ED 4740 Methods of Using Instructional Technology (3 credits)**
Fundamentals of theory and practice in using instructional technology in teaching. Explores current and future methods of teaching with technology. Assists teachers and prospective teachers in utilizing various instructional technologies in their teaching.

**ED 4747 Curriculum Development And Instructional Technology (4 credits)**
How to modify existing curriculum to incorporate instructional technology into the educational program. Focuses on curriculum development processes that link advanced multi-media technologies to the curriculum.

**ED 4750 Family, School, Community Relations (3 credits)**
Course focuses on family involvement as essential in the successful education of the prekindergarten-12th grade learner. Study is given to family dynamics, trends in family-school relations, problems that inhibit parent involvement, and strategies for productive family involvement. Community and cultural considerations in family-school-community relations are examined. Pertinent field activities are required. Prerequisites: ED 3110, and ED 3140.

**ED 4757 Philosophy and Methods of Parent Education (3 credits)**
Historical, cultural, social, and psychological foundations in the philosophy of parent education are explored. Methods in the education of adults in the context of the family are studied. Models of parent/family education are examined. Visitations to early childhood family education programs are required. Prerequisites: ED 3500, ED 3670, and ED 3677.

**ED 4758 Teaching the Learner at Risk: An Ecological Perspective (2 credits)**
The course explores family and school factors that put the learner at risk for academic and social failure. Strategies are developed for addressing these factors, including collaborative efforts within and outside of the classroom. Prerequisite or Corequisite: ED 3110 and ED 3140.

**ED 4760 Vocal Music Consultant in the Elementary School (1 credit)**
Music resources, films, records, song literature, and community resources; demonstration and observation lessons; workshops, staff relations, purchase and maintenance of materials and equipment.

**ED 4770 Organization and Administration of Environmental Education & Interpretation (2 credits)**
The organization and administration of environmental education and interpretation experiences in varying lengths, and the acquisition, development, and maintenance of outdoor education facilities and programs. Prerequisite: ED 3257. Might not be offered every year.

**ED 4777 Field Experiences in Environmental Education and Interpretation (3 credits)**
An interdisciplinary field oriented course designed to provide the student with basic knowledge of the natural environment and its relationship to the total school curriculum. Each student will design and execute and environmental or outdoor education project related to their major field of study. Arrangements will be made to test out the activity on an appropriate group (e.g. school children, adults, etc.) Prerequisite: ED 3257. Might not be offered every year.

**ED 4799 The Professional Teacher (1 credit)**
Students study the role of the student teacher in planning for full-time teaching. Reviews classroom procedures, organization, planning, and technologies, and covers student teacher and beginning teacher procedures, general background, introduction to the classroom, teaching strategies, language, thinking, evaluation, employment (including letters of application, resume writing, and interviews), and continued professional growth. The course must be taken the semester before student teaching. Note: Elementary majors must successfully complete all methods courses prior to student teaching; secondary majors must successfully complete all methods courses and 80 percent of their content courses prior to student teaching. Prerequisites: ED 3100, ED 3110, ED 3140, ED 3350, and ED 3780; ECE majors are exempt from ED 3350 and ED 3780.

**ED 4811 Preprimary Student Teaching (3-10 credits)**
Students integrate theory and practice through working as a member of a teaching team in a prekindergarten placement. Includes application of content and methods from ED 3670 and ED 3677, as well as documentation of attainment of BOT outcomes as specified in the syllabus. Prerequisites or Corequisites: ED 3670 and ED 3677.

**ED 4817 Practicum in Young Child and Family Setting (3 credits)**
Students work in a child and family prekindergarten setting that may be in part home-based. Students assist cooperating teacher/home visitor in conduct of the program including such tasks as assessment, planning, activity implementation, parenting education, and evaluation of activity effectiveness. Requirements: Forty-five (45) clock hours of experience including weekly seminars, for each semester credit.

**ED 4818 Field Experience in Instructional Technology (4 credits)**
Students teach the use of technology equipment and software in elementary or secondary school settings and complete companion reflection activities and projects. Prerequisites: ED 4740 and ED 4747.

**ED 4820 Student Teaching - Elementary (1-16 credits)**
Full-time teaching with guidance and supervision by University supervisors and assigned school personnel. Graded Satisfactory/Unsatisfactory only. Prerequisites: ED 3100, ED 3110, ED 3140, ED 3350, ED 3780, and ED 4799.

**ED 4827 Primary Student Teaching (1-12 credits)**
Students work as a member of a teaching team in a public school primary grade classroom. Students complete portfolio-based student teaching experience, focusing on selected INTASC, BOT, and Graduation Standards outcomes. Weekly seminars. University selected and approved classroom placement. Three contact hours per week per credit, including seminar. Taken at end of Early Childhood Licensure program.

**ED 4830 Student Teaching - Secondary (1-12 credits)**
Full-time teaching with guidance and supervision by University supervisors and assigned school personnel. Graded Satisfactory/Unsatisfactory only. Prerequisites: ED 3110 and ED 4799.

**ED 4840 Student Teaching - Special Fields (1-12 credits)**
Full-time teaching with guidance and supervision by University supervisors and assigned school personnel (visual arts, business education, industrial arts education, instrumental music, vocal music, health and physical education.) Graded Satisfactory/Unsatisfactory only. Prerequisites: ED 3100, ED 3110, ED 3140, ED 3350, ED 3780, and ED 4799.

### All-University Courses

The course numbers listed below, not always included in the semester class schedule, may be registered for by consent of the advisor, instructor, or department chair, or may be assigned by the department when warranted. Individual registration requires previous arrangement by the student and the completion of any required form or planning outline as well as any prerequisites.

1910, 2910, 3910, 4910 DIRECTED INDEPENDENT STUDY
1920, 2920, 3920, 4920 DIRECTED GROUP STUDY
1930, 2930, 3930, 4930 EXPERIMENTAL COURSE
1940, 2940, 3940, 4940 IN-SERVICE COURSE
1950, 2950, 3950, 4950 WORKSHOP, INSTITUTE, TOUR
1960, 2960, 3960, 4960 SPECIAL PURPOSE INSTRUCTION
1970, 2970, 3970, 4970 INTERNSHIP
1980, 2980, 3980, 4980 RESEARCH
1990, 2990, 3990, 4990 THESIS

## Special Education Courses

**SPED 3105 Orientation to Special Education (1 credit)**
This course works in conjunction with the first four core courses offered in the Special Education Licensure Program. Field work experiences are required in each level of the program. This course is used to document the hours that the candidate has logged in at the practicum site. In addition, the teacher candidate is required to attend webinars with topics related to the field of special education. The webinars also involve the coach that the candidate has been working with at the practicum site. One purpose of this course is to increase the communication between the candidate, the coach, and the university. The special education courses provide the candidate with theory and background information necessary to be an effective educator and to meet the Special Education Standards required by the Minnesota Department of Education. The inclusion of the coach in the conversation allows the candidate to see the connection of theory to best practice in a school setting.

**SPED 3106 Professional Practice in the Elementary/Middle School Setting (1 credit)**
This course works in conjunction with the second tier of courses offered in the Special Education Licensure Program. At Tier 2, field experiences are required at the elementary and middle school level. This course is used to document the hours that the candidate has logged in at the practicum site. In addition, the teacher candidate is required to attend webinars with topics related to the field of special education. The webinars also involve the coach that the candidate has been working with at the practicum site. One purpose of this course is to increase the communication between the candidate, the coach, and the university. The special education courses provide the candidate with theory and background information necessary to be an effective educator and to meet the Special Education Standards required by the Minnesota Department of Education. The inclusion of the coach in the conversation allows the candidate to see the connection of theory to best practice in a school setting. Prerequisites: Completion of all Tier 1 courses: SPED 3105, SPED 3600, SPED 3640, SPED 3650, and SPED 4715; and ED 3201. Corequisites: Can be taken concurrently with Tier 2 courses SPED 3620, and/or SPED 3630, whichever is/are the last course(s) to be completed in Tier 2.

**SPED 3107 Professional Practice in the Secondary School Setting (2 credits)**
This course is works in conjunction with the third tier of courses offered in the Special Education Licensure Program. Field work experiences are required in each level of the program. This course is used to document the hours that the candidate has logged in at the practicum site. In addition, the teacher candidate is required to attend webinars with topics related to the field of special education. The webinars also involve the coach that the candidate has been working with at the practicum site. One purpose of this course is to increase the communication between the candidate, the coach, and the university. The special education courses provide the candidate with theory and background information necessary to be an effective educator and to meet the Special Education Standards required by the Minnesota Department of Education. The inclusion of the coach in the conversation allows the candidate to see the connection of theory to best practice in a school setting. Prerequisites: Completion of all Tier 1 courses: SPED 3105, SPED 3600, SPED 3640, SPED 3650, and SPED 4715; and Completion of all Tier 2 courses: ED 3201; SPED 3106; SPED 3620 or SPED 3630.

**SPED 3600 Study of the Learner with Special Needs (3 credits)**
A special education foundation course that provides an introductory overview of special education and the characteristics and learning needs of school-age children with exceptionalities. An approved field experience is required. This a prerequisite course for most courses required for special education licensure. It can be taken simultaneously with SPED 3650, SPED 3715, and/or ED 3201. Prerequisites: ED 3100, ED 3110, ED 3350, and passing scores on the Minnesota Teacher Licensure Exam (MTLE) Basic Skills Test.

**SPED 3620 Teaching the Learner with Specific Learning Disabilities I (3 credits)**
An introduction to the field of learning disabilities. It is a study of learners whose special learning problems inhibit their ability to meet academic performance standards and developmental expectations for their age. Emphasizes historical foundations, current education definitions of learning deficits, federal and Minnesota eligibility criteria for services, etiology of learning disabilities, relationship between learning disabilities and other associated conditions, impact of information processing deficits on children with learning disabilities, and social or emotional aspects of children and youth with learning disabilities. An applied experience is required and includes an approved elementary (K-6) clinical. Prerequisites: SPED 3105, SPED 3600, SPED 3640, SPED 3650, and SPED 4715 (all Tier 1 courses).

**SPED 3630 Teaching the Learner with Emotional Behavioral Disorders I (3 credits)**
Introduction to the characteristics and needs of students with emotional and behavioral disorders within the context of school, family, and community settings. Students are helped to understand key concepts through participation in an approved elementary (K-6) special education clinical experience. Prerequisite: SPED 3105, SPED 3600, SPED 3640, SPED 3650, and SPED 4715 (all Tier 1 courses).

**SPED 3650 Collaborative Techniques for Special Educators (3 credits)**
A study of techniques when collaborating with parents, caregivers, community services, and other support services to enhance the learning of the learner with special needs, within an academic setting. An approved clinical experience includes a parent interview, woring with outside agencies such as social services, medical facilities, parent advocacy, and service providers from outside the school district, and transition service agencies. Prerequisites or Corequisites: SPED 3600, SPED 3640, and SPED 4715.

**SPED 3655 Due Process in Special Education I: Individual Education Plan (3 credits)**
This course focuses on a formal set of policies and procedures to be implemented by schools and districts for children in special education programs. It concentrates on the creation of compliant Individualized Education Plans (IEP) to meet the academic and/or emotional and behavioral needs of the students receiving special education services. Prior Written Notices for IEPs and Functional Behavioral Assessments are reviewed. Prerequisites: SPED 3600.

**SPED 3660 Autism Spectrum Disorders: Mild to Moderate Disabilities (3 credits)**
This course presents a whole-person perspective of individuals with high-functioning Spectrum, also known as essential autism, which surveys research-based approaches to teaching: biological and neurological information necessary for assessment, genetic research, legislation, and the CEC Code of Ethics. The course material contains material that covers birth through the age of 21 due to the changes that occur over time with individuals with mild to moderate autism spectrum disorder (ASD). This course requires 40 hours of field experiences; with 20 hours field experiences being dedicated to students ranging from birth to Pre-Kindergarten and 20 hours of field experiences being dedicated to Kindergarten through grade 6. Prerequisites: SPED 3600, SPED 3650, or consent of instructor.

**SPED 3665 Autism Spectrum Disorders: Social Skills Training (3 credits)**
This course presents advanced social skills and communications perspective of the standards presented in SPED 3/5660 as well as a whole-person perspective of individuals on the Autism Spectrum; the need for social skills training from a communicative stance, a psycho-social stance, and a transition stance throughout life, while observing the CEC Code of Ethics. The course contains instruction from birth to the age of 21. This course requires 40 hours of field experiences with individuals on the Autism Spectrum from 5th grade to 8th grade. Prerequisites: SPED 3600, SPED 3650, or consent of instructor.

**SPED 4715 Curriculum Techniques with Special Populations (3 credits)**
Students learn to design curricular interventions in academic and socio-emotional arenas and techniques for accommodating diverse learners within regular education settings. Requires an approved clinical experience developing an Individual Application Project in collaboration with a mainstream teacher. Prerequisite or Corequisite: SPED 3600 or consent of the instructor.

## All-University Courses

The course numbers listed below, not always included in the semester class schedule, may be registered for by consent of the advisor, instructor, or department chair, or may be assigned by the department when warranted. Individual registration requires previous arrangement by the student and the completion of any required form or planning outline as well as any prerequisites.

1910, 2910, 3910, 4910 DIRECTED INDEPENDENT STUDY
1920, 2920, 3920, 4920 DIRECTED GROUP STUDY
1930, 2930, 3930, 4930 EXPERIMENTAL COURSE
1940, 2940, 3940, 4940 IN-SERVICE COURSE
1950, 2950, 3950, 4950 WORKSHOP, INSTITUTE, TOUR
1960, 2960, 3960, 4960 SPECIAL PURPOSE INSTRUCTION
1970, 2970, 3970, 4970 INTERNSHIP
1980, 2980, 3980, 4980 RESEARCH
1990, 2990, 3990, 4990 THESIS

# Psychology

Psychology is the science of behavior, cognition, and affect. All psychology is grounded in research that ultimately seeks to understand the actions, thoughts, and emotions of people. Applied psychology is designed to provide practical solutions to human problems.

The Psychology major emphasizes psychology as an applied and scientific discipline. Students majoring in Psychology receive particular preparation for graduate study in the field and broad preparation for employment in the human services and a wide range of positions requiring a college degree.

Advanced degrees are required for the following representative careers: child psychologist, clinical psychologist, college professor, experimental psychologist, industrial psychologist, rehabilitation counselor, school psychologist, and secondary school counselor.

**Programs**

- Psychology, B.A. *major*
- Psychology, B.A. *major*
- Psychology, B.A. *major*
- Psychology, B.S. *major*
- Social Studies, B.A. (Psychology Emphasis)*major*
- Psychology *minor*

**Career Directions**

Adolescent Counselor
Agency Administrator
Career Counselor
Case Worker
Chemical Dependency Counselor
Corrections Worker
Crisis Counselor
Data Analyst
Day Care Teacher
Early Childhood Family Education Specialist
Gerontology Specialist
Group Facilitator
Head Start Worker
Human Resources Specialist
In-Home Family Counselor
Juvenile Treatment Specialist
Law
Medicine
Probation Officer
Psychiatric Aide
Sexual Assault Advocate
Special Education Worker
Specialized Career Directions/Applied Psychology
Specialized Career Directions/Psychology
Also: Graduate Training/Professional Psychology

**Preparation**

*Recommended High School Courses*

Biology
English
Mathematics
Social Science

## Psychology, B.A. *major*

Required Credits: 49
Required GPA: 2.25

**I REQUIRED COURSES**

COMPLETE THE FOLLOWING COURSES:

- PSY 1100 Introductory Psychology (4 credits)
- PSY 2217 Abnormal Psychology (4 credits)
- PSY 2227 Learning and Cognition (4 credits)
- PSY 3237 Lifespan Development (4 credits)
- PSY 3401 Basic Statistics for Research (4 credits)
- PSY 3402 Research Methods (4 credits)

**REQUIRED ELECTIVES**

SET 1: 4000-LEVEL ELECTIVES
Select a minimum of 9 credits of Psychology courses at the 4000 level. These credits may include a maximum of 3 credits from Research Lab (PSY 4447). Credits from Pre-Internship Seminar (PSY 4870) and Internship in Psychology (PSY 4970) may not be included.

**REQUIRED ELECTIVES**

SET 2: GENERAL ELECTIVES
Select a minimum of 16 additional credits of Psychology courses at any level. These credits may include Pre-Internship Seminar (PSY 4870) and up to 6 credits of Internship in Psychology (PSY 4970). Additional credits from Research Lab (PSY 4447) may also be included. An overall maximum of 6 credits from Research Lab can be used to fulfill the 25 elective credit requirement of the major (Set 1 and Set 2).
In consultation with their advisor, students may include up to 4 credits from one of the following courses from outside the department.

- BIOL 1110 Human Biology (4 credits)
- BIOL 1211 Introductory Biology I (4 credits)
- BIOL 3150 Animal Behavior (3 credits)
- INST 1107 Introduction to Turtle Island (3 credits)
- INST 2202 Survivance Since Contact (3 credits)
- PHIL 2220 Ethics (3 credits)
- PHIL 2230 Logic (3 credits)
- SOWK 2030 Chemical Dependency Theories and Assessment (3 credits)
- SOWK 3030 Family Violence (3 credits)
- SOWK 3830 Gerontology: Social Work Perspectives (2 credits)

- SOC 2230 Race and Ethnic Relations (3 credits)
- WSGS 2220 Women's Issues (3 credits)
- PSY 4447 Research Laboratory (1-4 credits)
- PSY 4970 Psychology Senior Internship (6-12 credits)

**SUGGESTED SEMESTER SCHEDULE FOR PSYCHOLOGY MAJOR, B.A. OR B.S.**

Freshman

- PSY 1100 Introductory Psychology (4 credits)
- Liberal Education Math requirement
- Other Liberal Education requirements

Sophomore

- PSY 2217 Abnormal Psychology (4 credits)
- PSY 2227 Learning and Cognition (4 credits)
- PSY 3237 Lifespan Development (4 credits)
- Liberal Education requirements

Junior

- PSY 3401 Basic Statistics for Research (4 credits)
- PSY 3402 Research Methods (4 credits)
- Psychology general electives
- Liberal Education requirements

Senior

- Psychology 4000-level electives

## Psychology, B.A. *major*

Required Credits: 49
Required GPA: 2.25

**I REQUIRED COURSES**

COMPLETE THE FOLLOWING COURSES:

- PSY 1100 Introductory Psychology (4 credits)
- PSY 2217 Abnormal Psychology (4 credits)
- PSY 2227 Learning and Cognition (4 credits)
- PSY 3237 Lifespan Development (4 credits)
- PSY 3401 Basic Statistics for Research (4 credits)
- PSY 3402 Research Methods (4 credits)
- PSY 4588 Multicultural Psychology (3 credits)

GROUP 2: 4000 - LEVEL ELECTIVES
Select a minimum of 9 credits of Psychology courses at the 4000 level. These credits may include a maximum of 3 credits from Research Lab (PSY 4447). Credits from Pre-Internship Seminar (PSY 4870) and Internship in Psychology (PSY 4970) may not be included.

**II REQUIRED ELECTIVES**

Students should choose electives in the major that best match their interests and career goals. In consultation with their advisor, students should select 21 credits of elective courses as follows.

GROUP 1: ELECTIVES

Select a minimum of 12 additional credits of Psychology courses at any level.

These credits may include Pre-Intership Seminar (PSY 4870) and up to 6 credits of Internship in Psychology (PSY 4970). Internships require senior standing, completion of all relevant coursework and consent of an advisor.

Additional credits from Research Lab may also be included. An overall maximum of 6 credits from Research Lab can be used to fulfill the 21 elective requirement of the major (Group 1 and Group 2).

General Elective credits may also include a course from outside the department of Psychology. In consultation with their advisor, students may include up to 4 credits from one of the following courses from outside the department.

- BIOL 1110 Human Biology (4 credits)
- BIOL 1211 Introductory Biology I (4 credits)
- BIOL 3150 Animal Behavior (3 credits)
- CRJS3307
- CRJS 4487 Offender Intervention (3 credits)
- GWS 2220
- HLTH 3500 Community Health (3 credits)
- INST 1107 Introduction to Turtle Island (3 credits)
- INST 2202 Survivance Since Contact (3 credits)
- PHIL 2220 Ethics (3 credits)
- PHIL 2230 Logic (3 credits)
- PHIL 3330 Nineteenth Century Philosophy (3 credits)
- SOWK 2030 Chemical Dependency Theories and Assessment (3 credits)
- SOWK 3030 Family Violence (3 credits)
- SOWK 3201 Family: Dynamics and Intervention (3 credits)
- SOC 2230 Race and Ethnic Relations (3 credits)

- PSY 4447 Research Laboratory (1-4 credits)

- PSY 4970 Psychology Senior Internship (6-12 credits)

## Psychology, B.A. *major*

Required Credits: 49
Required GPA: 2.25

**I REQUIRED COURSES**

COMPLETE THE FOLLOWING COURSES:

- PSY 1100 Introductory Psychology (4 credits)
- PSY 2217 Abnormal Psychology (4 credits)
- PSY 2227 Learning and Cognition (4 credits)
- PSY 3237 Lifespan Development (4 credits)
- PSY 3401 Basic Statistics for Research (4 credits)
- PSY 3402 Research Methods (4 credits)
- PSY 4588 Multicultural Psychology (3 credits)

GROUP 2: 4000 - LEVEL ELECTIVES
Select a minimum of 9 credits of Psychology courses at the 4000 level. These credits may include a maximum of 3 credits from Research Lab (PSY 4447). Credits from Pre-Internship Seminar (PSY 4870) and Internship in

Psychology (PSY 4970) may not be included.

**II REQUIRED ELECTIVES**

Students should choose electives in the major that best match their interests and career goals. In consultation with their advisor, students should select 21 credits of elective courses as follows.

GROUP 1: ELECTIVES
Select a minimum of 12 additional credits of Psychology courses at any level.

These credits may include Pre-Intership Seminar (PSY 4870) and up to 6 credits of Internship in Psychology (PSY 4970). Internships require senior standing, completion of all relevant coursework and consent of an advisor.

Additional credits from Research Lab may also be included. An overall maximum of 6 credits from Research Lab can be used to fulfill the 21 elective requirement of the major (Group 1 and Group 2).

General Elective credits may also include a course from outside the department of Psychology. In consultation with their advisor, students may include up to 4 credits from one of the following courses from outside the department.

- BIOL 1110 Human Biology (4 credits)
- BIOL 1211 Introductory Biology I (4 credits)
- BIOL 3150 Animal Behavior (3 credits)
- CRJS3307
- CRJS 4487 Offender Intervention (3 credits)
- GWS 2220
- HLTH 3500 Community Health (3 credits)
- INST 1107 Introduction to Turtle Island (3 credits)
- INST 2202 Survivance Since Contact (3 credits)
- PHIL 2220 Ethics (3 credits)
- PHIL 2230 Logic (3 credits)
- PHIL 3330 Nineteenth Century Philosophy (3 credits)
- SOWK 2030 Chemical Dependency Theories and Assessment (3 credits)
- SOWK 3030 Family Violence (3 credits)
- SOWK 3201 Family: Dynamics and Intervention (3 credits)
- SOC 2230 Race and Ethnic Relations (3 credits)

- PSY 4447 Research Laboratory (1-4 credits)

- PSY 4970 Psychology Senior Internship (6-12 credits)

## Psychology, B.S. *major*

Required Credits: 49
Required GPA: 2.25

**I REQUIRED COURSES**

COMPLETE THE FOLLOWING COURSES:

- PSY 1100 Introductory Psychology (4 credits)
- PSY 2217 Abnormal Psychology (4 credits)
- PSY 2227 Learning and Cognition (4 credits)
- PSY 3237 Lifespan Development (4 credits)
- PSY 3401 Basic Statistics for Research (4 credits)
- PSY 3402 Research Methods (4 credits)

**REQUIRED ELECTIVES**

SET 1: 4000-LEVEL ELECTIVES
Select a minimum of 9 credits of Psychology courses at the 4000 level. These credits may include a maximum of 3 credits from Research Lab (Psy 4447). Credits from Pre-Internship Seminar (PSY 4870) and Internship in Psychology (PSY 4970) may not be included.

**REQUIRED ELECTIVES**

SET 2: GENERAL ELECTIVES
Select a minimum of 16 additional credits of Psychology courses at any level. These credits may include Pre-Internship Seminar (PSY 4870) and up to 6 credits of Internship in Psychology (PSY 4970). Additional credits from Research Lab (PSY 4447) may also be included. An overall maximum of 6 credits from Research Lab can be used to fulfill the 25 elective credit requirement of the major (Set 1 and Set 2).
In consultation with their advisor, students may include up to 4 credits from one of the following courses from outside the department.

- BIOL 1110 Human Biology (4 credits)
- BIOL 1211 Introductory Biology I (4 credits)
- BIOL 3150 Animal Behavior (3 credits)
- INST 1107 Introduction to Turtle Island (3 credits)
- INST 2202 Survivance Since Contact (3 credits)
- PHIL 2220 Ethics (3 credits)
- PHIL 2230 Logic (3 credits)
- PHIL3410
- SOWK 2030 Chemical Dependency Theories and Assessment (3 credits)
- SOWK 3030 Family Violence (3 credits)
- SOWK 3830 Gerontology: Social Work Perspectives (2 credits)
- SOC 2230 Race and Ethnic Relations (3 credits)
- WSGS 2220 Women's Issues (3 credits)
- PSY 4447 Research Laboratory (1-4 credits)
- PSY 4970 Psychology Senior Internship (6-12 credits)

**SUGGESTED SEMESTER SCHEDULE FOR PSYCHOLOGY MAJOR, B.A. OR B.S.**

Freshman

- PSY 1100 Introductory Psychology (4 credits)
- Liberal Education Math requirement
- Other Liberal Education requirements

Sophomore

- PSY 2217 Abnormal Psychology (4 credits)
- PSY 2227 Learning and Cognition (4 credits)
- PSY 3237 Lifespan Development (4 credits)
- Liberal Education requirements

Junior

- PSY 3401 Basic Statistics for Research (4 credits)
- PSY 3402 Research Methods (4 credits)
- Psychology general electives
- Liberal Education requirements

Senior

- Psychology 4000-level electives

## Social Studies, B.A. *major*
## Psychology Emphasis

**Note:** A minimum of 22 semester credits used to meet course requirements in I and II must be completed at Bemidji State University. No course grade below a C may be used to meet these requirements and a minimum GPA of 2.50 in this major is required for graduation. Students who desire a second field of emphasis are to consider completion a minor or a second major in that field. Such action may complement and increase the marketability of this major.

Required Credits: 48
Required GPA: 2.50

**I REQUIRED CORE CURRICULUM**

CAPSTONE COURSE
COMPLETE THE FOLLOWING COURSE:

- POL 4500 Thesis and Career Preparation (3 credits)

ECONOMICS COURSES
SELECT 1 OF THE FOLLOWING COURSES:

- ECON 2000 Markets and Resource Allocation (3 credits)
- ECON 2100 Macroeconomics and the Business Cycle (3 credits)

GEOGRAPHY COURSES
SELECT 1 OF THE FOLLOWING COURSES

- GEOG 2100 Introduction to Physical Geography (3 credits)
- GEOG 2200 Introduction to Human Geography (3 credits)

GEOGRAPHY COURSES
SELECT 1 OF THE FOLLOWING COURSES:

- GEOG 3410 Geography of North America (3 credits)
- GEOG 3800 Regional Geography (1-3 credits)
- GEOG 3810 Geography of Europe (3 credits)
- GEOG 3820 Geography of East, South, and Southeast Asia (3 credits)
- GEOG 3840 Geography of Africa (3 credits)

UPPER DIVISION WORLD HISTORY
SELECT 1 OF THE FOLLOWING COURSES

- HST 2218 Medieval Europe (3 credits)
- HST 2228 Renaissance and Reformation Europe (3 credits)
- HST 2580 Russia (3 credits)
- HST 2600 Topics in History (3 credits)
- HST 2660 Women and History (3 credits)
- HST 2700 The History of World Religions (3 credits)
- HST 2800 Reacting to the Past (3 credits)
- HST 3159 The World at War, 1931-1945 (3 credits)
- HST 3208 Greece and Rome, 1500 BCE-500 CE (3 credits)
- HST 3258 The Roman Civil Law Tradition (3 credits)
- HST 3268 The Roman Revolution, 200 BCE-CE 14 (3 credits)
- HST 3277 Readings and Research in European History (3 credits)
- HST 3409 Colonialism and Modernization in the Non-Western World (3 credits)
- HST 3419 East Asia (3 credits)
- HST 3429 South and Southeast Asia (3 credits)
- HST 3449 Middle East (3 credits)
- HST 3459 Latin America (3 credits)

UPPER DIVISION U.S. HISTORY
SELECT 1 OF THE FOLLOWING COURSES

- HST 2600 Topics in History (3 credits)
- HST 2610 Minnesota History (3 credits)
- HST 2640 United States Diplomatic History (3 credits)
- HST 2667 Men and Women: Gender in America (3 credits)
- HST 2800 Reacting to the Past (3 credits)
- HST 3117 American Revolutionary Era, 1763-1800 (3 credits)
- HST 3128 Testing Democracy: Reform in Nineteenth-Century America (3 credits)
- HST 3137 Civil War and Reconstruction, 1844-1877 (3 credits)
- HST 3159 The World at War, 1931-1945 (3 credits)
- HST 3187 American West (3 credits)

POLITICAL SCIENCE COURSES
SELECT 1 OF THE FOLLOWING COURSES

- POL 1200 Introduction to American Politics (3 credits)
- POL 1300 Introduction to International Relations (3 credits)
- POL 1400 Introduction to Comparative Politics (3 credits)

POLITICAL SCIENCE COURSES
SELECT 1 OF THE FOLLOWING COURSES

- POL 3100 American Foreign Policy (3 credits)
- POL 3130 Asian Political Development (3 credits)
- POL 3150 Topics in Political Science (1-3 credits)
- POL 3160 Comparative European Politics (3 credits)
- POL 3170 International Relations (3 credits)
- POL 3180 International Law and Organization (3 credits)
- POL 3190 International Political Economy (3 credits)
- POL 3200 Minnesota Politics (3 credits)
- POL 3210 Public Administration (3 credits)
- POL 3230 Environmental Politics (3 credits)
- POL 3410 Legislative and Executive Relations (3 credits)
- POL 3420 Campaigns and Elections (3 credits)
- POL 4200 Constitutional Law (3 credits)

SOCIOLOGY COURSES
COMPLETE THE FOLLOWING COURSES:

- SOC 2200 Social Movements and Change (3 credits)
- SOC 3010 Social Theory (3 credits)

**II REQUIRED FIELD OF EMPHASIS**

COMPLETE THE FOLLOWING COURSE:

- PSY 1100 Introductory Psychology (4 credits)

SELECT 14 SEMESTER CREDITS OF ELECTIVES FROM PSYCHOLOGY

## Psychology *minor*

Multiple Credentials
Any additional major, minor or certificate in a degree must have at least 6 credits of course work not used to meet the requirements of another major, minor or certificate in the degree.

Required Credits: 19

Required GPA: 2.00

**I REQUIRED COURSES**

SELECT THE FOLLOWING COURSE:

- PSY 1100 Introductory Psychology (4 credits)

**II REQUIRED ELECTIVES**

SELECT 15 SEMESTER CREDITS FROM PSYCHOLOGY COURSES

## Psychology Courses

**PSY 1010 Stress and Coping (2 credits)**
Focuses on the development of personal skills related to health and lifetime achievement. Topics include stress management, self-motivation, study skills, interpersonal relationships, and overcoming common anxieties. Liberal Education Goal Area 11.

**PSY 1100 Introductory Psychology (4 credits)**
Introduction to the study of behavior, cognition, and emotion and general survey of psychological principles. Liberal Education Goal Area 5.

**PSY 2200 Human Sexuality (3 credits)**
Physiological and psychosocial aspects of human sexual behavior with an emphasis on healthy sexual adjustment. Liberal Education Goal Area 7.

**PSY 2217 Abnormal Psychology (4 credits)**
Survey of the major forms of psychopathology in children, adolescents, and adults. Examines assessment, diagnosis, and current research into the causes and treatment of psychological disorders. Prerequisite: PSY 1100.

**PSY 2227 Learning and Cognition (4 credits)**
An introduction to behavioral and cognitive theories of behavior change and associated applications in animal training, education, and applied psychology. Prerequisite: PSY 1100.

**PSY 2357 Industrial and Organizational Psychology (3 credits)**
Presentation and analysis of theoretical, technical, and applied aspects of psychology in work settings. Topics include: human resources activities (selection, training and evaluation of personnel), work motivation, job satisfaction, leadership, organizational structure, group/team communication, working conditions. Prerequisite: PSY 1100.

**PSY 3210 Death and Culture (3 credits)**
Death is a universal human experience shaped by the attitudes of any given culture. Examines death and dying in various cultural contexts and the accompanying psychological research into death attitudes and processes. Liberal Education Goal Area 8.

**PSY 3237 Lifespan Development (4 credits)**
A review of theories and research on the psychological, physical, and environmental factors influencing adjustment and development across the lifespan. Prerequisite: PSY 1100.

**PSY 3332 Counseling and Crisis Interventions (4 credits)**
A practical, skills-based introduction to the development of interpersonal awareness, beginning counseling techniques, and crisis intervention techniques. Prerequisites: PSY 1100 and PSY 2217.

**PSY 3337 Group Processes (3 credits)**
The examination and practical application of principles and dynamics underlying group behavior from a psychological perspective. Prerequisites: PSY 1100 and PSY 3401, or consent of instructor.

**PSY 3367 Social Psychology (3 credits)**
Survey of contemporary research in interpersonal perception and attraction, aggression and altruism, group dynamics, conformity, compliance, and attitude formation and change. Prerequisite: PSY 1100.

**PSY 3378 Living in Isolated and Confined Environments (2 credits)**
A study of the psychological factors involved in planning the environment and selecting the crew for long-duration manned space missions. Prerequisite: PSY 1100.

**PSY 3387 Topics in Psychology (1-4 credits)**
An in-depth study of topics of current interest in psychology. Prerequisite: PSY 1100.

**PSY 3401 Basic Statistics for Research (4 credits)**
Measures of central tendency, variability, and shape; t-tests; correlation; linear regression; chi-square tests; and one-way analysis of variance. Emphasis is on the use of appropriate statistical procedures for research using SPSS statistical software. Prerequisite: Completion of Liberal Education mathematics requirement (Category 4).

**PSY 3402 Research Methods (4 credits)**
Survey of research methods, concepts, issues, and strategies. Topics will include experimental and non-experimental methods; designing, conducting, and analyzing different types of studies; critiquing research; and writing research reports. Prerequisites: PSY 1100 and PSY 3401.

**PSY 3437 Cognitive Psychology (3 credits)**
Survey of models and research in cognition, including the topics of attention, memory, knowledge representation, language, problem solving, reasoning, and decision making. Prerequisite: PSY 1100.

**PSY 3500 Psychology of Aging (4 credits)**
This course examines adult development in the senior years from a biopsychosocial perspective. Aspects of normal and abnormal development are covered as well as the impact of aging on the individual and the family. Prerequisites: PSY 3237 or consent of instructor.

**PSY 4328 Behavioral and Cognitive Intervention (4 credits)**
Behavioral theory and the method of applied behavior analysis are explored. Therapeutic application of behavioral and cognitive/behavioral principles to human problems in various settings is practiced. Prerequisites: PSY 1100 and PSY 2227.

**PSY 4347 Psychological Measurement (3 credits)**
This course is designed to provide a basic understanding of psychometric theory and methods of psychological test construction, and to effect familiarity with established measures of personality, interests, intelligence, and academic achievement. Prerequisites: PSY 1100 and PSY 3401.

**PSY 4403 Advanced Statistics and Research Design (4 credits)**
Advanced statistics, focusing on factorial analysis of variance and multiple regression using SPSS, as well as associated research designs. Emphasis on logic, applications, and communication. Prerequisites: PSY 3401 and PSY 3402, or consent of instructor.

**PSY 4408 Human Services Program Management (3 credits)**
Theories and techniques of managing human service agencies including planning, administration, evaluation and grant writing. Prerequisites: PSY 1100, PSY 3401, PSY 3402, or consent of instructor.

**PSY 4447 Research Laboratory (1-4 credits)**
Supervised, original research in selected areas. May be repeated for credit. Prerequisites: PSY 1100, PSY 3401, and PSY 3402, or consent of instructor.

**PSY 4459 Psychophysiology and Perception (4 credits)**
An in-depth introduction, including the topics of the nervous system, electrochemical and neurochemical bases of behavior, vision, audition, somatic and chemical senses, movement, emotion, and cognition. Prerequisites: PSY 1100, PSY 3401, and PSY 3402, or consent of instructor.

**PSY 4467 Personality Theories (3 credits)**
Introduction to major theories of personality and related research. Prerequisites: PSY 1100, PSY 2217, PSY 3401, and PSY 3402, or consent of instructor.

**PSY 4487 History and Systems of Psychology (3 credits)**
Contemporary issues and theories in psychology and their historical developments. Prerequisite: Senior standing in the major.

**PSY 4587 Advanced Topics in Psychology (2-4 credits)**
In-depth study of topics of current interest in psychology. Prerequisites: PSY 3401 and senior standing in the major.

**PSY 4588 Multicultural Psychology (3 credits)**
The purpose of this course is to examine cultural processes as a defining characteristic of what it is to be human, and as a central, or proximal variable in psychology. This course is intended to provide students with a better appreciation of the myriad of ways in which culture determines psyche and behavior, and to enhance their awareness of the countless variations in human behavior across cultures. In this course, we will examine the goals and nature of multicultural and cross-cultural psychology. In this course, we will consider current theories and research on culture, race, and ethnicity. Topics covered in the class range from culturally relevant styles of communication, values from different cultures, racial identity, power and privilege, and issues around health. This course will help prepare students to grapple with issues of multiculturalism in the modern diverse society. Prerequisite(s): PSY 3401 and senior standing in the major or consent of instructor.

**PSY 4870 Pre-Internship Seminar (1 credit)**
Selection of internship site and preparation for the internship experience. Prerequisite: Junior or senior standing in the psychology major.

**PSY 4970 Psychology Senior Internship (6-12 credits)**
Supervised community and campus internships in human service and research settings. Two hundred hours of internship work experience are required for 6 credits, four hundred hours for 12 credits. Prerequisites: PSY 4870 and completion of course work for the psychology major, including PSY 3332 and PSY 3337 for human service internships or PSY 4403 for research internships.

## All-University Courses

The course numbers listed below, not always included in the semester class schedule, may be registered for by consent of the advisor, instructor, or department chair, or may be assigned by the department when warranted. Individual registration requires previous arrangement by the student and the completion of any required form or planning outline as well as any prerequisites.

1910, 2910, 3910, 4910 DIRECTED INDEPENDENT STUDY
1920, 2920, 3920, 4920 DIRECTED GROUP STUDY
1930, 2930, 3930, 4930 EXPERIMENTAL COURSE
1940, 2940, 3940, 4940 IN-SERVICE COURSE
1950, 2950, 3950, 4950 WORKSHOP, INSTITUTE, TOUR
1960, 2960, 3960, 4960 SPECIAL PURPOSE INSTRUCTION
1970, 2970, 3970, 4970 INTERNSHIP
1980, 2980, 3980, 4980 RESEARCH
1990, 2990, 3990, 4990 THESIS

# Science Education

While the term "science" is applied generally to the study of natural phenomena, in the Science degree program at Bemidji State University it applies to a combined study of the life, earth, and physical sciences in the context of teacher certification for grades 5-8. This "broad science" degree is favored by school districts for their junior high/middle school science positions. Students in the Teacher Licensure Grades 5-12 degree program are also required to select at least one specialty for grades 9-12 from one of the following science areas: Chemistry, Earth and Space Science, Life Science, or Physics.

**Programs**

- Elementary Education, B.S. (Science Endorsement (Teacher Licensure))*major*
- Science Education, B.S. (Physics Specialty (Teacher Licensure))*major*
- Science Education, B.S. (Life Science Specialty (Teacher Licensure))*major*
- Science Education, B.S. (Earth and Space Science Specialty (Teacher Licensure))*major*
- Science Education, B.S. (Chemistry Specialty (Teacher Licensure))*major*

**Career Directions**

Middle School Teacher
Junior High School Teacher
High School Science Teacher

**Preparation**

*Recommended High School Courses*
Biology
Chemistry
Physics
Algebra
Trigonometry

## Elementary Education, B.S. *major*
## Science Endorsement (Teacher Licensure)

Required Credits: 101
Required GPA: 2.50

**I ELEMENTARY EDUCATION FOUNDATION COURSES**

COMPLETE THE FOLLOWING COURSES:

- ED 3100 Introduction to the Foundations of Public School Education (3 credits)
- ED 3110 Educational Psychology (3 credits)
- ED 3140 Human Relations In Education (3 credits)
- ED 3350 Pedagogy: Planning for Instruction (3 credits)
- ED 3780 Adaptation and Management: Designing the Learning Environment (3 credits)
- ED 4799 The Professional Teacher (1 credit)
- HLTH 3400 Health and Drugs in Society (2 credits)

COMPLETE THE FOLLOWING COURSE, UP TO 12 CREDITS:

- ED 4820 Student Teaching - Elementary (1-16 credits)

**II ELEMENTARY EDUCATION MAJOR COURSES**

COMPLETE THE FOLLOWING COURSES:

- ED 3201 Language Arts I (3 credits)
- ED 3202 Language Arts II (3 credits)
- ED 3203 Language Arts III (3 credits)
- ED 3221 Elementary Math Methods (3 credits)
- ED 3222 Elementary Science Methods (3 credits)
- ED 3240 Social Studies in the Elementary School (3 credits)
- ED 3301 Creative Expressions (3 credits)
- ED 3302 Creative Process Foundations: Patterns (3 credits)
- HLTH 4100 Teaching Elementary School Health (2 credits)
- PHED 4200 Methods of Teaching Elementary Physical Education to Classroom Teachers (1 credit)

COMPLETE THE FOLLOWING COURSE:

- MATH 1011 Mathematics for Elementary School Teachers I (3 credits)

COMPLETE THE FOLLOWING COURSE:

- MATH 1013 Mathematics for Elementary School Teachers II (3 credits)

**SCIENCE ENDORSEMENT**

COMPLETE THE FOLLOWING COURSES:

- BIOL 1211 Introductory Biology I (4 credits)
  *or* BIOL 1110 Human Biology (4 credits)
- BIOL 1212 Introductory Biology II (4 credits)
  *or* BIOL 1120 General Biology: Evolution And Ecology (3 credits)
- CHEM 2211 Principles of Chemistry I (4 credits)
  *or* CHEM 1111 General Chemistry I (4 credits)
- CHEM 2212 Principles of Chemistry II (4 credits)
  *or* CHEM 1112 General Chemistry II (4 credits)
- GEOL 1110 Physical Geology (4 credits)
- SCI 3100 Integrative Science for Teachers (4 credits)
- SCI 3450 Science Methods For Grades 5-8 (4 credits)
  *or* ED 3410 Middle School Science Methods (4 credits)

EDUCATION CORE
COMPLETE THE FOLLOWING COURSES:

- ED 3417 Teaching and Learning in the Middle School (3 credits)
- ED 4737 Content Area Reading (3 credits)

COMPLETE THE FOLLOWING COURSE (5 CREDITS):

- ED 4840 Student Teaching - Special Fields (1-12 credits)

## Science Education, B.S. *major*
## Physics Specialty (Teacher Licensure)

Required Credits: 83
Required GPA: 2.50

**Core Courses for Science Teaching in Grades 5-8**

COMPLETE THE FOLLOWING COURSES:

- BIOL 1211 Introductory Biology I (4 credits)
  *or* BIOL 1110 Human Biology (4 credits)
- BIOL 1212 Introductory Biology II (4 credits)
  *or* BIOL 1120 General Biology: Evolution And Ecology (3 credits)
- CHEM 2211 Principles of Chemistry I (4 credits)
  *or* CHEM 1111 General Chemistry I (4 credits)
- CHEM 2212 Principles of Chemistry II (4 credits)
  *or* CHEM 1112 General Chemistry II (4 credits)
- GEOL 1110 Physical Geology (4 credits)
- SCI 3100 Integrative Science for Teachers (4 credits)
- SCI 3450 Science Methods For Grades 5-8 (4 credits)
  *or* ED 3410 Middle School Science Methods (4 credits)

**REQUIRED PROFESSIONAL EDUCATION COURSES**

COMPLETE THE FOLLOWING COURSES:

- ED 3100 Introduction to the Foundations of Public School Education (3 credits)
- ED 3110 Educational Psychology (3 credits)
- ED 3140 Human Relations In Education (3 credits)
- ED 3350 Pedagogy: Planning for Instruction (3 credits)
- ED 3780 Adaptation and Management: Designing the Learning Environment (3 credits)
- ED 4737 Content Area Reading (3 credits)
- ED 4799 The Professional Teacher (1 credit)
- HLTH 3400 Health and Drugs in Society (2 credits)

Complete 12 credits of student teaching:

- ED 4830 Student Teaching - Secondary (1-12 credits)

**PHYSICS SPECIALTY**

COMPLETE THE FOLLOWING COURSES:

MATH 2471 is recommended (required for PHYS 2101)

- PHYS 2101 Physics I (5 credits)
  *or* PHYS 1101 General Physics I (4 credits)
- PHYS 2102 Physics II (5 credits)
  *or* PHYS 1102 General Physics II (4 credits)
- PHYS 2500 Electronics I (4 credits)
- PHYS 3600 Modern Physics (4 credits)
- PHYS 4580 Optics (4 credits)

COMPLETE THE FOLLOWING COURSE:

- PHYS 4980 Research (3 credits)

## Science Education, B.S. *major*
## Life Science Specialty (Teacher Licensure)

Required Credits: 83
Required GPA: 2.50

**Core Courses for Science Teaching in Grades 5-8**

COMPLETE THE FOLLOWING COURSES:

- BIOL 1211 Introductory Biology I (4 credits)
  *or* BIOL 1110 Human Biology (4 credits)
- BIOL 1212 Introductory Biology II (4 credits)
  *or* BIOL 1120 General Biology: Evolution And Ecology (3 credits)
- CHEM 2211 Principles of Chemistry I (4 credits)
  *or* CHEM 1111 General Chemistry I (4 credits)
- CHEM 2212 Principles of Chemistry II (4 credits)
  *or* CHEM 1112 General Chemistry II (4 credits)
- GEOL 1110 Physical Geology (4 credits)
- SCI 3100 Integrative Science for Teachers (4 credits)
- SCI 3450 Science Methods For Grades 5-8 (4 credits)
  *or* ED 3410 Middle School Science Methods (4 credits)

**REQUIRED PROFESSIONAL EDUCATION COURSES**

COMPLETE THE FOLLOWING COURSES:

- ED 3100 Introduction to the Foundations of Public School Education (3 credits)
- ED 3110 Educational Psychology (3 credits)
- ED 3140 Human Relations In Education (3 credits)
- ED 3350 Pedagogy: Planning for Instruction (3 credits)
- ED 3780 Adaptation and Management: Designing the Learning Environment (3 credits)
- ED 4737 Content Area Reading (3 credits)
- ED 4799 The Professional Teacher (1 credit)
- HLTH 3400 Health and Drugs in Society (2 credits)

Complete 12 credits of student teaching:

- ED 4830 Student Teaching - Secondary (1-12 credits)

**LIFE SCIENCE SPECIALTY**

A. REQUIRED BIOLOGY COURSES
COMPLETE THE FOLLOWING COURSES:

- BIOL 2360 Genetics (4 credits)
- BIOL 2610 General Ecology (3 credits)
- BIOL 2620 Field and Laboratory Projects in Ecological Research (2 credits)
- BIOL 3710 Microbiology (4 credits)
- BIOL 4620 Evolution (3 credits)
- BIOL 3720 Plant Form and Function (4 credits)
  *or* BIOL 3830 Aquatic Plants (4 credits)

B. REQUIRED BIOLOGY ELECTIVE
SELECT 1 OF THE FOLLOWING COURSES:

- BIOL 3150 Animal Behavior (3 credits)
- BIOL 3310 Entomology (4 credits)
- BIOL 4510 Ornithology (4 credits)
- BIOL 4520 Mammalogy (4 credits)
- BIOL 4534 Ichthyology (4 credits)

**SUGGESTED SEMESTER SCHEDULE FOR LIFE SCIENCE SPECIALTY, SCIENCE EDUCATION MAJOR, B.S. (TEACHER LICENSURE)**

The following is a list of required Science (Life Science) Major, B.S. courses arranged by year. This schedule is intended to assist students in planning their courses. There is some flexibility in this schedule, but graduation within four years will require close adherence to the specified sequence of courses. Always consult your Biology academic advisor as to the proper courses and sequence of courses needed for graduation. It is possible, in some circumstances, that courses in a student's Liberal Education program may be used in his or her academic major.

Freshman

- BIOL 1211 Introductory Biology I (4 credits)
- BIOL 1212 Introductory Biology II (4 credits)
- CHEM 2211 Principles of Chemistry I (4 credits)
- Liberal Education requirements

Sophomore

- BIOL 2360 Genetics (4 credits)
- BIOL 2610 General Ecology (3 credits)
- BIOL 2620 Field and Laboratory Projects in Ecological Research (2 credits)
- BIOL 3720 Plant Form and Function (4 credits)
- GEOL 1110 Physical Geology (4 credits)
- PHYS 1101 General Physics I (4 credits)
  *or* PHYS 2101 Physics I (5 credits)
- Consider starting Professional Education sequence
- Liberal Education requirements

Junior

- BIOL 3710 Microbiology (4 credits)
- SCI 3100 Integrative Science for Teachers (4 credits)
- SCI 3450 Science Methods For Grades 5-8 (4 credits)
- Other Professional Education requirements
- Liberal Education requirements

Senior

- Biology Elective (BIOL 3150, 3310, 3510, 4520, or 4534)
- BIOL 4620 Evolution (3 credits)
- Complete Professional Education requirements, including one semester of student teaching
- Complete liberal education requirements

## Science Education, B.S. *major*
## Earth and Space Science Specialty (Teacher Licensure)

Required Credits: 86
Required GPA: 2.50

**Core Courses for Science Teaching in Grades 5-8**

COMPLETE THE FOLLOWING COURSES:

- BIOL 1211 Introductory Biology I (4 credits)
  *or* BIOL 1110 Human Biology (4 credits)
- BIOL 1212 Introductory Biology II (4 credits)
  *or* BIOL 1120 General Biology: Evolution And Ecology (3 credits)
- CHEM 2211 Principles of Chemistry I (4 credits)
  *or* CHEM 1111 General Chemistry I (4 credits)
- CHEM 2212 Principles of Chemistry II (4 credits)
  *or* CHEM 1112 General Chemistry II (4 credits)
- GEOL 1110 Physical Geology (4 credits)
- SCI 3100 Integrative Science for Teachers (4 credits)
- SCI 3450 Science Methods For Grades 5-8 (4 credits)
  *or* ED 3410 Middle School Science Methods (4 credits)

**REQUIRED PROFESSIONAL EDUCATION COURSES**

COMPLETE THE FOLLOWING COURSES:

- ED 3100 Introduction to the Foundations of Public School Education (3 credits)
- ED 3110 Educational Psychology (3 credits)
- ED 3140 Human Relations In Education (3 credits)
- ED 3350 Pedagogy: Planning for Instruction (3 credits)
- ED 3780 Adaptation and Management: Designing the Learning Environment (3 credits)
- ED 4737 Content Area Reading (3 credits)
- ED 4799 The Professional Teacher (1 credit)
- HLTH 3400 Health and Drugs in Society (2 credits)

Complete 12 credits of student teaching:

- ED 4830 Student Teaching - Secondary (1-12 credits)

**EARTH AND SPACE SCIENCE SPECIALTY**

COMPLETE THE FOLLOWING COURSES:

- ENVR 2000 Introduction to Environmental Science (3 credits)
- GEOL 1120 Historical Geology (4 credits)
- GEOL 2110 Mineralogy and Petrology (4 credits)
- GEOL 3500 Topics in Paleontology (3 credits)
- GEOL 3600 Stratigraphy and Sedimentation (3 credits)
- SCI 2100 Astronomy (3 credits)

SELECT 1 OF THE FOLLOWING COURSES:

- GEOL 3211 Environmental Hydrology (3 credits)
- ENVR 4050 Geochemistry (3 credits)

SELECT 1 OF THE FOLLOWING COURSES:

- GEOL 4970 Internship (3 credits)
- GEOL 4980 Research (3 credits)

## Science Education, B.S. *major*
## Chemistry Specialty (Teacher Licensure)

Required Credits: 78
Required GPA: 2.50

**Core Courses for Science Teaching in Grades 5-8**

COMPLETE THE FOLLOWING COURSES:

- BIOL 1211 Introductory Biology I (4 credits)
  *or* BIOL 1110 Human Biology (4 credits)
- BIOL 1212 Introductory Biology II (4 credits)
  *or* BIOL 1120 General Biology: Evolution And Ecology (3 credits)
- CHEM 2211 Principles of Chemistry I (4 credits)
  *or* CHEM 1111 General Chemistry I (4 credits)

- CHEM 2212 Principles of Chemistry II (4 credits)
  *or* CHEM 1112 General Chemistry II (4 credits)
- GEOL 1110 Physical Geology (4 credits)
- SCI 3100 Integrative Science for Teachers (4 credits)
- SCI 3450 Science Methods For Grades 5-8 (4 credits)
  *or* ED 3410 Middle School Science Methods (4 credits)

**REQUIRED PROFESSIONAL EDUCATION COURSES**

COMPLETE THE FOLLOWING COURSES:

- ED 3100 Introduction to the Foundations of Public School Education (3 credits)
- ED 3110 Educational Psychology (3 credits)
- ED 3140 Human Relations In Education (3 credits)
- ED 3350 Pedagogy: Planning for Instruction (3 credits)
- ED 3780 Adaptation and Management: Designing the Learning Environment (3 credits)
- ED 4737 Content Area Reading (3 credits)
- ED 4799 The Professional Teacher (1 credit)
- HLTH 3400 Health and Drugs in Society (2 credits)

Complete 12 credits of student teaching:

- ED 4830 Student Teaching - Secondary (1-12 credits)

**CHEMISTRY SPECIALTY**

COMPLETE THE FOLLOWING COURSES:

- CHEM 3110 Laboratory Management and Safety (2 credits)
- CHEM 3311 Organic Chemistry I (3 credits)
- CHEM 3312 Organic Chemistry II (3 credits)
- CHEM 3371 Organic Chemistry Laboratory I (1 credit)
- CHEM 3372 Organic Chemistry Laboratory II (1 credit)
- CHEM 3507 Analytical Chemistry (3 credits)
- CHEM 3570 Analytical Chemistry Laboratory (1 credit)
- CHEM 3980 Research (1 credit)

SELECT 1 OF THE FOLLOWING COURSES:

- CHEM 4411 Biochemistry I (3 credits)
- CHEM 4811 Advanced Inorganic Chemistry I (3 credits)

## Science Courses

**SCI 1110 Physical Science I (4 credits)**
A single-semester survey of Physical Science, with laboratory. Includes selected topics in physics, chemistry, geology, astronomy, and meteorology. Includes laboratory and computer sessions. Liberal Education Goal Area 3 (LC).

**SCI 1120 Physical Science II (4 credits)**
Science and Technology in Society (STS). An alternative perspective on Physical Science, using selected topics to discuss societal concerns and responsibilities. Includes laboratory and related computer-based small group sessions. Liberal Education Goal Area 3 (LC).

**SCI 2100 Astronomy (3 credits)**
A one-semester survey course, with emphasis on the history of astronomy, the science of stellar and solar system formation, the evolution of stars and galaxies, and modern cosmology and the fate of the universe. Includes laboratory simulations and field exercises. Liberal Education Goal Area 3.

**SCI 2200 Meteorology (3 credits)**
A one-semester survey course, with emphasis on the science of the atmospheric dynamics of weather and climate, precipitation, storms, and forecasting. Includes laboratory simulations and field exercises. Liberal Education Goal Area 3.

**SCI 2651 Study-Travel Natural Science (1-6 credits)**
Study Travel course in Science for Lab Ed Goal Area 3.

**SCI 2925 People and the Environment: Science Perspective (3 credits)**
The discussions of this section will include the specific relation between air, water, and solid waste pollution and the effect on the environment, including the following: acid rain, smog, global warming, measurement of environmental pollutants, and the role of science in solving pollution problems. Liberal Education Goal Area 10.

**SCI 2951 Study-Travel Natural Science (1-6 credits)**
Study Travel course in Science for Lib Ed Goal Area 3.

**SCI 3100 Integrative Science for Teachers (4 credits)**
An interdisciplinary laboratory-based course incorporating the areas of biology, chemistry, earth science, and physics. Focuses on conducting a series of investigations by Science Inquiry and demonstrating the connection between the various disciplines. Prerequisites: 2 courses each in the life sciences and physical sciences.

**SCI 3450 Science Methods For Grades 5-8 (4 credits)**
Strategies for implementation of the Minnesota Graduation Standards in the areas of Science and Inquiry for grades 5-8. Strategies include laboratory activities, discussions, the development of classroom activities, and the adaptation of these strategies for use in the elementary and high school science classroom. Prerequisite: Senior status or consent of instructor.

### All-University Courses

The course numbers listed below, not always included in the semester class schedule, may be registered for by consent of the advisor, instructor, or department chair, or may be assigned by the department when warranted. Individual registration requires previous arrangement by the student and the completion of any required form or planning outline as well as any prerequisites.

1910, 2910, 3910, 4910 DIRECTED INDEPENDENT STUDY
1920, 2920, 3920, 4920 DIRECTED GROUP STUDY
1930, 2930, 3930, 4930 EXPERIMENTAL COURSE
1940, 2940, 3940, 4940 IN-SERVICE COURSE
1950, 2950, 3950, 4950 WORKSHOP, INSTITUTE, TOUR
1960, 2960, 3960, 4960 SPECIAL PURPOSE INSTRUCTION
1970, 2970, 3970, 4970 INTERNSHIP
1980, 2980, 3980, 4980 RESEARCH
1990, 2990, 3990, 4990 THESIS

# Social Studies

Social Studies educates students for democracy. An interdisciplinary social science major, it draws from economics, geography, history, political science, psychology and sociology.

The Bachelor of Science, Teacher Licensure major prepares students for a career at the secondary level and requires a passion for both the subject matter and for teaching. Geography, history, and political science form the "matrix" for social studies education. To increase their employability, students are encouraged to take a second major or minor in a social studies discipline. Students interested in Social Studies as a major or minor should meet as early as possible with the coordinator.

The Bachelor of Arts major prepares students for employment in a broad number of careers. This major offers breadth in background and content combined with applied skills development in the areas of the social sciences.

**Programs**

- Social Studies Education, B.S. ((Teacher Licensure))*major*
- Social Studies, B.A. (Political Science Emphasis)*major*
- Social Studies, B.A. (History Emphasis)*major*
- Social Studies, B.A. (Economics Emphasis)*major*
- Social Studies, B.A. (Psychology Emphasis)*major*
- Social Studies, B.A. (Econ/ Pol Sci/ Soc/ Anth: Broad Field Emphasis)*major*
- Social Studies, B.A. (Sociology-Anthropology Emphasis)*major*
- Social Studies, B.A. (Geography Emphasis)*major*
- Social Studies *minor*

**Career Directions**

Business
Civil Service
Education
Journalism
Also: Graduate Study

**Preparation**

*Recommended High School Courses*
History
Geography
Government
Economics

*Recommended Activities*
Teaching Assistant
Speech

## Social Studies Education, B.S. *major* (Teacher Licensure)

Required Credits: 86
Required GPA: 2.50

**Note:** Students must have a minimum overall 2.50 GPA in the major. No grade below a "C" may be used to meet program requirements. A minimum of 22 of the 53 Social Studies program credits must be completed at BSU.

**I ECONOMICS COURSES**

COMPLETE THE FOLLOWING COURSES:

- ECON 2000 Markets and Resource Allocation (3 credits)
- ECON 2100 Macroeconomics and the Business Cycle (3 credits)

**II GEOGRAPHY COURSES**

COMPLETE THE FOLLOWING COURSES:

- GEOG 2100 Introduction to Physical Geography (3 credits)
- GEOG 2200 Introduction to Human Geography (3 credits)
- GEOG 3410 Geography of North America (3 credits)

**III HISTORY COURSES**

COMPLETE THE FOLLOWING COURSES:

- HST 1114 United States History I, to 1877 (3 credits)
- HST 1115 United States History II, since 1877 (3 credits)
- HST 1304 World History I, Prehistory-1500 (3 credits)
- HST 1305 World History II, 1500-Present (3 credits)
- HST 2610 Minnesota History (3 credits)

**IV POLITICAL SCIENCE COURSES**

COMPLETE THE FOLLOWING COURSES

- POL 1200 Introduction to American Politics (3 credits)
- POL 1300 Introduction to International Relations (3 credits)

SELECT 1 OF THE FOLLOWING COURSES (3 CREDITS MINIMUM):

- POL 3100 American Foreign Policy (3 credits)
- POL 3130 Asian Political Development (3 credits)
- POL 3140 Canadian Politics (3 credits)
- POL 3150 Topics in Political Science (1-3 credits)
- POL 3160 Comparative European Politics (3 credits)
- POL 3170 International Relations (3 credits)
- POL 3180 International Law and Organization (3 credits)
- POL 3190 International Political Economy (3 credits)
- POL 3200 Minnesota Politics (3 credits)
- POL 3210 Public Administration (3 credits)
- POL 3230 Environmental Politics (3 credits)
- POL 3410 Legislative and Executive Relations (3 credits)
- POL 3420 Campaigns and Elections (3 credits)
- POL 4200 Constitutional Law (3 credits)

**V PSYCHOLOGY COURSE**

COMPLETE THE FOLLOWING COURSE:

- PSY 1100 Introductory Psychology (4 credits)

**VI SOCIOLOGY COURSES**

COMPLETE THE FOLLOWING COURSES:

- SOC 1104 Society and Social Issues (3 credits)
- SOC 3010 Social Theory (3 credits)
  *or* SOC 3050 Environmental Sociology (3 credits)

**VII SOCIAL STUDIES METHODS COURSE**

COMPLETE THE FOLLOWING COURSE:

- GEOG 3460 Teaching of Middle and Secondary School Social Studies (4 credits)

**REQUIRED PROFESSIONAL EDUCATION COURSES**

COMPLETE THE FOLLOWING COURSES:

- ED 3100 Introduction to the Foundations of Public School Education (3 credits)
- ED 3110 Educational Psychology (3 credits)
- ED 3140 Human Relations In Education (3 credits)
- ED 3350 Pedagogy: Planning for Instruction (3 credits)
- ED 3780 Adaptation and Management: Designing the Learning Environment (3 credits)
- ED 4737 Content Area Reading (3 credits)
- ED 4799 The Professional Teacher (1 credit)
- HLTH 3400 Health and Drugs in Society (2 credits)

Complete 12 credits of student teaching:

- ED 4830 Student Teaching - Secondary (1-12 credits)

## Social Studies, B.A. *major*
## Political Science Emphasis

Required Credits: 48
Required GPA: 2.50

**I REQUIRED CORE CURRICULUM**

CAPSTONE COURSE
COMPLETE THE FOLLOWING COURSE:

- POL 4500 Thesis and Career Preparation (3 credits)

ECONOMICS COURSES
SELECT 1 OF THE FOLLOWING COURSES:

- ECON 2000 Markets and Resource Allocation (3 credits)
- ECON 2100 Macroeconomics and the Business Cycle (3 credits)

GEOGRAPHY COURSES
SELECT 1 OF THE FOLLOWING COURSES

- GEOG 2100 Introduction to Physical Geography (3 credits)
- GEOG 2200 Introduction to Human Geography (3 credits)

GEOGRAPHY COURSES
SELECT 1 OF THE FOLLOWING COURSES:

- GEOG 3410 Geography of North America (3 credits)
- GEOG 3800 Regional Geography (1-3 credits)
- GEOG 3810 Geography of Europe (3 credits)
- GEOG 3820 Geography of East, South, and Southeast Asia (3 credits)
- GEOG 3840 Geography of Africa (3 credits)

UPPER DIVISION WORLD HISTORY
SELECT 1 OF THE FOLLOWING COURSES

- HST 2218 Medieval Europe (3 credits)
- HST 2228 Renaissance and Reformation Europe (3 credits)
- HST 2580 Russia (3 credits)
- HST 2600 Topics in History (3 credits)
- HST 2660 Women and History (3 credits)
- HST 2700 The History of World Religions (3 credits)
- HST 2800 Reacting to the Past (3 credits)
- HST 3159 The World at War, 1931-1945 (3 credits)
- HST 3208 Greece and Rome, 1500 BCE-500 CE (3 credits)
- HST 3258 The Roman Civil Law Tradition (3 credits)
- HST 3268 The Roman Revolution, 200 BCE-CE 14 (3 credits)
- HST 3277 Readings and Research in European History (3 credits)
- HST 3409 Colonialism and Modernization in the Non-Western World (3 credits)
- HST 3419 East Asia (3 credits)
- HST 3429 South and Southeast Asia (3 credits)
- HST 3449 Middle East (3 credits)
- HST 3459 Latin America (3 credits)

UPPER DIVISION U.S. HISTORY
SELECT 1 OF THE FOLLOWING COURSES

- HST 2600 Topics in History (3 credits)
- HST 2610 Minnesota History (3 credits)
- HST 2640 United States Diplomatic History (3 credits)
- HST 2667 Men and Women: Gender in America (3 credits)
- HST 2800 Reacting to the Past (3 credits)
- HST 3117 American Revolutionary Era, 1763-1800 (3 credits)
- HST 3128 Testing Democracy: Reform in Nineteenth-Century America (3 credits)
- HST 3137 Civil War and Reconstruction, 1844-1877 (3 credits)
- HST 3159 The World at War, 1931-1945 (3 credits)
- HST 3187 American West (3 credits)

POLITICAL SCIENCE COURSES
SELECT 1 OF THE FOLLOWING COURSES

- POL 1200 Introduction to American Politics (3 credits)
- POL 1300 Introduction to International Relations (3 credits)
- POL 1400 Introduction to Comparative Politics (3 credits)

POLITICAL SCIENCE COURSES
SELECT 1 OF THE FOLLOWING COURSES

- POL 3100 American Foreign Policy (3 credits)
- POL 3130 Asian Political Development (3 credits)
- POL 3150 Topics in Political Science (1-3 credits)
- POL 3160 Comparative European Politics (3 credits)
- POL 3170 International Relations (3 credits)
- POL 3180 International Law and Organization (3 credits)
- POL 3190 International Political Economy (3 credits)
- POL 3200 Minnesota Politics (3 credits)
- POL 3210 Public Administration (3 credits)
- POL 3230 Environmental Politics (3 credits)
- POL 3410 Legislative and Executive Relations (3 credits)
- POL 3420 Campaigns and Elections (3 credits)
- POL 4200 Constitutional Law (3 credits)

SOCIOLOGY COURSES
COMPLETE THE FOLLOWING COURSES:

- SOC 2200 Social Movements and Change (3 credits)
- SOC 3010 Social Theory (3 credits)

**II REQUIRED FIELD OF EMPHASIS**

SELECT 18 SEMESTER CREDITS OF ELECTIVES FROM POLITICAL SCIENCE.

**SUGGESTED SEMESTER SCHEDULE FOR SOCIAL STUDIES MAJOR, B.A.**

The following is suggested for logical and effective scheduling but can be interpreted as flexible for meeting requirements and a student's particular needs. Students should meet with the Social Studies coordinator and advisor as early as possible in their planning.

Freshman - Sophomore

- Geography and History constitute the "matrix" of Social Studies and students should complete required core courses in these subjects first.
- Complete Liberal Education requirements

Junior-Senior

- Complete remaining core course requirements and courses for area of emphasis.
- Complete Professional Education courses
- Students pursuing the B.S. Teacher Licensure in Social Studies should complete GEOG 3460 no sooner than their junior year, preferably just prior to their student teaching.

## Social Studies, B.A. *major*
## History Emphasis

**Note:** A minimum of 22 semester credits used to meet course requirements in I and II must be completed at Bemidji State University. No course grade below a C may be used to meet these requirements and a minimum GPA of 2.50 in this major is required for graduation. Students who desire a second field of emphasis are to consider completion a minor or a second major in that field. Such action may complement and increase the marketability of this major.

Required Credits: 48
Required GPA: 2.50

**I REQUIRED CORE CURRICULUM**

CAPSTONE COURSE
COMPLETE THE FOLLOWING COURSE:

- POL 4500 Thesis and Career Preparation (3 credits)

ECONOMICS COURSES
SELECT 1 OF THE FOLLOWING COURSES:

- ECON 2000 Markets and Resource Allocation (3 credits)
- ECON 2100 Macroeconomics and the Business Cycle (3 credits)

GEOGRAPHY COURSES
SELECT 1 OF THE FOLLOWING COURSES

- GEOG 2100 Introduction to Physical Geography (3 credits)
- GEOG 2200 Introduction to Human Geography (3 credits)

GEOGRAPHY COURSES
SELECT 1 OF THE FOLLOWING COURSES:

- GEOG 3410 Geography of North America (3 credits)
- GEOG 3800 Regional Geography (1-3 credits)
- GEOG 3810 Geography of Europe (3 credits)
- GEOG 3820 Geography of East, South, and Southeast Asia (3 credits)
- GEOG 3840 Geography of Africa (3 credits)

UPPER DIVISION WORLD HISTORY
SELECT 1 OF THE FOLLOWING COURSES

- HST 2218 Medieval Europe (3 credits)
- HST 2228 Renaissance and Reformation Europe (3 credits)
- HST 2580 Russia (3 credits)
- HST 2600 Topics in History (3 credits)
- HST 2660 Women and History (3 credits)
- HST 2700 The History of World Religions (3 credits)
- HST 2800 Reacting to the Past (3 credits)
- HST 3159 The World at War, 1931-1945 (3 credits)
- HST 3208 Greece and Rome, 1500 BCE-500 CE (3 credits)
- HST 3258 The Roman Civil Law Tradition (3 credits)
- HST 3268 The Roman Revolution, 200 BCE-CE 14 (3 credits)
- HST 3277 Readings and Research in European History (3 credits)
- HST 3409 Colonialism and Modernization in the Non-Western World (3 credits)
- HST 3419 East Asia (3 credits)
- HST 3429 South and Southeast Asia (3 credits)
- HST 3449 Middle East (3 credits)
- HST 3459 Latin America (3 credits)

UPPER DIVISION U.S. HISTORY
SELECT 1 OF THE FOLLOWING COURSES

- HST 2600 Topics in History (3 credits)
- HST 2610 Minnesota History (3 credits)
- HST 2640 United States Diplomatic History (3 credits)
- HST 2667 Men and Women: Gender in America (3 credits)
- HST 2800 Reacting to the Past (3 credits)
- HST 3117 American Revolutionary Era, 1763-1800 (3 credits)
- HST 3128 Testing Democracy: Reform in Nineteenth-Century America (3 credits)
- HST 3137 Civil War and Reconstruction, 1844-1877 (3 credits)
- HST 3159 The World at War, 1931-1945 (3 credits)
- HST 3187 American West (3 credits)

POLITICAL SCIENCE COURSES
SELECT 1 OF THE FOLLOWING COURSES

- POL 1200 Introduction to American Politics (3 credits)
- POL 1300 Introduction to International Relations (3 credits)
- POL 1400 Introduction to Comparative Politics (3 credits)

POLITICAL SCIENCE COURSES
SELECT 1 OF THE FOLLOWING COURSES

- POL 3100 American Foreign Policy (3 credits)
- POL 3130 Asian Political Development (3 credits)
- POL 3150 Topics in Political Science (1-3 credits)
- POL 3160 Comparative European Politics (3 credits)
- POL 3170 International Relations (3 credits)
- POL 3180 International Law and Organization (3 credits)
- POL 3190 International Political Economy (3 credits)
- POL 3200 Minnesota Politics (3 credits)

- POL 3210 Public Administration (3 credits)
- POL 3230 Environmental Politics (3 credits)
- POL 3410 Legislative and Executive Relations (3 credits)
- POL 3420 Campaigns and Elections (3 credits)
- POL 4200 Constitutional Law (3 credits)

SOCIOLOGY COURSES
COMPLETE THE FOLLOWING COURSES:

- SOC 2200 Social Movements and Change (3 credits)
- SOC 3010 Social Theory (3 credits)

**II REQUIRED FIELD OF EMPHASIS**

SELECT 18 SEMESTER CREDITS OF ELECTIVES FROM HISTORY

## Social Studies, B.A. *major*
## Economics Emphasis

**Note:** A minimum of 22 semester credits used to meet course requirements in I and II must be completed at Bemidji State University. No course grade below a C may be used to meet these requirements and a minimum GPA of 2.50 in this major is required for graduation. Students who desire a second field of emphasis are to consider completion a minor or a second major in that field. Such action may complement and increase the marketability of this major.

Required Credits: 48
Required GPA: 2.50

**I REQUIRED CORE CURRICULUM**

CAPSTONE COURSE
COMPLETE THE FOLLOWING COURSE:

- POL 4500 Thesis and Career Preparation (3 credits)

ECONOMICS COURSES
SELECT 1 OF THE FOLLOWING COURSES:

- ECON 2000 Markets and Resource Allocation (3 credits)
- ECON 2100 Macroeconomics and the Business Cycle (3 credits)

GEOGRAPHY COURSES
SELECT 1 OF THE FOLLOWING COURSES

- GEOG 2100 Introduction to Physical Geography (3 credits)
- GEOG 2200 Introduction to Human Geography (3 credits)

GEOGRAPHY COURSES
SELECT 1 OF THE FOLLOWING COURSES:

- GEOG 3410 Geography of North America (3 credits)
- GEOG 3800 Regional Geography (1-3 credits)
- GEOG 3810 Geography of Europe (3 credits)
- GEOG 3820 Geography of East, South, and Southeast Asia (3 credits)
- GEOG 3840 Geography of Africa (3 credits)

UPPER DIVISION WORLD HISTORY
SELECT 1 OF THE FOLLOWING COURSES

- HST 2218 Medieval Europe (3 credits)
- HST 2228 Renaissance and Reformation Europe (3 credits)
- HST 2580 Russia (3 credits)
- HST 2600 Topics in History (3 credits)
- HST 2660 Women and History (3 credits)
- HST 2700 The History of World Religions (3 credits)
- HST 2800 Reacting to the Past (3 credits)
- HST 3159 The World at War, 1931-1945 (3 credits)
- HST 3208 Greece and Rome, 1500 BCE-500 CE (3 credits)
- HST 3258 The Roman Civil Law Tradition (3 credits)
- HST 3268 The Roman Revolution, 200 BCE-CE 14 (3 credits)
- HST 3277 Readings and Research in European History (3 credits)
- HST 3409 Colonialism and Modernization in the Non-Western World (3 credits)
- HST 3419 East Asia (3 credits)
- HST 3429 South and Southeast Asia (3 credits)
- HST 3449 Middle East (3 credits)
- HST 3459 Latin America (3 credits)

UPPER DIVISION U.S. HISTORY
SELECT 1 OF THE FOLLOWING COURSES

- HST 2600 Topics in History (3 credits)
- HST 2610 Minnesota History (3 credits)
- HST 2640 United States Diplomatic History (3 credits)
- HST 2667 Men and Women: Gender in America (3 credits)
- HST 2800 Reacting to the Past (3 credits)
- HST 3117 American Revolutionary Era, 1763-1800 (3 credits)
- HST 3128 Testing Democracy: Reform in Nineteenth-Century America (3 credits)
- HST 3137 Civil War and Reconstruction, 1844-1877 (3 credits)
- HST 3159 The World at War, 1931-1945 (3 credits)
- HST 3187 American West (3 credits)

POLITICAL SCIENCE COURSES
SELECT 1 OF THE FOLLOWING COURSES

- POL 1200 Introduction to American Politics (3 credits)
- POL 1300 Introduction to International Relations (3 credits)
- POL 1400 Introduction to Comparative Politics (3 credits)

POLITICAL SCIENCE COURSES
SELECT 1 OF THE FOLLOWING COURSES

- POL 3100 American Foreign Policy (3 credits)
- POL 3130 Asian Political Development (3 credits)
- POL 3150 Topics in Political Science (1-3 credits)
- POL 3160 Comparative European Politics (3 credits)
- POL 3170 International Relations (3 credits)
- POL 3180 International Law and Organization (3 credits)
- POL 3190 International Political Economy (3 credits)
- POL 3200 Minnesota Politics (3 credits)
- POL 3210 Public Administration (3 credits)
- POL 3230 Environmental Politics (3 credits)
- POL 3410 Legislative and Executive Relations (3 credits)
- POL 3420 Campaigns and Elections (3 credits)
- POL 4200 Constitutional Law (3 credits)

SOCIOLOGY COURSES
COMPLETE THE FOLLOWING COURSES:

- SOC 2200 Social Movements and Change (3 credits)
- SOC 3010 Social Theory (3 credits)

**II REQUIRED FIELD OF EMPHASIS**

SELECT 1 OF THE FOLLOWING COURSES
Note: Select the course not taken in the core.

- ECON 2000 Markets and Resource Allocation (3 credits)
- ECON 2100 Macroeconomics and the Business Cycle (3 credits)

SELECT 15 SEMESTER CREDITS OF ELECTIVES FROM ECONOMICS

## Social Studies, B.A. *major*
## Psychology Emphasis

**Note:** A minimum of 22 semester credits used to meet course requirements in I and II must be completed at Bemidji State University. No course grade below a C may be used to meet these requirements and a minimum GPA of 2.50 in this major is required for graduation. Students who desire a second field of emphasis are to consider completion a minor or a second major in that field. Such action may complement and increase the marketability of this major.

Required Credits: 48
Required GPA: 2.50

**I REQUIRED CORE CURRICULUM**

CAPSTONE COURSE
COMPLETE THE FOLLOWING COURSE:

- POL 4500 Thesis and Career Preparation (3 credits)

ECONOMICS COURSES
SELECT 1 OF THE FOLLOWING COURSES:

- ECON 2000 Markets and Resource Allocation (3 credits)
- ECON 2100 Macroeconomics and the Business Cycle (3 credits)

GEOGRAPHY COURSES
SELECT 1 OF THE FOLLOWING COURSES

- GEOG 2100 Introduction to Physical Geography (3 credits)
- GEOG 2200 Introduction to Human Geography (3 credits)

GEOGRAPHY COURSES
SELECT 1 OF THE FOLLOWING COURSES:

- GEOG 3410 Geography of North America (3 credits)
- GEOG 3800 Regional Geography (1-3 credits)
- GEOG 3810 Geography of Europe (3 credits)
- GEOG 3820 Geography of East, South, and Southeast Asia (3 credits)
- GEOG 3840 Geography of Africa (3 credits)

UPPER DIVISION WORLD HISTORY
SELECT 1 OF THE FOLLOWING COURSES

- HST 2218 Medieval Europe (3 credits)
- HST 2228 Renaissance and Reformation Europe (3 credits)
- HST 2580 Russia (3 credits)
- HST 2600 Topics in History (3 credits)
- HST 2660 Women and History (3 credits)
- HST 2700 The History of World Religions (3 credits)
- HST 2800 Reacting to the Past (3 credits)
- HST 3159 The World at War, 1931-1945 (3 credits)
- HST 3208 Greece and Rome, 1500 BCE-500 CE (3 credits)
- HST 3258 The Roman Civil Law Tradition (3 credits)
- HST 3268 The Roman Revolution, 200 BCE-CE 14 (3 credits)
- HST 3277 Readings and Research in European History (3 credits)
- HST 3409 Colonialism and Modernization in the Non-Western World (3 credits)
- HST 3419 East Asia (3 credits)
- HST 3429 South and Southeast Asia (3 credits)
- HST 3449 Middle East (3 credits)
- HST 3459 Latin America (3 credits)

UPPER DIVISION U.S. HISTORY
SELECT 1 OF THE FOLLOWING COURSES

- HST 2600 Topics in History (3 credits)
- HST 2610 Minnesota History (3 credits)
- HST 2640 United States Diplomatic History (3 credits)
- HST 2667 Men and Women: Gender in America (3 credits)
- HST 2800 Reacting to the Past (3 credits)
- HST 3117 American Revolutionary Era, 1763-1800 (3 credits)
- HST 3128 Testing Democracy: Reform in Nineteenth-Century America (3 credits)
- HST 3137 Civil War and Reconstruction, 1844-1877 (3 credits)
- HST 3159 The World at War, 1931-1945 (3 credits)
- HST 3187 American West (3 credits)

POLITICAL SCIENCE COURSES
SELECT 1 OF THE FOLLOWING COURSES

- POL 1200 Introduction to American Politics (3 credits)
- POL 1300 Introduction to International Relations (3 credits)
- POL 1400 Introduction to Comparative Politics (3 credits)

POLITICAL SCIENCE COURSES
SELECT 1 OF THE FOLLOWING COURSES

- POL 3100 American Foreign Policy (3 credits)
- POL 3130 Asian Political Development (3 credits)
- POL 3150 Topics in Political Science (1-3 credits)
- POL 3160 Comparative European Politics (3 credits)
- POL 3170 International Relations (3 credits)
- POL 3180 International Law and Organization (3 credits)
- POL 3190 International Political Economy (3 credits)
- POL 3200 Minnesota Politics (3 credits)
- POL 3210 Public Administration (3 credits)
- POL 3230 Environmental Politics (3 credits)
- POL 3410 Legislative and Executive Relations (3 credits)
- POL 3420 Campaigns and Elections (3 credits)
- POL 4200 Constitutional Law (3 credits)

SOCIOLOGY COURSES
COMPLETE THE FOLLOWING COURSES:

- SOC 2200 Social Movements and Change (3 credits)
- SOC 3010 Social Theory (3 credits)

**II REQUIRED FIELD OF EMPHASIS**

COMPLETE THE FOLLOWING COURSE:

- PSY 1100 Introductory Psychology (4 credits)

SELECT 14 SEMESTER CREDITS OF ELECTIVES FROM PSYCHOLOGY

## Social Studies, B.A. *major*
## Econ/ Pol Sci/ Soc/ Anth: Broad Field Emphasis

**Note:** A minimum of 22 semester credits used to meet course requirements in I and II must be completed at Bemidji State University. No course grade below a C may be used to meet these requirements and a minimum GPA of 2.50 in this major is required for graduation. Students who desire a second field of emphasis are to consider completion a minor or a second major in that field. Such action

may complement and increase the marketability of this major.

Required Credits: 48
Required GPA: 2.50

**I REQUIRED CORE CURRICULUM**

CAPSTONE COURSE
COMPLETE THE FOLLOWING COURSE:

- POL 4500 Thesis and Career Preparation (3 credits)

ECONOMICS COURSES
SELECT 1 OF THE FOLLOWING COURSES:

- ECON 2000 Markets and Resource Allocation (3 credits)
- ECON 2100 Macroeconomics and the Business Cycle (3 credits)

GEOGRAPHY COURSES
SELECT 1 OF THE FOLLOWING COURSES

- GEOG 2100 Introduction to Physical Geography (3 credits)
- GEOG 2200 Introduction to Human Geography (3 credits)

GEOGRAPHY COURSES
SELECT 1 OF THE FOLLOWING COURSES:

- GEOG 3410 Geography of North America (3 credits)
- GEOG 3800 Regional Geography (1-3 credits)
- GEOG 3810 Geography of Europe (3 credits)
- GEOG 3820 Geography of East, South, and Southeast Asia (3 credits)
- GEOG 3840 Geography of Africa (3 credits)

UPPER DIVISION WORLD HISTORY
SELECT 1 OF THE FOLLOWING COURSES

- HST 2218 Medieval Europe (3 credits)
- HST 2228 Renaissance and Reformation Europe (3 credits)
- HST 2580 Russia (3 credits)
- HST 2600 Topics in History (3 credits)
- HST 2660 Women and History (3 credits)
- HST 2700 The History of World Religions (3 credits)
- HST 2800 Reacting to the Past (3 credits)
- HST 3159 The World at War, 1931-1945 (3 credits)
- HST 3208 Greece and Rome, 1500 BCE-500 CE (3 credits)
- HST 3258 The Roman Civil Law Tradition (3 credits)
- HST 3268 The Roman Revolution, 200 BCE-CE 14 (3 credits)
- HST 3277 Readings and Research in European History (3 credits)
- HST 3409 Colonialism and Modernization in the Non-Western World (3 credits)
- HST 3419 East Asia (3 credits)
- HST 3429 South and Southeast Asia (3 credits)
- HST 3449 Middle East (3 credits)
- HST 3459 Latin America (3 credits)

UPPER DIVISION U.S. HISTORY
SELECT 1 OF THE FOLLOWING COURSES

- HST 2600 Topics in History (3 credits)
- HST 2610 Minnesota History (3 credits)
- HST 2640 United States Diplomatic History (3 credits)
- HST 2667 Men and Women: Gender in America (3 credits)
- HST 2800 Reacting to the Past (3 credits)
- HST 3117 American Revolutionary Era, 1763-1800 (3 credits)
- HST 3128 Testing Democracy: Reform in Nineteenth-Century America (3 credits)
- HST 3137 Civil War and Reconstruction, 1844-1877 (3 credits)
- HST 3159 The World at War, 1931-1945 (3 credits)
- HST 3187 American West (3 credits)

POLITICAL SCIENCE COURSES
SELECT 1 OF THE FOLLOWING COURSES

- POL 1200 Introduction to American Politics (3 credits)
- POL 1300 Introduction to International Relations (3 credits)
- POL 1400 Introduction to Comparative Politics (3 credits)

POLITICAL SCIENCE COURSES
SELECT 1 OF THE FOLLOWING COURSES

- POL 3100 American Foreign Policy (3 credits)
- POL 3130 Asian Political Development (3 credits)
- POL 3150 Topics in Political Science (1-3 credits)
- POL 3160 Comparative European Politics (3 credits)
- POL 3170 International Relations (3 credits)
- POL 3180 International Law and Organization (3 credits)
- POL 3190 International Political Economy (3 credits)
- POL 3200 Minnesota Politics (3 credits)
- POL 3210 Public Administration (3 credits)
- POL 3230 Environmental Politics (3 credits)
- POL 3410 Legislative and Executive Relations (3 credits)
- POL 3420 Campaigns and Elections (3 credits)
- POL 4200 Constitutional Law (3 credits)

SOCIOLOGY COURSES
COMPLETE THE FOLLOWING COURSES:

- SOC 2200 Social Movements and Change (3 credits)
- SOC 3010 Social Theory (3 credits)

**II REQUIRED FIELD OF EMPHASIS**

REQUIRED ELECTIVES:

SELECT 3 SEMESTER CREDITS FROM ANTHROPOLOGY

SELECT 3 SEMESTER CREDITS FROM SOCIOLOGY

SELECT 3 SEMESTER CREDITS FROM POLITICAL SCIENCE

SELECT 3 SEMESTER CREDITS FROM GEOGRAPHY

SELECT 3 SEMESTER CREDITS FROM HISTORY

SELECT 3 SEMESTER CREDITS FROM ECONOMICS

SELECT 3 SEMESTER CREDITS FROM PSYCHOLOGY

**SUGGESTED SEMESTER SCHEDULE FOR SOCIAL STUDIES MAJOR, B.A.**

The following is suggested for logical and effective scheduling but can be interpreted as flexible for meeting requirements and a student's particular needs. Students should meet with the Social Studies coordinator and advisor as early as possible in their planning.

Freshman - Sophomore

- Geography and History constitute the "matrix" of Social Studies and

students should complete required core courses in these subjects first.
- Complete Liberal Education requirements

Junior-Senior

- Complete remaining core course requirements and courses for area of emphasis.
- Complete Professional Education courses
- Students pursuing the B.S. Teacher Licensure in Social Studies should complete GEOG 3460 no sooner than their junior year, preferably just prior to their student teaching.

## Social Studies, B.A. *major*
## Sociology-Anthropology Emphasis

**Note:** A minimum of 22 semester credits used to meet course requirements in I and II must be completed at Bemidji State University. No course grade below a C may be used to meet these requirements and a minimum GPA of 2.50 in this major is required for graduation. Students who desire a second field of emphasis are to consider completion a minor or a second major in that field. Such action may complement and increase the marketability of this major.

Required Credits: 48
Required GPA: 2.50

**I REQUIRED CORE CURRICULUM**

CAPSTONE COURSE
COMPLETE THE FOLLOWING COURSE:

- POL 4500 Thesis and Career Preparation (3 credits)

ECONOMICS COURSES
SELECT 1 OF THE FOLLOWING COURSES:

- ECON 2000 Markets and Resource Allocation (3 credits)
- ECON 2100 Macroeconomics and the Business Cycle (3 credits)

GEOGRAPHY COURSES
SELECT 1 OF THE FOLLOWING COURSES

- GEOG 2100 Introduction to Physical Geography (3 credits)
- GEOG 2200 Introduction to Human Geography (3 credits)

GEOGRAPHY COURSES
SELECT 1 OF THE FOLLOWING COURSES:

- GEOG 3410 Geography of North America (3 credits)
- GEOG 3800 Regional Geography (1-3 credits)
- GEOG 3810 Geography of Europe (3 credits)
- GEOG 3820 Geography of East, South, and Southeast Asia (3 credits)
- GEOG 3840 Geography of Africa (3 credits)

UPPER DIVISION WORLD HISTORY
SELECT 1 OF THE FOLLOWING COURSES

- HST 2218 Medieval Europe (3 credits)
- HST 2228 Renaissance and Reformation Europe (3 credits)
- HST 2580 Russia (3 credits)
- HST 2600 Topics in History (3 credits)
- HST 2660 Women and History (3 credits)
- HST 2700 The History of World Religions (3 credits)
- HST 2800 Reacting to the Past (3 credits)
- HST 3159 The World at War, 1931-1945 (3 credits)
- HST 3208 Greece and Rome, 1500 BCE-500 CE (3 credits)
- HST 3258 The Roman Civil Law Tradition (3 credits)
- HST 3268 The Roman Revolution, 200 BCE-CE 14 (3 credits)
- HST 3277 Readings and Research in European History (3 credits)
- HST 3409 Colonialism and Modernization in the Non-Western World (3 credits)
- HST 3419 East Asia (3 credits)
- HST 3429 South and Southeast Asia (3 credits)
- HST 3449 Middle East (3 credits)
- HST 3459 Latin America (3 credits)

UPPER DIVISION U.S. HISTORY
SELECT 1 OF THE FOLLOWING COURSES

- HST 2600 Topics in History (3 credits)
- HST 2610 Minnesota History (3 credits)
- HST 2640 United States Diplomatic History (3 credits)
- HST 2667 Men and Women: Gender in America (3 credits)
- HST 2800 Reacting to the Past (3 credits)
- HST 3117 American Revolutionary Era, 1763-1800 (3 credits)
- HST 3128 Testing Democracy: Reform in Nineteenth-Century America (3 credits)
- HST 3137 Civil War and Reconstruction, 1844-1877 (3 credits)
- HST 3159 The World at War, 1931-1945 (3 credits)
- HST 3187 American West (3 credits)

POLITICAL SCIENCE COURSES
SELECT 1 OF THE FOLLOWING COURSES

- POL 1200 Introduction to American Politics (3 credits)
- POL 1300 Introduction to International Relations (3 credits)
- POL 1400 Introduction to Comparative Politics (3 credits)

POLITICAL SCIENCE COURSES
SELECT 1 OF THE FOLLOWING COURSES

- POL 3100 American Foreign Policy (3 credits)
- POL 3130 Asian Political Development (3 credits)
- POL 3150 Topics in Political Science (1-3 credits)
- POL 3160 Comparative European Politics (3 credits)
- POL 3170 International Relations (3 credits)
- POL 3180 International Law and Organization (3 credits)
- POL 3190 International Political Economy (3 credits)
- POL 3200 Minnesota Politics (3 credits)
- POL 3210 Public Administration (3 credits)
- POL 3230 Environmental Politics (3 credits)
- POL 3410 Legislative and Executive Relations (3 credits)
- POL 3420 Campaigns and Elections (3 credits)
- POL 4200 Constitutional Law (3 credits)

SOCIOLOGY COURSES
COMPLETE THE FOLLOWING COURSES:

- SOC 2200 Social Movements and Change (3 credits)
- SOC 3010 Social Theory (3 credits)

**II REQUIRED FIELD OF EMPHASIS**

SELECT 18 SEMESTER CREDITS OF ELECTIVES FROM SOCIOLOGY
AND ANTHROPOLOGY

## Social Studies, B.A. *major*
## Geography Emphasis

**Note:** A minimum of 22 semester credits used to meet course requirements in I and II must be completed at Bemidji State University. No course grade below a C may be used to meet these requirements and a minimum GPA of 2.50 in this major is required for graduation. Students who desire a second field of emphasis are to consider completion a minor or a second major in that field. Such action may complement and increase the marketability of this major.

Required Credits: 48
Required GPA: 2.50

**I REQUIRED CORE CURRICULUM**

CAPSTONE COURSE
COMPLETE THE FOLLOWING COURSE:

- POL 4500 Thesis and Career Preparation (3 credits)

ECONOMICS COURSES
SELECT 1 OF THE FOLLOWING COURSES:

- ECON 2000 Markets and Resource Allocation (3 credits)
- ECON 2100 Macroeconomics and the Business Cycle (3 credits)

GEOGRAPHY COURSES
SELECT 1 OF THE FOLLOWING COURSES

- GEOG 2100 Introduction to Physical Geography (3 credits)
- GEOG 2200 Introduction to Human Geography (3 credits)

GEOGRAPHY COURSES
SELECT 1 OF THE FOLLOWING COURSES:

- GEOG 3410 Geography of North America (3 credits)
- GEOG 3800 Regional Geography (1-3 credits)
- GEOG 3810 Geography of Europe (3 credits)
- GEOG 3820 Geography of East, South, and Southeast Asia (3 credits)
- GEOG 3840 Geography of Africa (3 credits)

UPPER DIVISION WORLD HISTORY
SELECT 1 OF THE FOLLOWING COURSES

- HST 2218 Medieval Europe (3 credits)
- HST 2228 Renaissance and Reformation Europe (3 credits)
- HST 2580 Russia (3 credits)
- HST 2600 Topics in History (3 credits)
- HST 2660 Women and History (3 credits)
- HST 2700 The History of World Religions (3 credits)
- HST 2800 Reacting to the Past (3 credits)
- HST 3159 The World at War, 1931-1945 (3 credits)
- HST 3208 Greece and Rome, 1500 BCE-500 CE (3 credits)
- HST 3258 The Roman Civil Law Tradition (3 credits)
- HST 3268 The Roman Revolution, 200 BCE-CE 14 (3 credits)
- HST 3277 Readings and Research in European History (3 credits)
- HST 3409 Colonialism and Modernization in the Non-Western World (3 credits)
- HST 3419 East Asia (3 credits)
- HST 3429 South and Southeast Asia (3 credits)
- HST 3449 Middle East (3 credits)
- HST 3459 Latin America (3 credits)

UPPER DIVISION U.S. HISTORY
SELECT 1 OF THE FOLLOWING COURSES

- HST 2600 Topics in History (3 credits)
- HST 2610 Minnesota History (3 credits)
- HST 2640 United States Diplomatic History (3 credits)
- HST 2667 Men and Women: Gender in America (3 credits)
- HST 2800 Reacting to the Past (3 credits)
- HST 3117 American Revolutionary Era, 1763-1800 (3 credits)
- HST 3128 Testing Democracy: Reform in Nineteenth-Century America (3 credits)
- HST 3137 Civil War and Reconstruction, 1844-1877 (3 credits)
- HST 3159 The World at War, 1931-1945 (3 credits)
- HST 3187 American West (3 credits)

POLITICAL SCIENCE COURSES
SELECT 1 OF THE FOLLOWING COURSES

- POL 1200 Introduction to American Politics (3 credits)
- POL 1300 Introduction to International Relations (3 credits)
- POL 1400 Introduction to Comparative Politics (3 credits)

POLITICAL SCIENCE COURSES
SELECT 1 OF THE FOLLOWING COURSES

- POL 3100 American Foreign Policy (3 credits)
- POL 3130 Asian Political Development (3 credits)
- POL 3150 Topics in Political Science (1-3 credits)
- POL 3160 Comparative European Politics (3 credits)
- POL 3170 International Relations (3 credits)
- POL 3180 International Law and Organization (3 credits)
- POL 3190 International Political Economy (3 credits)
- POL 3200 Minnesota Politics (3 credits)
- POL 3210 Public Administration (3 credits)
- POL 3230 Environmental Politics (3 credits)
- POL 3410 Legislative and Executive Relations (3 credits)
- POL 3420 Campaigns and Elections (3 credits)
- POL 4200 Constitutional Law (3 credits)

SOCIOLOGY COURSES
COMPLETE THE FOLLOWING COURSES:

- SOC 2200 Social Movements and Change (3 credits)
- SOC 3010 Social Theory (3 credits)

**II REQUIRED FIELD OF EMPHASIS**

SELECT 18 SEMESTER CREDITS OF ELECTIVES FROM GEOGRAPHY

**SUGGESTED SEMESTER SCHEDULE FOR SOCIAL STUDIES MAJOR, B.A.**

The following is suggested for logical and effective scheduling but can be interpreted as flexible for meeting requirements and a student's particular needs. Students should meet with the Social Studies coordinator and advisor as early as possible in their planning.

Freshman - Sophomore

- Geography and History constitute the "matrix" of Social Studies and students should complete required core courses in these subjects first.
- Complete Liberal Education requirements

Junior-Senior

- Complete remaining core course requirements and courses for area of emphasis.
- Complete Professional Education courses

- Students pursuing the B.S. Teacher Licensure in Social Studies should complete GEOG 3460 no sooner than their junior year, preferably just prior to their student teaching.

## Social Studies *minor*

Required Credits: 27
Required GPA: 2.00

**I REQUIRED COURSES**

SELECT 1 OF THE FOLLOWING COURSES:

- GEOG 2100 Introduction to Physical Geography (3 credits)
- GEOG 2200 Introduction to Human Geography (3 credits)

SELECT 1 OF THE FOLLOWING COURSES:

- ECON 2000 Markets and Resource Allocation (3 credits)
- GEOG 2300 Economic Geography (3 credits)

COMPLETE THE FOLLOWING 3 COURSES:

- HST 1304 World History I, Prehistory-1500 (3 credits)
- HST 1305 World History II, 1500-Present (3 credits)
- POL 1200 Introduction to American Politics (3 credits)

**II REQUIRED ELECTIVES**

SELECT 10 SEMESTER CREDITS FROM AT LEAST 2 OF THE FOLLOWING DISCIPLINES:

ANTHROPOLOGY

ECONOMICS

HISTORY

POLITICAL SCIENCE

SOCIOLOGY

# Social Work

The social work profession is dedicated to improving the quality of life for individuals, groups, and communities. It addresses a variety of human needs in the context of complex personal and social situations, and promotes the positive use of resources. Social work settings include rural, suburban, and urban communities in public or private social service agencies, such as county social service agencies, schools, hospitals, nursing homes, residential youth programs, domestic abuse and sexual assault programs, adult day care, hospice, chemical dependency agencies, mental health organizations, family counseling programs, correctional programs, adoption and foster care agencies, and community outreach and social justice programs.

The Social Work program emphasizes culturally responsive generalist social work practice and promotes an understanding of human interactions within the social environment. Content areas include social work values and ethics, diversity, promotion of social and economic justice, populations-at-risk, human behavior in the social environment, social welfare policy and services, social work practice, research, field placements, and an international perspective. Graduates of the program are prepared for entry-level social work practice and for graduate study.

The Social Work program offers a number of special activities and opportunities, including the following:

- B.S.W. Child Welfare Project -- stipends
- Alcohol and Drug Counselor certification Program Report
- Chemical Dependency Minor
- Mexico Consortium -- Social Work in a Latin American Context
- Social Work Program Field Expeditions

As a result of the Social Work program's accreditation by the Council of Social Work Education, graduates of the program are often eligible for advanced standing status in graduate social work programs AND are eligible to apply for social work licensure in Minnesota and other states. Successful application for social work licensure in Minnesota enables graduates to apply for school social work licensure in the state as well.

Chemical Dependency: The Social Work program offers both a minor and the Licensed Alcohol and Drug Counselor certification. The 18-credit minor provides students with the opportunity to expand their knowledge in chemical dependency, but does not prepare students for educational eligibility for Alcohol and Drug Counselor licensure (LADC) application. The certificate in Chemical Dependency requires a four-year degree, 270 hour classroom training, and an 880 hour internship required for LADC application.

**Licensure:**

**Social Work (Minnesota Board of Social Work):** An applicant must be a graduate of a Council of Social Work accredited program and pass the written licensure examination.

Minnesota Board of Social Work Licensure
2829 University Avenue SE, Suite 340
Minneapolis, MN 55414-3239
Toll free: 888-234-1320
Email: social.work@state.mn.us
Web: www.socialwork.state.mn.us

**School Social Work (Minnesota Board of Teaching):** An applicant must have a bachelor's degree in social work from a Council on Social Work Education accredited program, be licensed or eligible for licensure by the Minnesota Board of Social Work, and submit an application to the Board of Teaching for licensure in school social work. School social workers are required to be licensed by both the Minnesota Board of Social Work and the Board of Teaching.

**Alcohol and Drug Counselor (Minnesota Health Department, Health Occupations Program):** An applicant for Alcohol and Drug Counselor licensure (LADC) in Minnesota must have completed a four-year degree, 270 hours of classroom training, and an 880 hour internship in the field as well as pass written and oral licensure tests. (See Chemical Dependency Minor and Certificate sections for contact information.)

**Programs**

- Social Work, B.S. *major*
- Chemical Dependency *minor*
- Alcohol and Drug Counselor Certificate *cert*
- School Social Work Preparation and Licensure *cert*

**Career Directions**

Chemical Dependency: in-patient, out-patient, half-way houses, prevention
Community nonprofit organizations: youth, families, women, ethnic groups, elderly
County and Tribal Human Services: child welfare, adults
Criminal Justice: probation, juvenile centers, truancy intervention
Disabled: advocacy, counseling, case management
Elderly: nursing homes, adult day centers, senior centers
Macro Practice: Social justice and social action programs
Medical: hospitals, hospice, clinics, long term care
Mental health centers: in-home, counseling, case management
Schools: special education, chemical dependency, mental health counseling

Also: Graduate Study

**Preparation**

*Recommended High School Courses*

Psychology

Human Development

Biology

Social Science
Sociology
Health Careers

## Social Work, B.S. *major*

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Required Credits: 69
Required GPA: 2.50

All individual social work courses must reflect a letter grade of a C or better.

**I REQUIRED CORE COURSES**

SELECT 1 OF THE FOLLOWING COURSES:

- CRJS 3201 Research Methods and Statistics for Criminal Justice (4 credits)
- PSY 3401 Basic Statistics for Research (4 credits)
- SOC 3001 Social Statistics (3 credits)

COMPLETE THE FOLLOWING COURSES:

- SOWK 2120 Introduction to Social Welfare (3 credits)
- SOWK 2140 Field Experience in Social Work (3 credits)
- SOWK 2160 Human Behavior in the Social Environment I (3 credits)
- SOWK 3160 Human Behavior in the Social Environment II (3 credits)
- SOWK 3201 Family: Dynamics and Intervention (3 credits)
- SOWK 3260 Social Welfare Policy (3 credits)
- SOWK 3551 Generalist Practice I (3 credits)
- SOWK 3552 Generalist Practice 2 (3 credits)
- SOWK 3553 Generalist Practice 3 (3 credits)
- SOWK 4450 Social Work Research Seminar (3 credits)
- SOWK 4880 Internship Orientation (1 credit)

COMPLETE THE FOLLOWING COURSE:

- SOWK 4970 Internship (12 credits)

**II REQUIRED SUPPORTING FOUNDATION COURSES**

COMPLETE THE FOLLOWING COURSES:

- BIOL 1110 Human Biology (4 credits)
- POL 1200 Introduction to American Politics (3 credits)
- PSY 1100 Introductory Psychology (4 credits)
- PSY 2217 Abnormal Psychology (4 credits)
- SOWK 2110 Intercultural Communication (3 credits)
- SOWK 2130 Interpersonal Relations (2 credits)

**III DIVERSITY REQUIREMENT**

SELECT 1 OF THE FOLLOWING COURSES:

- ANTH 1110 Cultural Anthropology (3 credits)
- HST 2700 The History of World Religions (3 credits)
- INST 1107 Introduction to Turtle Island (3 credits)
- SOC 2230 Race and Ethnic Relations (3 credits)
- SOWK 2310 The American Indian: Social Welfare Perspective (3 credits)

## Chemical Dependency *minor*

Required Credits: 20
Required GPA: 2.00

**REQUIRED COURSES**

COMPLETE THE FOLLOWING COURSES:

- CHEM 2130 Chemistry of Drugs (3 credits)
- PSY 1100 Introductory Psychology (4 credits)
- PSY 2217 Abnormal Psychology (4 credits)
- SOWK 2030 Chemical Dependency Theories and Assessment (3 credits)
- SOWK 3201 Family: Dynamics and Intervention (3 credits)

- SOWK 3330 Chemical Dependency: Prevention and Intervention (3 credits)

## Alcohol and Drug Counselor Certificate *cert*

Required Credits: 51
Required GPA: 2.50

**REQUIRED COURSES**

COMPLETE THE FOLLOWING COURSES:

- CHEM 2130 Chemistry of Drugs (3 credits)
- PSY 1100 Introductory Psychology (4 credits)
- PSY 2217 Abnormal Psychology (4 credits)
- SOWK 2030 Chemical Dependency Theories and Assessment (3 credits)
- SOWK 3201 Family: Dynamics and Intervention (3 credits)
- SOWK 3330 Chemical Dependency: Prevention and Intervention (3 credits)
- SOWK 4880 Internship Orientation (1 credit)

SELECT 1 OF THE FOLLOWING COURSES:

- SOWK 3551 Generalist Practice I (3 credits)
- PSY 3332 Counseling and Crisis Interventions (4 credits)

SELECT 1 OF THE FOLLOWING COURSES:

- SOWK 3552 Generalist Practice 2 (3 credits)
- PSY 3337 Group Processes (3 credits)

COMPLETE 24 CREDITS IN THE FOLLOWING COURSE:

- SOWK 4970 Internship (12 credits)

## School Social Work Preparation and Licensure *cert*

Minnesota recognizes the bachelor's degree in social work from a Council on Social Work Education (CSWE) accredited institution (the BSU Social Work program is accredited by CSWE) as preparation for school social work licensure by the Department of Education (Board of Teaching).

The requirements to practice school social work licensure in Minnesota are:

A baccalaureate degree or a master's degree in social work from a Council on Social Work Education (CSWE) accredited program;
Licensure from the Minnesota Board of Social Work;
Licensure from the Department of Education as a Teacher/Related Service.
Social Work students should contact the Records and Registration Office at BSU during their senior year for a Board of Teaching licensure application. This application should be completed and submitted with the graduation plans to the Records and Registration Office.

The Social Work faculty encourages students to take additional courses in education along with SOWK 3790 Social Work in the School System to be well prepared for school social work practice.

- Licensing information email address: mde.educator-licensing@state.mn.us
- Licensing website link: http://education.state.mn.us/MDE/EdExc/Licen/index.html

Application Process:
You will need to apply online. Go to http://education.state.mn.us ; select Quick links then Licensing. In the center of the page click on Online Licensing System and then select Create An Account if you do not have one. Then follow the prompts through you will click on first time and then a list of license types will come up you need to click on the type of license you are applying for. Then follow the prompts through. You will be prompted to print a document check list and a verification form and then you will attach all your supporting documents together and send it in all together in one packet.If you are renewing a license enter your User ID and password, then you can renew.

## Social Work Courses

**SOWK 2030 Chemical Dependency Theories and Assessment (3 credits)**
Examines various theoretical approaches to and models for understanding the impact of chemical dependency on the individual, family, and community. Attention paid to the twelve core functions along with the development of knowledge and skills related to assessment.

**SOWK 2110 Intercultural Communication (3 credits)**
Designed to enable students to develop awareness, knowledge and skills for sensitive and effective intercultural communication on the international scene as well as with core-cultures in America. The course is particularly useful for students who are preparing to work with cultures other than their own, including: the human services field, business, marketing, languages, pre-professional programs and others. Liberal Education Goal Areas 7 & 8.

**SOWK 2120 Introduction to Social Welfare (3 credits)**
Introduces students to American social welfare institutions, the social problems with which these institutions deal, and the profession of social work. Considerable attention is paid to the historical and philosophical bases of various types of social welfare services. Other topics emphasized include the intervention methods used by social workers and the special needs of oppressed groups in the society. The final section of the course deals with the career paths in social work.

**SOWK 2130 Interpersonal Relations (2 credits)**
The course is intended to assess and develop basic interpersonal skills necessary to use self effectively as a practitioner. Teaches students to understand, assess, apply, and evaluate the basic skills of a helping relationship. Prerequisite: Admission to the Social Work program.

**SOWK 2140 Field Experience in Social Work (3 credits)**
Provides students with their first practical experience in the field of social work and introduces them to basic theoretical models used in social work practice, including generalist approach, ecosystems, cultural competence, and human diversity. Prerequisite: Admission to the program.

**SOWK 2160 Human Behavior in the Social Environment I (3 credits)**
Designed to enable students to explain and assess individual, family, and group system behavior as generalist social work practitioners, utilizing the cultural competence continuum and a strengths perspective within an ecosystems approach across the following dimensions: biological, spiritual, psychological, cognitive, socioeconomic, cultural, aesthetic, and gender. Examines traditional and alternate theories of development across the life span of individual, family, and group systems. Attention is given to the influence of paradigms on shaping human behavior. This is the first course in a two-course combination in HBSE, providing the foundation for HBSE II. Prerequisites: BIOL 1110, PSY 1100, and admission to the Social Work program.

**SOWK 2310 The American Indian: Social Welfare Perspective (3 credits)**
Course surveys the various socio-economic and political problems faced by the American Indian, as well as the cultural conflicts and legal aspects of efforts to deal with those problems in a social welfare and social policy context.

**SOWK 3030 Family Violence (3 credits)**
A study of current theory and research related to the problem of family violence and responses to this problem including: premarital violence, spousal violence, and violence in parent-child relationships including sexual abuse and violence against the vulnerable adult. This course should be of particular value to those preparing for a career in human services. Also SOC 3030.

**SOWK 3110 Parent-Child Relations in Contemporary Family Forms (3 credits)**
Designed to enable the student to understand, organize, and apply knowledge of parent-child relations in contemporary family forms including emphasis on a) a systems and cultural perspective, b) changing family configurations, c) dynamics of parent-child relations, d) special parent-child problems such as the abused child, etc., and e) work with professionals and other concerned individuals. (This is a service course for education majors.)

**SOWK 3160 Human Behavior in the Social Environment II (3 credits)**
Designed to enable students to explain and assess group, organization, and community behavior/life span from an eco-systems perspective using a generalist social work practice approach. Students integrate the cultural competence continuum and the strengths perspective across the diversity dimensions of large human systems: group, organization, community, and society. Students also critically consider and examine models of large system development - group, organization, and community - as well as the relationships and interconnections between and among micro and macro systems. Prerequisites: POL 1200 and SOWK 2160.

**SOWK 3201 Family: Dynamics and Intervention (3 credits)**
Introduction to knowledge, skills, and values related to working with families as small groups. Students learn and apply tools integral to assessment and intervention strategies of generalist social work practice with families, including the strengths perspective, human diversity framework, family systems, cultural competence, and the ecosystems approach. Students critically examine family systems, elements of family well being, level of need and intervention models, ethics, and practice implications particularly related to contemporary social welfare issues. Prerequisite: SOWK 2160 for majors, PSY 1100 for nonmajors.

**SOWK 3260 Social Welfare Policy (3 credits)**
Students develop an understanding of the history and role of public policy as related to social work practice, societal values, and issues central to the development of public policy in the United States. Students critically examine contemporary and controversial social welfare issues, assess U.S. policy development and evaluation practices, understand the global interconnectedness of U.S. policy, and develop social justice advocacy skills for vulnerable populations. Prerequisite: Admission to the Social Work program, and POL 1200.

**SOWK 3330 Chemical Dependency: Prevention and Intervention (3 credits)**
Addresses the continuum of care in chemical dependency: prevention, intervention, treatment, and recovery. Attention given to the twelve core functions in relationship to the treatment planning process, case management, and intervention strategies. Covers ethical and legal considerations, such as involuntary commitment, patient rights, and professional licensures, as well as issues related to practice sensitivity and responsiveness to culture, gender, and age. Prerequisite: PSY 1100 and SOWK 2030, or consent of instructor.

**SOWK 3551 Generalist Practice I (3 credits)**
Introduces and applies models for establishing and engaging in the professional helping relationship with individuals. Students learn, practice, and critically examine knowledge, skills, and values related to generalist social work practice with individuals: assessment, engagement, crisis intervention, counseling, evaluation, and ethical practice. Emphasis is on cultural competence in social work practice. Prerequisite: Admission to the program.

**SOWK 3552 Generalist Practice 2 (3 credits)**
Introduces and applies models for establishing and engaging in the professional helping relationship with support and treatment groups. Students learn, practice, and critically examine knowledge, skills, and values related to group processes: planning, assessment, facilitation, leadership, evaluation, role development, and ethical practice. Emphasis is on cultural competence in social work practice with groups. Prerequisite: SOWK 2130 and SOWK 3551.

**SOWK 3553 Generalist Practice 3 (3 credits)**
Introduces and applies models for establishing and engaging in the professional helping relationship with task groups, organizations, and communities focusing on systems change: assessment and engagement, intervention, advocacy, leadership, community organizing and strategic planning to create change. Students learn and practice cause advocacy and grantwriting skills. Emphasis is on cultural competence and the application of ethical group practice in task groups, community organizing, and cause advocacy.

**SOWK 3760 Mental Health Social Work (2 credits)**
Designed to enable the student to develop a knowledge base for beginning social work practice in the field of mental health. Students are introduced to theories of mental health and concepts of: mental health-illness, determination of needs, service systems, scope and variety of interventive methods, role of interdisciplinary team, evaluation, supervision, and impact of discrimination. Prerequisite: SOWK 2120 or consent of instructor. (Might not be offered every year.)

**SOWK 3780 Family And Child Welfare (3 credits)**
Overview of historical and contemporary child welfare practice primarily in the public sector, including supportive, supplemental, and substitute services. Emphasis is on issues such as family-centered practice, family preservation, kinship care, permanency planning, and cultural competence related to the assessment of and intervention with vulnerable families and children. Prerequisite: SOWK 2120 or consent of instructor. (Might not be offered every year.)

**SOWK 3790 Social Work In The School System (2 credits)**
Designed to enable the student to understand and apply social work practice in the public school setting including a systems view of public education, the impact of diversity/oppression, and various services to pupils, families, school personnel and community. Prerequisite: SOWK 2120 or consent of instructor.

**SOWK 3830 Gerontology: Social Work Perspectives (2 credits)**
Enables students to understand adult development and aging and to apply this knowledge to social work practice. Theories of aging are examined and applied to practice assessment and intervention strategies. Focuses on areas of particular relevance to practice with older persons in terms of expected life transitions and accompanying challenges (retirement, family relationships, etc.) and life crises and problems (loss and dependency, addictions, abuse and neglect, Alzheimer's). Impact of ageism, diversity, and physical, psychological, and social issues and changes in the aging process. Accompanying health, social, and family needs; the relationship of public policy to meeting these needs; and the development and delivery of services. Prerequisite: For Social Work majors: SOWK 2120 or consent of instructor. (Might not be offered every year.)

**SOWK 4310 Grant Writing (2 credits)**
An application course designed to teach the mechanics of successful grant writing. It addresses the full continuum of the grant writing process from defining the grant idea, identifying grant sources, writing and submitting the grant application, and managing the grant award. Addresses similarities and differences between public and private funding. Emphasizes skill development in the areas of writing and submitting a grant application, public speaking skills, and ethical issues. (Might not be offered every year.)

**SOWK 4450 Social Work Research Seminar (3 credits)**
This course is a capstone research seminar for social work majors. Students are introduced to the basic concepts and procedures of social work research and learn the quantitative and qualitative research approaches that are common to the social work profession and the social sciences. Students will critically examine, interpret, and utilize research findings in relation to everyday social work practice through the application of a research project. Prerequisite: CRJS 3201 or PSY 3402 or SOC 3001 or STAT 3660.

**SOWK 4880 Internship Orientation (1 credit)**
Prepares social work students for the internship experience. Provides students with the information needed for appropriate internship placement. This course should be taken during the semester immediately preceding the registration in SOWK 4970.

**SOWK 4970 Internship (12 credits)**
When taken as Internship in Social Work the following description applies: A one semester block (480 clock hours) placement in a public or private social service organization, this internship is a senior capstone course focused on integrating practice experience with theory. Students are expected to demonstrate their social work knowledge, values, and skills through hands-on experience. Students will also participate in a seminar to discuss their internship experiences at the micro, mezzo, and macro levels of practice. Prerequisites: Completion of all courses in the major with a 2.50 GPA in the major. Graded Satisfactory/Unsatisfactory only. When taken as Internship in Chemical Dependency the following description applies. This two-semester, 880-hour internship prepares students to complete the chemical dependency certificate in preparation for applying for licensure in Minnesota. Students are placed in chemical dependency agencies and are evaluated in terms of their knowledge and skills in the 12 core functions. Prerequisite: Requires completion of all courses in the certificate with a 2.50 GPA in the certificate.

## All-University Courses

The course numbers listed below, not always included in the semester class schedule, may be registered for by consent of the advisor, instructor, or department chair, or may be assigned by the department when warranted. Individual registration requires previous arrangement by the student and the completion of any required form or planning outline as well as any prerequisites.

1910, 2910, 3910, 4910 DIRECTED INDEPENDENT STUDY
1920, 2920, 3920, 4920 DIRECTED GROUP STUDY
1930, 2930, 3930, 4930 EXPERIMENTAL COURSE
1940, 2940, 3940, 4940 IN-SERVICE COURSE
1950, 2950, 3950, 4950 WORKSHOP, INSTITUTE, TOUR
1960, 2960, 3960, 4960 SPECIAL PURPOSE INSTRUCTION
1970, 2970, 3970, 4970 INTERNSHIP
1980, 2980, 3980, 4980 RESEARCH
1990, 2990, 3990, 4990 THESIS

# Sociology

Broadly speaking, sociologists study social life, social change, and the social causes and consequences of human behavior. Sociology majors acquire a broad knowledge of the social structural world (i.e., social inequality, patterns of behavior, forces of social change and resistance, and how social structures work). They also develop a range of research skills, including analyzing and interpreting information, collecting and organizing detailed research notes into a logical presentation, communicating findings both orally and in writing, and using a computer for data processing and analysis.

Employers look for people with the skills and knowledge that the undergraduate sociology degree provides. Some career options for students to consider are in the areas of human services, criminal justice, education, government, social science research, environment, and business.

**Programs**

- Social Studies, B.A. (Sociology-Anthropology Emphasis)*major*
- Sociology, B.A. *major*
- Sociology *minor*

**Career Directions**

- Business
  Human Resources -- Recruiting, Training, and Development
  Management
  Marketing
  Office Administration
  Public Relations
  Sales
- Criminal Justice
  Corrections
  Rehabilitation
  Judiciary
  Law Enforcement
- Education
  Research
  Teaching
- Environment
  Advocacy Groups and Organizations
  Consulting Firms
  Environmental Periodicals
  Health Agencies
  Waste Management
- Government
  City Planning
  Demography
  Law Enforcement
  Policy Analysis
  Program Development Human Services
  Public Administration
  Research
  Social Statistics
- Human Services
  Administration
  Advocacy
  Case Management
  Counseling
  Mental Health Services
  Programming
- Social Science Research
  Data Analysis
  Demography
  Information Sourcing
  Market Research
  Research
- Also: Graduate Study

**Preparation**

*Recommended High School Courses*

Psychology

Social Research

Sociology

## Social Studies, B.A. *major*
## Sociology-Anthropology Emphasis

**Note:** A minimum of 22 semester credits used to meet course requirements in I and II must be completed at Bemidji State University. No course grade below a C may be used to meet these requirements and a minimum GPA of 2.50 in this major is required for graduation. Students who desire a second field of emphasis are to consider completion a minor or a second major in that field. Such action may complement and increase the marketability of this major.

Required Credits: 48
Required GPA: 2.50

**I REQUIRED CORE CURRICULUM**

CAPSTONE COURSE
COMPLETE THE FOLLOWING COURSE:

- POL 4500 Thesis and Career Preparation (3 credits)

ECONOMICS COURSES
SELECT 1 OF THE FOLLOWING COURSES:

- ECON 2000 Markets and Resource Allocation (3 credits)
- ECON 2100 Macroeconomics and the Business Cycle (3 credits)

GEOGRAPHY COURSES
SELECT 1 OF THE FOLLOWING COURSES

- GEOG 2100 Introduction to Physical Geography (3 credits)
- GEOG 2200 Introduction to Human Geography (3 credits)

GEOGRAPHY COURSES
SELECT 1 OF THE FOLLOWING COURSES:

- GEOG 3410 Geography of North America (3 credits)
- GEOG 3800 Regional Geography (1-3 credits)
- GEOG 3810 Geography of Europe (3 credits)
- GEOG 3820 Geography of East, South, and Southeast Asia (3 credits)
- GEOG 3840 Geography of Africa (3 credits)

UPPER DIVISION WORLD HISTORY
SELECT 1 OF THE FOLLOWING COURSES

- HST 2218 Medieval Europe (3 credits)
- HST 2228 Renaissance and Reformation Europe (3 credits)
- HST 2580 Russia (3 credits)
- HST 2600 Topics in History (3 credits)
- HST 2660 Women and History (3 credits)
- HST 2700 The History of World Religions (3 credits)
- HST 2800 Reacting to the Past (3 credits)
- HST 3159 The World at War, 1931-1945 (3 credits)
- HST 3208 Greece and Rome, 1500 BCE-500 CE (3 credits)
- HST 3258 The Roman Civil Law Tradition (3 credits)
- HST 3268 The Roman Revolution, 200 BCE-CE 14 (3 credits)
- HST 3277 Readings and Research in European History (3 credits)
- HST 3409 Colonialism and Modernization in the Non-Western World (3 credits)
- HST 3419 East Asia (3 credits)
- HST 3429 South and Southeast Asia (3 credits)
- HST 3449 Middle East (3 credits)
- HST 3459 Latin America (3 credits)

UPPER DIVISION U.S. HISTORY
SELECT 1 OF THE FOLLOWING COURSES

- HST 2600 Topics in History (3 credits)
- HST 2610 Minnesota History (3 credits)
- HST 2640 United States Diplomatic History (3 credits)
- HST 2667 Men and Women: Gender in America (3 credits)
- HST 2800 Reacting to the Past (3 credits)
- HST 3117 American Revolutionary Era, 1763-1800 (3 credits)
- HST 3128 Testing Democracy: Reform in Nineteenth-Century America (3 credits)
- HST 3137 Civil War and Reconstruction, 1844-1877 (3 credits)
- HST 3159 The World at War, 1931-1945 (3 credits)
- HST 3187 American West (3 credits)

POLITICAL SCIENCE COURSES
SELECT 1 OF THE FOLLOWING COURSES

- POL 1200 Introduction to American Politics (3 credits)
- POL 1300 Introduction to International Relations (3 credits)
- POL 1400 Introduction to Comparative Politics (3 credits)

POLITICAL SCIENCE COURSES
SELECT 1 OF THE FOLLOWING COURSES

- POL 3100 American Foreign Policy (3 credits)
- POL 3130 Asian Political Development (3 credits)
- POL 3150 Topics in Political Science (1-3 credits)
- POL 3160 Comparative European Politics (3 credits)
- POL 3170 International Relations (3 credits)
- POL 3180 International Law and Organization (3 credits)
- POL 3190 International Political Economy (3 credits)
- POL 3200 Minnesota Politics (3 credits)
- POL 3210 Public Administration (3 credits)
- POL 3230 Environmental Politics (3 credits)
- POL 3410 Legislative and Executive Relations (3 credits)
- POL 3420 Campaigns and Elections (3 credits)
- POL 4200 Constitutional Law (3 credits)

SOCIOLOGY COURSES
COMPLETE THE FOLLOWING COURSES:

- SOC 2200 Social Movements and Change (3 credits)
- SOC 3010 Social Theory (3 credits)

**II REQUIRED FIELD OF EMPHASIS**

SELECT 18 SEMESTER CREDITS OF ELECTIVES FROM SOCIOLOGY
AND ANTHROPOLOGY

## Sociology, B.A. *major*

Required Credits: 36
Required GPA: 2.25

**I REQUIRED COURSES**

COMPLETE THE FOLLOWING COURSES:

- SOC 1104 Society and Social Issues (3 credits)
- SOC 2200 Social Movements and Change (3 credits)
- SOC 2230 Race and Ethnic Relations (3 credits)
  *or* SOC 2240 Men, Women, and Society: A Sociological Interpretation (3 credits)
- SOC 3001 Social Statistics (3 credits)
- SOC 3003 Research Methods (3 credits)
- SOC 3010 Social Theory (3 credits)
- SOC 3040 Global Issues (3 credits)
  *or*SOC 3270 Intersections of Sexuality and Gender (3 credits)
- SOC 3230 Social Psychology (3 credits)
- SOC 3080 Education and Careers (3 credits)
- SOC 4800 Capstone in Sociology (3 credits)

**II REQUIRED ELECTIVES**

SELECT 2 OF THE FOLLOWING COURSES:

- SOC 3050 Environmental Sociology (3 credits)
- SOC 3090 Social and Ethical Issues in Health and Medicine (3 credits)
- SOC 3300 Family and Society (3 credits)
- ECON 3040 Environmental Economics (3 credits)
  *or* ENVR 3040 Environmental Economics (3 credits)
  *or* ECON 3070 Labor Economics (3 credits)

SUGGESTED SEMESTER SCHEDULE FOR SOCIOLOGY MAJOR, B.A.
The following is a list of suggested Sociology Major, B.A. courses arranged by year. This schedule is intended to help students plan their courses in an orderly fashion; however, these are only suggestions and this schedule is flexible.
Freshman
- SOC 1104 Society and Social Issues (3 credits)
- SOC 2240 Men, Women, and Society: A Sociological Interpretation (3 credits)

or SOC 2230 Race and Ethnic Relations

Sophomore
- SOC 2200 Social Movements and Change (3 credits)
- SOC 3003 Research Methods (3 credits)
- As available: SOC 3050 Environmental Sociology, SOC 3300 Family and Society, SOC 3090 Social and Ethical Issues in Health and Medicine

Junior
- SOC 3001 Social Statistics (3 credits)
- SOC 3010 Social Theory (3 credits)
- SOC 3080 Education and Careers (3 credits)
- As available: SOC 3050 Environmental Sociology, SOC 3300 Family and Society, SOC 3090 Social and Ethical Issues in Health and Medicine

Senior
- SOC 3040 Global Issues (3 credits)

or SOC 3270 Intersections of Sexuality and Gender
- SOC 3230 Social Psychology (3 credits)
- SOC 4800 Capstone in Sociology (3 credits)

## Sociology *minor*

Required Credits: 21
Required GPA: 2.00

**I REQUIRED COURSES**

COMPLETE THE FOLLOWING COURSES:

- SOC 1104 Society and Social Issues (3 credits)
- SOC 2230 Race and Ethnic Relations (3 credits)
  *or* SOC 2240 Men, Women, and Society: A Sociological Interpretation (3 credits)
- SOC 3003 Research Methods (3 credits)
- SOC 3040 Global Issues (3 credits)
  *or* SOC 3270 Intersections of Sexuality and Gender (3 credits)
- SOC 3010 Social Theory (3 credits)
  *or* SOC 3230 Social Psychology (3 credits)
- SOC 3080 Education and Careers (3 credits)
- SOC 3090 Social and Ethical Issues in Health and Medicine (3 credits)
  *or* SOC 3300 Family and Society (3 credits)

## Sociology Courses

**SOC 1104 Society and Social Issues (3 credits)**
Examines concepts and theories that describe and explain social life. Focuses on aspects of culture, social class, race relations, and gender relations as they are determined by society, and on how humans create and recreate groups, structures, and institutions. Liberal Education Goal Area 5.

**SOC 2200 Social Movements and Change (3 credits)**
A social history of social movements and change. Focuses on understanding and analyzing these dynamics as generational changes and as the emergence of broader social forces driving the major movements of the past fifty years. The shift from modernity to postmodernity sets the overall theoretical framework, with an emphasis on the dynamics of race, class, gender, environment, and culture. Liberal Education Goal Area 8.

**SOC 2230 Race and Ethnic Relations (3 credits)**
Study of dominant-subordinate relations with emphasis on racial and ethnic inequalities. Examination of privilege, prejudice and discrimination. Liberal Education Goal Areas 7 & 9.

**SOC 2240 Men, Women, and Society: A Sociological Interpretation (3 credits)**
Study of the construction of gender in society and the differential consequences of particular social arrangements on the lives of men and women. Examines gender, male and female sexuality, intimate relationships, gendered patterns of work and education, the gender of violence, and sociological theories of femininity and masculinity. Emphasizes changes in gendered social patterns in U.S. society in the 21st century and compares those changes to shifting patterns in other societies. Liberal Education Goal Areas 5 & 7.

**SOC 2925 People and the Environment: Sociology Perspective (3 credits)**
This course is a section of the interdisciplinary environmental issues course, People and the Environment. The focus of this course is to understand that environmental problems are both problems for society and problems of society. Students explore how sociology and its unique viewpoint add much to understanding the environment/society nexus. Liberal Education Goal Area 10.

**SOC 3001 Social Statistics (3 credits)**
Covers a conceptual understanding of basic descriptive and inferential statistics. Choice of statistic and interpretation of SPSS results is discussed. Prerequisite: Completion of Liberal Education mathematics requirement (Goal Area 4) or consent of instructor.

**SOC 3003 Research Methods (3 credits)**
Examines the basic methods used to study diverse social processes and to improve our understanding of social issues. Topics include the relationship of theory to research, research ethics, evaluation of qualitative and quantitative research designs and patterns of analysis, and associated concerns. Prerequisite: SOC 1104.

**SOC 3010 Social Theory (3 credits)**
An overview of selected sociological theories and theorists considered against the background of the classical period of sociological theorizing in the nineteenth and early twentieth centuries. Emphasis on comparative understanding of the major models of society - order, pluralism, conflict, etc. - that have dominated sociological thinking in the modern period. Prerequisites: SOC 1104 or consent of instructor.

**SOC 3040 Global Issues (3 credits)**
Study of global and local forces that affect groups, organizations, institutions, and societies. Involves an exploration of the rise of contemporary social issues, with a particular focus on developments associated with ethnic, religious, and regional affiliations and shifting social, economic, and political alliances. Students will have a chance to explore the development of global patterns of stratification and its effects on particular groups and societies.

**SOC 3050 Environmental Sociology (3 credits)**
Examines the relationship between society and the environment. Emphasis on political and economic institutions and the consumer lifestyle and values. Considers how the treadmill of production affects ecosystems and discusses possible solutions to environmental problems. Prerequisites: SOC 1104 or consent of instructor.

**SOC 3080 Education and Careers (3 credits)**
Studies how educational institutions and individual experiences affect education and the outcomes of education. Provides students with an opportunity to explore career and civic engagement interests.

**SOC 3090 Social and Ethical Issues in Health and Medicine (3 credits)**
Examines social and ethical issues related to the practice of medicine. Students develop an understanding of the sociological causes of illness, the medicalization of society, and the values and assumptions of those who define and deliver medical care in society. Today people point to the fact that we are experiencing a crisis in health care in the U.S. Costs have skyrocketed, access to primary care is inequitable, infant mortality rates remain high, public accountability problems persist, and we continue to emphasize medical care over and above health care. Sociological interpretations raise questions about these issues, and point to the ways in which society continues to produce disease and illness. As these topics are explored through the sociological lens, the complex ethical dilemmas associated with medical understandings and possible alternatives that emphasize health are identified. Liberal Education Goal Area 9.

**SOC 3230 Social Psychology (3 credits)**
An overview of theory and research in social psychology from a sociological viewpoint. Emphasizes the impact of social location on thought, behavior, and emotion. Explores patterns of interpersonal relationships and small group processes, and why humans establish certain "taken-for-granted" meaning systems and ways of being. Prerequisite: SOC 1104 or consent of instructor.

**SOC 3270 Intersections of Sexuality and Gender (3 credits)**
Exploration of the sexual norms associated with being male and female in Western and non-Western societies. Examines how particular forms of sexuality are privileged and the social and political implications of these hierarchies. Also examined is how the nature of race, sexuality, and gender creates hybrid identities, communities, and cultures that resist and reinforce ethnic and national boundaries.

**SOC 3300 Family and Society (3 credits)**
After a brief introduction to basic sociological concepts, frameworks, methods, and relevant historical materials, students examine several documents that address particular contemporary family issues. Students also learn how to evaluate the materials discussed. Liberal Education Goal Area 5.

**SOC 4800 Capstone in Sociology (3 credits)**
Students decide on a research question and carry out an independent project.

## All-University Courses

The course numbers listed below, not always included in the semester class schedule, may be registered for by consent of the advisor, instructor, or department chair, or may be assigned by the department when warranted. Individual registration requires previous arrangement by the student and the completion of any required form or planning outline as well as any prerequisites.

1910, 2910, 3910, 4910 DIRECTED INDEPENDENT STUDY
1920, 2920, 3920, 4920 DIRECTED GROUP STUDY
1930, 2930, 3930, 4930 EXPERIMENTAL COURSE
1940, 2940, 3940, 4940 IN-SERVICE COURSE
1950, 2950, 3950, 4950 WORKSHOP, INSTITUTE, TOUR
1960, 2960, 3960, 4960 SPECIAL PURPOSE INSTRUCTION
1970, 2970, 3970, 4970 INTERNSHIP
1980, 2980, 3980, 4980 RESEARCH
1990, 2990, 3990, 4990 THESIS

# Sport Management

The vision of the Department of Human Performance, Sport, and Health is "preparing and empowering future professionals to promote physical activity, health, and sport."

The mission of the Department of Human Performance, Sport, and Health is to provide students with experiences to develop leadership, communication, and technological skills for learning, for citizenship, and for work. Our programs foster an appreciation of the contributions of physical activity, wellness, and sport to society.

Sport Management offers specialized training and education for individuals seeking careers in the sport business industry. The Sport Management curriculum is designed to meet the Common Professional Component (CPC) as outlined by COSMA:: social, psychological, and international foundations of sport, management, ethics in sport management, sport marketing & communication, finance/accounting/economics, legal aspects of sport, integrative experience.

Students have the opportunity to gain valuable work experience by completing a 400-hour internship in a sport management setting of their choice. This required internship provides an opportunity to apply management principles and concepts learned in the classroom.

**Programs**

- Sport Management, B.A. *major*
- Sport Management *minor*

**Career Directions**

Campus Recreation
International Sport
Interscholastic/Intercollegiate/Professional Sport Organizations
Physical Fitness Industry
Sport Communications
Sport Event and Facility Management
Sport Management and Marketing Agencies
Sport Marketing and Promotion
Sport Tourism
Also: Graduate Study

**Preparation**

Recommended High School Courses

Business
Coaching
Computers
Health and Fitness
Mathematics
Physical Education
Psychology
Sociology
Speech
Writing

Recommended Activities

Athletic Team Participation

## Sport Management, B.A. *major*

Required Credits: 69
Required GPA: 2.25

**I REQUIRED CORE COURSES**

COMPLETE THE FOLLOWING COURSES:

- ACCT 1101 Principles of Accounting I (3 credits)
- BUAD 2280 Computer Business Applications (3 credits)
- ECON 2000 Markets and Resource Allocation (3 credits)
- HLTH 2100 First Aid and CPR/AED (1 credit)
- PHED 2109 Introduction to Sport Management (3 credits)
- PHED 3120 Psychology of Sport (2 credits)
- PHED 3219 Sport Economics (2 credits)
- PHED 3449 Socio-Culture and Ethical Issues in Sport (3 credits)
- PHED 3509 Sport Event Management (2 credits)
- PHED 3519 Sport Facility Management (2 credits)
- PHED 3600 Sport Marketing (3 credits)
- PHED 4209 Sport Finance (3 credits)
- PHED 4309 Legal Aspects of Sport, Health, and Fitness (3 credits)
- PHED 4409 Sport Business Management (3 credits)

COMPLETE THE FOLLOWING COURSE:

- PHED 2970 Internship: Sport Management Practicum (2 credits)

COMPLETE THE FOLLOWING COURSE:

- PHED 4920 DGS: (1 credit)

COMPLETE THE FOLLOWING COURSE, 12 CREDITS:

- PHED 4970 Internship (1-12 credits): Sport Management

**II. REQUIRED MINOR**

REQUIRED MINOR
Students are to select a minor that will contribute to their professional aspirations. The minors listed below are recommended, though students have the option to select any minor offered by the University. Students are encouraged to work with their faculty advisor to select an appropriate minor.

Accounting (21 credits)
Business Administration (24 credits)
Economics (18 credits)
Mass Communication (21 credits)

**SUGGESTED SEMESTER SCHEDULE FOR SPORT MANAGEMENT MAJOR, B.A.**

The following is a list of required Sport Management B.A. courses arranged by year. This schedule is intended to help students plan their courses in an orderly fashion; however, these are only suggestions and this schedule is flexible.

Freshman

- ACCT 1101 Principles of Accounting I (3 credits)
- HLTH 2100 First Aid and CPR/AED (1 credit)
- PHED 2109 Introduction to Sport Management (3 credits)
- Liberal Education requirements

Sophomore

- BUAD 2280 Computer Business Applications (3 credits)
- ECON 2000 Markets and Resource Allocation (3 credits)
- PHED 2970 Internship: Sport Management Practicum (2 credits)
- PHED 3449 Socio-Culture and Ethical Issues in Sport (3 credits)
- Major Required Electives
- Complete Liberal Education requirements

Junior

- PHED 3509 Sport Event Management (2 credits)
- PHED 4209 Sport Finance (3 credits)
- PHED 4309 Legal Aspects of Sport, Health, and Fitness (3 credits)
- Major Required Electives

Senior

- PHED 4409 Sport Business Management (3 credits)
- PHED 4920 DGS: (1 credit)
- PHED 4970 Internship (1-12 credits)
- Complete Major Required Electives

## Sport Management *minor*

Multiple Credentials
Any additional major, minor or certificate in a degree must have at least 6 credits of course work not used to meet the requirements of another major, minor or certificate in the degree.

Required Credits: 22
Required GPA: 2.00

**REQUIRED COURSES**

COMPLETE THE FOLLOWING COURSES:

- PHED 2109 Introduction to Sport Management (3 credits)
- PHED 3120 Psychology of Sport (2 credits)
- PHED 3449 Socio-Culture and Ethical Issues in Sport (3 credits)
- PHED 3509 Sport Event Management (2 credits)
  *or*PHED 3519 Sport Facility Management (2 credits)
- PHED 3600 Sport Marketing (3 credits)
- PHED 4209 Sport Finance (3 credits)
- PHED 4309 Legal Aspects of Sport, Health, and Fitness (3 credits)
- PHED 4409 Sport Business Management (3 credits)

## Physical Education Courses

**PHED 1114 Skills For Life: Beginning Swimming (1 credit)**
An activity course for non-swimmers. Emphasis will be on personal adjustment to the water, basic strokes, and fundamentals of water safety. Liberal Education Goal Area 11.

**PHED 1115 Intermediate Swimming (1 credit)**
An activity course for swimmers who have the ability to jump into deep water, swim a front stroke 25 yards, and swim on the back 25 yards. Emphasis will be on five basic strokes, elementary diving, and related aquatic skills. Course may lead to American Red Cross Learn to Swim Certification Level 4 or 5. May not be offered every year.

**PHED 1116 Advanced Swimming (1 credit)**
An activity course for swimmers who can swim in satisfactory form 25 yards of each of the five basic strokes (back crawl, breaststroke, front crawl, elementary backstroke, sidestroke). Emphasis will be on developing and refining thirteen strokes, diving and other advanced aquatic skills. Course leads to American Red Cross Learn to Swim Certification Level 6 - Fitness Swimmer. This course is preparatory for the Water Safety Instructor course.

**PHED 1120 Introduction to Sea Kayaking (1 credit)**
An activity course that introduces the basics of kayak history, design, skills, and equipment. Taught through lecture, demonstration, and both on- and off-the-water skills practice.

**PHED 1139 Beginning Scuba Diving (1 credit)**
Upon completion of this course, students will understand and be able to demonstrate the safe scuba diving practices of the Professional Association of Dive Instructors (PADI) curriculum. Focuses on classroom knowledge development and confined-water skill development. Equipment and supplies are provided. This course is phase 1 of the PADI certification course. Students wishing to complete the certification as an Open Water Diver will need to take additional instruction. Liberal Education Goal Area 11.

**PHED 1180 Canoeing (1 credit)**
An activity course that introduces the fundamental skills of canoeing. Emphasis is on safety and on tandem and solo paddling techniques. Prerequisite: swimming test or consent of instructor. Liberal Education Goal Area 11.

**PHED 1190 Skills for Life: Sailing (1 credit)**
An activity course that introduces the fundamental skills of sailing. Development of skills and knowledge of safety, nomenclature, designs, rigging, handling, maintaining, and racing for sailboats. Prerequisite: swimming test or consent of instructor. Liberal Education Goal Area 11.

**PHED 1200 Introduction To Rock Climbing (1 credit)**
Introduction to the basics of Top Rope Rock Climbing and Rappelling through practice at the BSU Climbing Wall and/or other sites. Also includes climbing communication, "leave no trace" climbing techniques, techniques for setting anchors, and discussion of environmental values. Liberal Education Goal Area 11.

**PHED 1230 Yoga (1 credit)**
This course introduces students to basic yoga techniques and allows practice and development of the physical skills needed to perform approximately 40 basic exercises and postures. Liberal Education Goal Area 11.

**PHED 1240 Skills for Life: Techniques of Neuromuscular Relaxation (1 credit)**
An introduction to skill development in Jacobson's techniques to improve awareness of muscular tension and procedures for enhanced neuromuscular relaxation. Origins of stress and the body's responses to stress and stress management techniques will be included. Liberal Education Goal Area 11.

**PHED 1260 Skills for Life: Cycling (1 credit)**
Introduction to and practice in bicycling either off-road or road riding. Basic maintenance skills such as adjusting derailleurs, brakes and changing tires will be presented. Information on cycling for fitness, racing and bicycle touring will be presented. Liberal Education Goal Area 11.

**PHED 1300 Skills for Life: Weight Training (1 credit)**
An activity course that consists of an individualized or group weight program dealing with the fundamentals and practice of resistance exercise techniques for the development of the human body. Liberal Education Goal Area 11.

**PHED 1380 Skills for Life: Self Defense (1 credit)**
An activity course that examines and applies preventative and precautionary measures, assault awareness information, and most commonly needed personal self-defense skills and techniques. Liberal Education Goal Area 11.

**PHED 1430 Skills for Life: Archery (1 credit)**
An activity course that examines and applies the fundamentals and skills of archery. Selection and care of equipment, instruction and practice of shooting skills and scoring in target archery will be included. Liberal Education Goal Area 11.

**PHED 1454 Skills for Life: Golf (1 credit)**
An activity course that examines and applies the fundamentals and skills of golf. Selection and care of equipment, history and rules of the game, safety, etiquette, instruction and practice will be included. Liberal Education Goal Area 11.

**PHED 1474 Skills for Life: Bowling (1 credit)**
An activity course that examines and applies the fundamentals and skills of bowling. Students will demonstrate a knowledge of bowling history, scoring, handicapping and skills in bowling and etiquette. Liberal Education Goal Area 11.

**PHED 1490 Skills for Life: Badminton (1 credit)**
An activity course that examines and applies the fundamentals and skills of badminton. Students will demonstrate a knowledge of badminton history, scoring, and rules and regulations in singles and doubles play. Racket grips, strokes, footwork and tactics will be discussed and practiced. Liberal Education Goal Area 11.

**PHED 1500 Skills for Life: Ice Skating (1 credit)**
An activity course that examines and applies the fundamentals and skills of ice skating. Forward and backward stroking, crossovers and stops will be part of the evaluation. Liberal Education Goal Area 11.

**PHED 1520 Downhill Skiing (1 credit)**
An activity course that introduces the basic skills of beginning downhill skiing. Technique and skill development in traversing, turning, speed control and stopping will be included. The language of ski safety will also be discussed. (May not be offered every year.)

**PHED 1530 Snowboarding (1 credit)**
An activity course that introduces the basic skills of snowboarding, including toe turns, heel turns, carving, skating, stopping, and various forms of "riding." Includes an overview of snowboard equipment and how to select appropriate equipment. Liberal Education Goal Area 11.

**PHED 1540 Skills for Life: Curling (1 credit)**
An activity course that introduces the skills of curling, including techniques of throwing rocks and sweeping as well as strategies, rules, and scoring. (May not be offered every year) Liberal Education Goal Area 11.

**PHED 1554 Skills for Life: Cross Country Skiing (1 credit)**
An activity course that introduces the basic skills of cross country skiing including downhill turns and stopping. The student may choose to learn either skate skiing skills or the traditional skills of diagonal stride skiing. Some trail skiing will be included. Liberal Education Goal Area 11.

**PHED 1574 Skills for Life: Tennis (1 credit)**
An activity course that introduces the basic skills of tennis including techniques of basic grips, strokes and footwork. Entry level strategies for singles and doubles, history and rules of the game, etiquette, and scoring will be taught. Liberal Education Goal Area 11.

**PHED 1604 Skills for Life: Social Dance I (1 credit)**
This beginner-level activity course examines and applies the fundamentals and skills of contemporary, popular, and club style partner dances not typically included in a classic ballroom syllabus. Liberal Education Goal Area 11.

**PHED 1605 Social Dance II (1 credit)**
This intermediate- to advanced-level activity course examines and applies the fundamentals and skills of contemporary, popular, and club style partner dances not typically included in a classic ballroom syllabus. Prerequisite: PHED 1604 or consent of instructor. (Might not be offered every year.)

**PHED 1606 Skills for Life: American Style Ballroom Dance I (1 credit)**
An activity course that examines and applies the fundamentals and skills of classic ballroom dance. The steps taught are from the Dance Vision International Dance Association (DVIDA) American Bronze syllabus. Liberal Education Goal Area(s): 11.

**PHED 1607 Skills for Life: American Style Ballroom Dance II (1 credit)**
An activity course that examines and applies the fundamentals and skills of classic ballroom dance at an intermediate to advanced level. The steps taught are from the Dance Vision International Dance Association (DVIDA) American Bronze syllabus. Prerequisite: PHED 1606 or consent of instructor.

**PHED 1608 Skills for Life: International Style Ballroom Dance (1 credit)**
An activity course that examines and applies the fundamentals and skills of classic international style ballroom dance. The steps taught are from the Dance Vision International Dance Association (DVIDA) International Bronze syllabus. Liberal Education Goal Area 11.

**PHED 1764 Skills for Life: Basketball (1 credit)**
An activity course that examines and applies the fundamentals and skills of basketball. History and rules of the game, safety, drills, entry level strategies, conditioning, individual and group instruction and practice will be included. Liberal Education Goal Area 11.

**PHED 1784 Skills for Life: Volleyball (1 credit)**
An activity course that examines and applies the fundamentals and skills of volleyball. History and development, basic team systems, rules and strategies of the game will be included. Liberal Education Goal Area 11.

**PHED 1814 Skills for Life: Softball (1 credit)**
An activity course that examines and applies the fundamentals and skills of slow and fast pitch softball. History and rules of the game, terminology, score keeping, safety, field playing areas, drills, and entry level game strategies will be included. Liberal Education Goal Area 11.

**PHED 1840 Skills for Life: Racquetball (1 credit)**
An activity course that examines and applies the fundamentals and skills of racquetball. Components such as safety, serving and volleying will be emphasized. Singles, cutthroat, and doubles play will be introduced. Liberal Education Goal Area 11.

**PHED 1854 Skills for Life: Soccer (1 credit)**
An activity course that examines and applies the fundamentals and skills of soccer. The history of the game, rules and regulations and entry level drill and game strategies will be examined. Liberal Education Goal Area 11.

**PHED 1890 Lifetime Fitness (2 credits)**
This personal fitness class will allow students to develop their own aerobic and possibly strengthening program. They will receive some instruction in the development of fitness, use of equipment, etc., but the focus will be active participation in walking, jogging, rowing, stepping, etc. Liberal Education Goal Area 11.

**PHED 2100 Foundations of Physical Education, Exercise Science, and Sport (3 credits)**
A critical examination of the history, people, events, programs and philosophical positions that have led to the current status of physical education, fitness and sport in the United States. Students will be provided with up-to-date information about physical education and its diverse sub-fields as well as an introduction to career roles and preparation for professional service in all areas of physical education, kinesiology and exercise science.

**PHED 2109 Introduction to Sport Management (3 credits)**
This course will help and assist the prospective sport management major to discover specialized training personnel positions in the rapidly growing sport management field. Concentration will be on the duties and tasks performed, and the competencies needed for a career in sport management. Students will conduct a formal interview with a professional to further discuss the duties, tasks and competencies needed for that professional's field of work.

**PHED 2200 A Lifestyle for Wellness (2 credits)**
An examination of the social, emotional, mental, spiritual and physical dimensions of wellness. Students will examine their own lifestyles and learn how to make behavioral changes. Emphasis on self-esteem, nutritional habits, exercise habits and the importance of self-responsibility. Liberal Education Goal Area 9.

**PHED 2630 Lifeguard Training (3 credits)**
A lecture course with laboratory activity that examines and applies the fundamentals and skills of supervising swimming pool and water front activities. American Red Cross Certification may be earned for: Lifeguard Training and First Aid, CPR/AED for the Professional Rescuer, and Waterfront Lifeguarding. Good swimming skills are needed to succeed in this course.

**PHED 2640 Water Safety Instructor (3 credits)**
A lecture course with laboratory activity that constitutes all the aspects for the training of American Red Cross Water Safety Instructors. American Red Cross Water Safety Instructor Certification may be earned. Contact professor for further details. (May not be offered every year.)

**PHED 2925 People and the Environment: (3 credits)**
This class will explore the concepts of wilderness and recreation and how these relate to practices that protect or enhance the environment. May not be offered every year. Liberal Education Goal Area 10.

**PHED 2970 Internship: Sport Management Practicum (2 credits)**
When taken as Sport Management Practices, the following description applies: A study of various skills, roles, and functions of sport managers in managing people, the workplace, and day-to-day operations. Topics include definitions; management theories; functions of management; time management skills; effective decision making and problem solving; motivational theories, morale, and strategies; leadership theories; personal styles of leadership; and skills and competencies of sport leaders. Also includes practical experience in the organization and administration of sporting events or related areas. Prerequisite: PHED 2109 or consent of instructor.

**PHED 3090 Sport Physiology (2 credits)**
Emphasis on conditioning athletes including body composition, nutrition, cardiovascular fitness, flexibility, strength and other conditioning issues as related to sport training and participation. This course is designed primarily for non-PE majors who are interested in the coaching specialist program.

**PHED 3100 Motor Development (2 credits)**
An introduction to motor development and related motor theories. Application of these basic motor principles to the teaching of physical education and activity at all levels.

**PHED 3110 Motor Learning (2 credits)**
An introductory class in motor control and learning that gives an overview of the processes and mechanisms involved in generating, acquiring, and refining motor skills and of factors that foster or hinder the acquisition and refinement of these skills.

**PHED 3120 Psychology of Sport (2 credits)**
Study of the general relationship between individuals and sports behavior. Covers competitiveness, goal setting, peak performance, psychosocial influences, and rehabilitation. Also includes guides to show how teaching and learning may be applied to the coaching of sport and to bring out the relationship of meaningful learning to successful athletic coaching.

**PHED 3190 Athletic Training (2 credits)**
A lecture course with laboratory activity introducing the five practice domains of athletic training that include: prevention, recognition and evaluation, rehabilitation, reconditioning of athletic injuries, administration and professional development. Other topics include the theory and practice of athletic taping and risk management.

**PHED 3200 Introduction to Sport Biomechanics (3 credits)**
Introduction to biomechanical concepts and principles. Application of these principles to evaluating and improving performance in physical activities. Introduction to methods for qualitative movement analysis. Prerequisite: BIOL 2110 and PHED 3100 or consent of instructor.

**PHED 3219 Sport Economics (2 credits)**
This course provides the an understanding of theories and concepts related to economics of sport. Topics covered include economic growth of the sport industry, concepts of competitive strategy, economic impact principles, economic theory applied to various levels of sport, labor relations, stadium and arenas, venues and events, manufacturing and service industries, and impact of media. Prerequisite: ECON 2000 or consent of instructor.

**PHED 3300 Physiology of Exercise and Nutrition (3 credits)**
An examination of the effects of exercise on the systems of the body as they relate to health and performance. Nutritional concepts of weight control, ergogenic aids and fluid replacement will be discussed. Techniques for developing, prescribing, and assessing fitness components will be presented. Prerequisite: BIOL 2110 or consent of instructor.

**PHED 3449 Socio-Culture and Ethical Issues in Sport (3 credits)**
Study of the general relationship between individuals and sport, and sport and society. Discussions cover the ways sport is linked to other spheres of social life, the organization and behavior patterns of both individuals and groups within sport settings, and the cultural, structural, and situational factors affecting sport and sport experiences.

**PHED 3504 Teaching Rhythms and Dance (2 credits)**
Methods and materials for teaching various forms of rhythms and dance. Components include effective individual and group instruction; cultural and historical implications; dance steps, fundamentals, and a variety of traditional, creative and contemporary dance forms applicable to the K-12 setting. Prerequisite: entrance into the teacher education program or consent of instructor.

**PHED 3505 Teaching Elementary Physical Education (2 credits)**
An introduction to the developmental physical education program at the elementary school level. Components include learner characteristics, program content and organization and methods of teaching physical education. Prerequisite: PHED 3504 and entrance into the teacher education program or consent of instructor.

**PHED 3509 Sport Event Management (2 credits)**
This course will provide the student with an understanding of the responsibilities in managing sport facilities, administering, organizing and producing sporting events. The topics will range from personnel issues, facility protocol and procedures, and emergency plans. Prerequisite: BUAD 2280 or consent of instructor.

**PHED 3519 Sport Facility Management (2 credits)**
This course provides an understanding of sport facility management, facility planning, site and design development, systems and operations, and facility administration. Prerequisite: BUAD 2280 or consent of instructor.

**PHED 3600 Sport Marketing (3 credits)**
Study of fundamental marketing principles utilized in sport. Topics include definitions, marketing planning process, goals and objectives of marketing, marketing mix, segmentation, target markets, consumer behavior, sponsorship, endorsement, merchandising, fundraising, print media and mass communication. Prerequisite: BUAD 2280 or consent of instructor.

**PHED 3604 Teaching Team Sports (2 credits)**
Activities and teaching methods for team sport activities included in current physical education programs at all levels. Prerequisite: entrance into the teacher education program or consent of instructor.

**PHED 3605 Teaching Individual Sports (2 credits)**
Methods of teaching and the practice of the skills such sports as tennis, golf, pickleball, archery, badminton, bowling, and racquetball are the focus. Development of lesson plan, unit plans and application of teaching methods is emphasized. Prerequisite: entrance into the teacher education program or consent of instructor.

**PHED 3607 Teaching Fitness (2 credits)**
Methods of teaching and the practice in the development of physical fitness, including development of the health related fitness components of strength, cardiovascular endurance, muscular endurance, and flexibility with activities such as cross country skiing, exercise walking, orienteering, cycling, yoga, and weight training. Prerequisite: Entrance into the Teacher Education program or consent of instructor.

**PHED 3620 Techniques of Officiating Basketball (1 credit)**
A comprehensive study of the rules governing the game of basketball. Practical experience in simulated game situations will be provided. Information will be available for securing state high school league officiating status. May not be offered every year.

**PHED 3690 Coaching Principles (2 credits)**
The fundamental concepts and basic trends in the field of coaching. The history, present philosophies, psychology, pedagogy, physiology, sports medicine and objectives will be analyzed and examined. Topics that are universal to all coaching disciplines like scheduling, risk management, sport law, dealing with media, parents, peer pressure, and academic requirements will be covered.

**PHED 3710 Basketball Coaching (2 credits)**
The study of the game of basketball and the instructional techniques of individual and team play. Organizational procedures, practice preparation, scouting, rules and regulations, skill sequence and development, offensive, defensive and transitional systems, coaching philosophies and public relations will be examined.

**PHED 3720 Football Coaching (2 credits)**
A comprehensive study of developing a successful football team with an emphasis on teaching appropriate techniques and skills of the game. Practice and game organization, delegation of staff responsibilities and public relations will also be examined.

**PHED 3740 Ice Hockey Coaching (2 credits)**
In depth lectures and discussion concerning offensive and defensive skills and tactics, power play and penalty killing. Skilled positional play of goalies, defensemen, centers, and wings (forwards). Coaching techniques, motivational and leadership development, theory, rules, and regulations. Additional assignments involve planning and evaluating practices, games and athletic talent. Rules, budgets, and equipment repair will be discussed. (May not be offered every year.)

**PHED 3750 Soccer Coaching (2 credits)**
Organization and preparation for interscholastic competition. Emphasis will be on teaching specific soccer skills, individual player structures, practice preparation, and management. Strategies, conditioning and psychology of coaching issues will be examined. (May not be offered every year.)

**PHED 3770 Swimming Coaching (2 credits)**
Emphasis will be on developing knowledge and understanding of the applications of various laws of motion, leverage and flotation in the teaching of advanced swimming and diving skills. Emphasis on pool operation, swimming meet organization and swimming meet rules is included. Class participation includes classroom and laboratory experiences. (May not be offered every year.)

**PHED 3790 Track and Field Coaching (2 credits)**
Discussion and application of fundamental concepts required for effective teaching of the events in track and field. Event enrollment and management along with the aspects of practice and event coaching will be discussed.

**PHED 3800 Volleyball Coaching (2 credits)**
Provides information and training for teaching and coaching volleyball with an emphasis on the high school level. Class lecture and application activities on the court included. (May not be offered every year.)

**PHED 4160 Advanced Fitness Assessment & Prescription-Aerobic (3 credits)**
Theory and practice of physical fitness assessment for the purpose of prescribing aerobic exercise to adults, both healthy populations and those with special conditions, such as obesity, diabetes, osteoporosis, asthma, hypertension, and heart disease. Prepares students for American College of Sports Medicine (ACSM) Health Fitness Specialist exam as well as other personal trainer certifications. Prerequisite: PHED 3300 or consent of instructor.

**PHED 4170 Advanced Principles for Strength and Speed Training Exercise (3 credits)**
Theory and practice of strength and speed training with emphasis on technique analysis and instructional methods for strength training. Includes facility design and equipment purchasing and maintenance. Prepares students for National Strength and Conditioning Association Certified Strength and Conditioning Specialist (CSCS). Prerequisite: PHED 3300 or consent of instructor.

**PHED 4200 Methods of Teaching Elementary Physical Education to Classroom Teachers (1 credit)**
Organization and conduct of the physical education program in the elementary school.

**PHED 4209 Sport Finance (3 credits)**
This course will provide the student an understanding of theories and concepts used in financial resource management for the operation of programs in both public and private sectors of sport. Topics include ethical concerns, decision making, principles of budgeting, budget development, financial statements, spread sheet utilization, and sources of revenue for financing sport. Prerequisites: ACCT 1101 or consent of instructor.

**PHED 4211 D/APE History, Philosophy, Diagnosis and Assessment (3 credits)**
Introduction to physical education for students with disabilities, emphasizing the history and philosophy, legal mandates, resources, administration, curriculum, formal/informal assessment, evaluation, reporting results, IEP development, program planning, and entry/exit criteria. Prerequisites: BIOL 2110, PHED 2100, and PHED 3100.

**PHED 4212 Developmental Techniques for Adapted Physical Education (3 credits)**
Adaptation of physical activities for individuals with disabilities from birth to adulthood, emphasizing the application of current movement science research as outlined by the Individuals with Disabilities Act. Prerequisites: BIOL 2110, PHED 2100, and PHED 3100, or consent of instructor

**PHED 4217 D/APE Sport and Recreation for Individuals with Disabilities (3 credits)**
Through observation, laboratory experience, and discussion, students learn of community opportunities, resources, and advocacy groups as well as environmental adaptations and modifications related to sports and recreational activities for individuals with disabilities. Prerequisites: BIOL 2110, PHED 2100, PHED 3100, PHED 4211, or consent of instructor.

**PHED 4218 Adapted Aquatics (2 credits)**
A practical, hands-on course that applies information learned in prerequisite classes to the teaching of swimming skills to students with physical and/or mental disabilities. BSU students assess swimming skills, develop IEPs, review student progress, and teach swimming skills, using a variety of equipment, to students with a wide range of abilities. Prerequisites: PHED 2640 or consent of instructor.

**PHED 4309 Legal Aspects of Sport, Health, and Fitness (3 credits)**
An overview of the field of sports law, with applications to amateur sport, professional sport, recreation, health, healthcare, and fitness settings. Key areas of the law are identified, and applications within the sport, health and fitness industries are studied. Provides information about legal issues that may help professionals avoid litigation by foreseeing and preventing problems. Prerequisite: Junior or Senior status.

**PHED 4360 Adventure Programming (3 credits)**
Nuts and bolts of planning educational outdoor adventure experiences. Also reviews theory, literature, and program types.

**PHED 4400 Curriculum and Assessment in Physical Education (3 credits)**
Focus on the curricular process and it's evaluation to determine if the curriculum is meeting community and individual student needs. A second focus will be on assessment goals, objectives and outcomes of the cognitive, affective and motor aspects of physical education. Prerequisites: PHED 2100, PHED 3200, and PHED 3300 or consent of instructor.

**PHED 4409 Sport Business Management (3 credits)**
Study of the structures and processes of sport organizations. Topics include definitions; organizational behavior and structure; strategic planning process; organizational philosophy, goals, objectives, and mission statement; and human resource management. Also examines concepts of morality, theories of ethics, professional ethics, social responsibility, personal and management values, and how to develop a professional code of ethics. Prerequisite: PHED 2970 or consent of instructor.

**PHED 4500 Inclusive Physical Education (3 credits)**
An introduction to the study and practice of teaching physical education to children with disabilities in the public schools. Prerequisites: PHED 3100, PHED 3110, PHED 3200, PHED 3504, PHED 3505, PHED 3604, PHED 3605, PHED 3607, or consent of instructor.

**PHED 4920 DGS: (1 credit)**
When taken as Exercise Science Seminar the following description applies: Intended as a capstone course to prepare the Exercise Science major for employment, internship/job procurement, or continuing education in a graduate program. This course integrates discussion of strategies for professional development, as well as providing quality written composition on employment/graduate program goals and objectives. Prerequisite: Senior status or consent of instructor. When taken as Physical Education Seminar the following description applies: Intended as a capstone course to prepare the physical education major for employment, student teaching/job procurement, or continuing education in a graduate program. This course integrates discussion of strategies for professional development, as well as providing quality written composition on employment/graduate program goals and objectives. Prerequisite: Senior status or consent of instructor. When taken as Sport Management Seminar the following description applies: Intended as a capstone course to prepare the sport management major for employment; internship/job procurement, or continuing education in a graduate program. This course integrates discussion of strategies for professional development, as well as providing quality written composition on employment/graduate program goals and objectives. Prerequisite: Senior status or consent of instructor.

**PHED 4921 Varsity Sport: (1 credit)**
Varsity Sport - Participation credit, may be taken once per year of eligibility.

**PHED 4970 Internship (1-12 credits)**
When taken as practicum in athletic coaching, the following description applies: Application of the principles and practices in athletic coaching. A 30 hour practical coaching experience under the guidance and supervision of a licensed coach. This practicum must be conducted at the high school level. Appropriate forms must be filed with the department chairperson. Prerequisites: Completion of at least 70 percent of Physical Education Major or Coaching Specialist Program or consent of instructor. When taken as practicum in D/APE, the following description applies: Observation of and participation in physical education instruction for students pre-K--12 with disabilities. Includes seminar component for discussion of current issues, ideas, and problems in developmental/adapted physical education. Required: A minimum of 30 practicum hours per credit. Prerequisites: BIOL 2110, PHED 2100, PHED 3100, PHED 4500, PHED 4211. When taken as Internship in Exercise Science, the following description applies: This course is for the purpose of providing a supervised field internship experience in an exercise, fitness, and/or wellness-related setting, including hospitals, corporations, private fitness-facilities, and governmental agencies. Or, the internship may take the form of a special project or research on a topic relevant to exercise science. Prior approval must be obtained from the student's internship advisor. A journal, written paper, and/or oral presentation is to be presented following the learning experience. The student is expected to complete 30 hours per credit. Prerequisites: PHED 4160 and PHED 4170, or consent of instructor. When taken as Sport Management internship, the following description applies: Sport management majors are required to complete a field experience that is relevant to their career goals. The internship needs to provide an opportunity for the student to apply the different theories and concepts learned from class in a practical setting through: observation, planning, decision-making, committee work, leadership, operation management, individual projects, and group projects. Required: 400 hours for 12 credit internship to meet accreditation guidelines. Prerequisite: Consent of instructor. When taken as Practicum in Physical Education Teaching, the following description applies: A supervised experience in teaching K-10 students in physical education. Emphasis is on meeting the Minnesota Board of Teaching requirements for physical education majors. Required: A minimum of 30 practicum hours per credit. Prerequisite: PHED 3505 and PHED 3604.

## All-University Courses

The course numbers listed below, not always included in the semester class schedule, may be registered for by consent of the advisor, instructor, or department chair, or may be assigned by the department when warranted. Individual registration requires previous arrangement by the student and the completion of any required form or planning outline as well as any prerequisites.

1910, 2910, 3910, 4910 DIRECTED INDEPENDENT STUDY
1920, 2920, 3920, 4920 DIRECTED GROUP STUDY
1930, 2930, 3930, 4930 EXPERIMENTAL COURSE
1940, 2940, 3940, 4940 IN-SERVICE COURSE
1950, 2950, 3950, 4950 WORKSHOP, INSTITUTE, TOUR
1960, 2960, 3960, 4960 SPECIAL PURPOSE INSTRUCTION
1970, 2970, 3970, 4970 INTERNSHIP
1980, 2980, 3980, 4980 RESEARCH
1990, 2990, 3990, 4990 THESIS

# Technology, Art, and Design

The Department of Technology, Art and Design offers a variety of programs that span the application of technology, art and design in response to a range of human wants and needs. Courses nurture the development of individual creative expression, critical thinking and problem solving skills. Degree programs foster the development of knowledge and skills to design and develop creative solutions that address operations and future needs in an array of cultural, design, business, technological and industrial settings.

The department offers a nationally accredited* Bachelor of Science program in Engineering Technology, with specializations in Construction Management and Manufacturing Management. Along with the associated Bachelor of Applied Science programs in Applied Engineering and Technology Management, these degree options offer both four-year and transfer students the opportunity to prepare for leadership roles in a wide range of technologically based enterprises including but not limited to the fields of construction, energy, manufacturing and sustainability.

Transfer students have the option to enroll in either the Bachelor of Applied Science program in Applied Engineering or Technology Management. Both degrees are offered as "2 + 2" programs online or on campus for working professionals who have either an Associate of Science degree, Associate of Applied Science degree, diploma or certificate and wish to complete a Bachelor's degree.

The Bachelor of Science in Art and Design offers students a unique and exciting opportunity to pursue careers that demand excellence in a combination of technical, creative, and artistic capabilities. Students can pursue specializations in either Studio Arts or Digital and Exhibit Design. All Art and Design students benefit from a portfolio review process, a graduation requirement that offers them the opportunity to present their professional portfolios to leaders in their industries from across the nation. Students transferring from a MnSCU Community and/or Technical College with an Associate degree in a related design field may be eligible for articulated transfer into the Art and Design program.

The Department of Technology, Art and Design offers five exhibition spaces that present local, regional, national and international exhibits. The gallery program also maintains permanent collections in ceramics and prints.

*The BS in Engineering Technology is accredited by the Association of Technology, Management, and Applied Engineering (http://atmae.org).

**Programs**

- Applied Engineering, B.A.S. *major*
- Art and Design, B.S. (Articulated Emphasis)*major*
- Art and Design, B.S. (Digital and Exhibit Design Emphasis)*major*
- Art and Design, B.S. (Studio Arts Emphasis)*major*
- Engineering Technology, B.S. (Construction Management Emphasis)*major*
- Engineering Technology, B.S. (Manufacturing Management Emphasis)*major*
- Project Management, B.S. (Construction Management Emphasis)*major*
- Project Management, B.S. (Facility Management Emphasis)*major*
- Project Management, B.S. (Operations Management Emphasis)*major*
- Technology Management, B.A.S. *major*
- Design *minor*
- Project Management *minor*
- Studio Arts *minor*

**Career Directions**

Applications Engineering
Art Director
Artist/Technician
Construction Management
Construction Management Engineer
Engineer
Exhibit Designer
Field Engineer
Graphic Designer
Industrial/Architectural Rendering
Management
Manufacturing Engineering
Model Building
Multimedia Specialist/Designer
Pre-press Production
Print Production
Process Planning
Quality Control Engineering
Research and Development
Safety Engineer
Teaching
Technical Sales
Web Page Development
Also: Graduate Study

**Preparation**

*Recommended High School Courses*
Drafting
Graphic Arts
Production
Construction
Manufacturing
Electronics
Robotics
Art/Fine Arts
CADD/Computer Programming
Project Lead the Way classes

## Applied Engineering, B.A.S. *major*

The Applied Engineering Program is designed to prepare individuals to work in a variety of applied engineering career paths in business or industry. The program is designed specifically for individuals who typically possess a two-year technical degree and are interested in advancing their professional career. The program is a "2+2" degree that permits students to apply their 2 year technical degree credits toward a baccalaureate degree. Coupled with a two-year technical degree providing a focused foundation, students will complete junior- and senior-level courses covering a broad range of applied engineering concepts and applications. This breadth will provide maximum flexibility for graduates to pursue diverse employment opportunities. Completion of the degree is available through a web-based distance delivery format. Students should work closely with an advisor to obtain program and course selection information.

**Note:** Transfer students must take a minimum of 30 semester credits from Bemidji State University. Forty (40) upper division semester credits are also required for graduation.

Required Credits: 67
Required GPA: 2.25

**I REQUIRED TECHNICAL CORE COURSES**

Requires 26 technical credits transferred from an A.S. or A.A.S. degree, or a diploma (e.g., Manufacturing Technology, Automation Technology)

**II REQUIRED APPLIED ENGINEERING TECHNOLOGY CORE**

COMPLETE THE FOLLOWING COURSES:

- TADT 3100 Principles and Practices of Professional Development (2 credits)
- TADT 3267 Engineering Economic and Cost Analysis (4 credits)
- TADT 3700 Production Planning and Control (4 credits)
- TADT 4537 Industrial Design/Innovation (4 credits)
- TADT 4878 Quality Assurance (4 credits)
- TADT 4879 Service Process Design and Improvement (4 credits)
- TADT 4897 Project Management (4 credits)

**III APPLIED ENGINEERING TECHNOLOGY ELECTIVES**

SELECT 12 CREDITS FROM THE FOLLOWING WITH ASSISTANCE FROM A FACULTY ADVISOR:

- BUAD 3281 Decision Support Systems (3 credits) **
- BUAD 3361 Marketing (3 credits) **
- BUAD 3381 Management Information Systems (3 credits) **
- BUAD 4469 Small Business Case Analysis (3 credits) **
- TADT 3217 Materials Science and Metallurgy (4 credits)
- TADT 3260 Project Bidding and Estimating (4 credits)
- TADT 3460 3D Parametric Modeling and Printing (4 credits)
- TADT 3877 Engineering Problem Solving (4 credits)
- TADT 3878 Industrial/Engineering Production Studies (4 credits)
- TADT 3885 Technical Sales, Service and Training (4 credits)
- TADT 4385 Sustainability and Emerging Technologies (4 credits)
- TADT 4778 Advanced Topics in Technology (4 credits)
- TADT 4875 Facilities Management (4 credits)

** require prerequisites, or junior status and consent of instructor

MAY INCLUDE TADT 4970 FOR 1-2 CREDITS

- TADT 4970 Internship (1-12 credits)

**IV REQUIRED ENGINEERING CAPSTONE**

COMPLETE THE FOLLOWING COURSE:

- TADT 4820 Engineering Case Study (3 credits)

## Art and Design, B.S. *major*
## Articulated Emphasis

Required Credits: 68
Required GPA: 2.75

**REQUIRED CORE COURSES**

Articulated students transfer their credits from the related program directly into BSU's Art and Design program as 8 lower level credits in the Required Core and 20 credits into the articulated specialization. All other transfer credits fulfill general elective requirements for the degree. (maximum of 28 credits accepted into the major)

COMPLETE THE FOLLOWING COURSES:

- TADD 3440 3D Digital Foundations (4 credits)
- TADD 3450 History of Modern Design (4 credits)

COMPLETE an additional 28 upper division credits from Digital & Exhibit Design or Studio Arts emphasis options and the related Senior Culmination (TADD 4440 or TADD 4450) emphasis course.

## Art and Design, B.S. *major*
## Digital and Exhibit Design Emphasis

Required Credits: 68
Required GPA: 2.75

**REQUIRED CORE COURSES**

COMPLETE THE FOLLOWING COURSES:

- TADD 1440 Design and Drawing Foundations (4 credits)
- TADD 2440 2D Digital Foundations (4 credits)
- TADD 3440 3D Digital Foundations (4 credits)
- TADD 3450 History of Modern Design (4 credits)

**DIGITAL AND EXHIBIT DESIGN EMPHASIS**

REQUIRED COURSES

- TADD 3548 Digital Media/3D (4 credits)
- TADD 3549 Digital Media/Interactive (4 credits)
- TADD 3568 Exhibit Design/Trade Show (4 credits)

- TADD 3569 Exhibit Design/Environments (4 credits)
- TADD 3578 Digital Print/Typography and Grid (4 credits)
- TADD 3579 Digital Print/Branding and Publication (4 credits)
- TADD 4440 Digital Design Senior Culmination (4 credits)
- TADD 4549 Advanced Digital Media Design (4 credits)
- TADD 4569 Advanced Exhibit Design (4 credits)
- TADD 4579 Advanced Digital Print Design (4 credits)

REQUIRED GUIDED ELECTIVES
WITH CONSENT OF PROGRAM ADVISOR SELECT 12 CREDITS FROM
THE STUDIO ARTS EMPHASIS, TADT COURSES, AND/OR
TADD/TADT 4970 INTERNSHIP (UP TO 4 CREDITS).

- TADD 3648 Color Theory (4 credits)
- TADD 3649 Introduction to Painting (4 credits)
- TADD 3658 Advanced Drawing (4 credits)
- TADD 3659 Life Drawing (4 credits)
- TADD 3669 Photography and Digital Imaging (4 credits)
- TADD 3748 Ceramics/Hand Building (4 credits)
- TADD 3749 Ceramics/Wheel (4 credits)
- TADD 4649 Advanced Painting (4 credits)
- TADD 4659 Trends in Visual Arts (4 credits)
- TADD 4749 Ceramics/Non-Vessel (4 credits)
- TADD 4450 Studio Arts Senior Culmination (4 credits)
- TADT 4970 Internship (1-12 credits)
- TADD 4970 Internship (1-12 credits)

## Art and Design, B.S. *major*
## Studio Arts Emphasis

Required Credits: 68
Required GPA: 2.75

**REQUIRED CORE COURSES**

COMPLETE THE FOLLOWING COURSES:

- TADD 1440 Design and Drawing Foundations (4 credits)
- TADD 2440 2D Digital Foundations (4 credits)
- TADD 3440 3D Digital Foundations (4 credits)
- TADD 3450 History of Modern Design (4 credits)

**STUDIO ARTS EMPHASIS**

REQUIRED COURSES
COMPLETE 36 CREDITS FROM THE FOLLOWING COURSES:

- TADD 3648 Color Theory (4 credits)
- TADD 3649 Introduction to Painting (4 credits)
- TADD 3658 Advanced Drawing (4 credits)
- TADD 3659 Life Drawing (4 credits)
- TADD 3669 Photography and Digital Imaging (4 credits)
- TADD 3748 Ceramics/Hand Building (4 credits)
- TADD 3749 Ceramics/Wheel (4 credits)
- TADD 4649 Advanced Painting (4 credits)
- TADD 4659 Trends in Visual Arts (4 credits)
- TADD 4749 Ceramics/Non-Vessel (4 credits)

REQUIRED COURSE

- TADD 4450 Studio Arts Senior Culmination (4 credits)

REQUIRED GUIDED ELECTIVES
WITH CONSENT OF PROGRAM ADVISOR SELECT 12 CREDITS FROM
TADD/TADT COURSES AND/OR
TADD/TADT 4970 INTERNSHIP (UP TO 4 CREDITS)

- TADD 4970 Internship (1-12 credits)
- TADT 4970 Internship (1-12 credits)
- TADD****

## Engineering Technology, B.S. *major*
## Construction Management Emphasis

The Engineering Technology program prepares individuals for a wide range of career opportunities in business and industry in such areas as management, construction, engineering, product development, quality assurance, safety, and sustainable energy. There are two emphasis options in construction and manufacturing management that provide an opportunity to develop a focused study of management theories and practices in these areas.

**Note:** Upon approval of the Department of Technological Studies, certain major courses can be substituted in the technical core, professional core, or area of emphasis from related technical and community college programs.

Required Credits: 78
Required GPA: 2.25

**I REQUIRED TECHNICAL CORE COURSES**

COMPLETE THE FOLLOWING COURSES:

- TADT 1210 Materials and Processes - Forming (3 credits)
- TADT 1220 Materials and Processes - Separating (3 credits)
- TADT 1315 Energy and Power Technology (3 credits)
- TADT 1350 Electrical/Electronic Technology (3 credits)
- TADT 1460 2D Graphics And Laser Etching (3 credits)
- TADT 2250 Construction Technology (3 credits)
- TADT 2370 Automation Technology (3 credits)

**II REQUIRED PROFESSIONAL CORE COURSES**

COMPLETE THE FOLLOWING COURSES:

- TADT 3267 Engineering Economic and Cost Analysis (4 credits)
- TADT 3885 Technical Sales, Service and Training (4 credits)
- TADT 4385 Sustainability and Emerging Technologies (4 credits)
- TADT 4537 Industrial Design/Innovation (4 credits)
- TADT 4875 Facilities Management (4 credits)
- TADT 4878 Quality Assurance (4 credits)
- TADT 4897 Project Management (4 credits)

**III REQUIRED FOUNDATION COURSES**

TAKE 6 SEMESTER CREDITS OF MATH AT THE 1100 OR HIGHER LEVEL. STUDENTS ARE ENCOURAGED TO TAKE STATISTICS AND CALCULUS.

TAKE 7 SEMESTER CREDITS FROM AMONG THE PHYSICS, CHEMISTRY, OR PHYSICAL SCIENCE (SPECIFICALLY, SCI 1110 AND SCI 1120) COURSES THAT ARE APPROVED TO FULFILL LIBERAL EDUCATION CATEGORY 3. OTHER CATEGORY 3 COURSES

MAY BE SUBSTITUTED IF APPROVED BY THE CHAIR OF THE DEPARTMENT OF TECHNOLOGICAL STUDIES. STUDENTS ARE ENCOURAGED TO TAKE A COMBINATION OF PHYSICS AND CHEMISTRY.

**CONSTRUCTION MANAGEMENT EMPHASIS**

SELECT 16 CREDITS FROM THE FOLLOWING COURSES: STUDENTS MUST CHOOSE A CONSTRUCTION-RELATED TOPIC FOR TADT 4778, ADVANCED TOPICS IN TECHNOLOGY

- TADT 3250 Print Reading and Project Documentation (4 credits)
- TADT 3260 Project Bidding and Estimating (4 credits)
- TADT 4259 Construction Management (4 credits)
- TADT 4260 Computerized Construction Estimating
- TADT 4778 Advanced Topics in Technology (4 credits)

TADT 4970 MAY BE TAKEN FOR 4 CREDITS

- TADT 4970 Internship (1-12 credits)

## Engineering Technology, B.S. *major* Manufacturing Management Emphasis

The Engineering Technology program prepares individuals for a wide range of career opportunities in business and industry in such areas as management, construction, engineering, product development, quality assurance, safety, and sustainable energy. There are two emphasis options in construction and manufacturing management that provide an opportunity to develop a focused study of management theories and practices in these areas.

**Note:** Upon approval of the Department of Technological Studies, certain major courses can be substituted in the technical core, professional core, or area of emphasis from related technical and community college programs.

Required Credits: 78
Required GPA: 2.25

**I REQUIRED TECHNICAL CORE COURSES**

COMPLETE THE FOLLOWING COURSES:

- TADT 1210 Materials and Processes - Forming (3 credits)
- TADT 1220 Materials and Processes - Separating (3 credits)
- TADT 1315 Energy and Power Technology (3 credits)
- TADT 1350 Electrical/Electronic Technology (3 credits)
- TADT 1460 2D Graphics And Laser Etching (3 credits)
- TADT 2250 Construction Technology (3 credits)
- TADT 2370 Automation Technology (3 credits)

**II REQUIRED PROFESSIONAL CORE COURSES**

COMPLETE THE FOLLOWING COURSES:

- TADT 3267 Engineering Economic and Cost Analysis (4 credits)
- TADT 3885 Technical Sales, Service and Training (4 credits)
- TADT 4385 Sustainability and Emerging Technologies (4 credits)
- TADT 4537 Industrial Design/Innovation (4 credits)
- TADT 4875 Facilities Management (4 credits)
- TADT 4878 Quality Assurance (4 credits)
- TADT 4897 Project Management (4 credits)

**III REQUIRED FOUNDATION COURSES**

TAKE 6 SEMESTER CREDITS OF MATH AT THE 1100 OR HIGHER LEVEL. STUDENTS ARE ENCOURAGED TO TAKE STATISTICS AND CALCULUS.

TAKE 7 SEMESTER CREDITS FROM AMONG THE PHYSICS, CHEMISTRY, OR PHYSICAL SCIENCE (SPECIFICALLY, SCI 1110 AND SCI 1120) COURSES THAT ARE APPROVED TO FULFILL LIBERAL EDUCATION CATEGORY 3. OTHER CATEGORY 3 COURSES
MAY BE SUBSTITUTED IF APPROVED BY THE CHAIR OF THE DEPARTMENT OF TECHNOLOGICAL STUDIES. STUDENTS ARE ENCOURAGED TO TAKE A COMBINATION OF PHYSICS AND CHEMISTRY.

**MANUFACTURING MANAGEMENT EMPHASIS**

SELECT 16 CREDITS FROM THE FOLLOWING COURSES: STUDENTS MUST CHOOSE A MANUFACTURING-RELATED TOPIC FOR TADT 4778, ADVANCED TOPICS IN TECHNOLOGY

- TADT 3217 Materials Science and Metallurgy (4 credits)
- TADT 3260 Project Bidding and Estimating (4 credits)
- TADT 3700 Production Planning and Control (4 credits)
- TADT 3878 Industrial/Engineering Production Studies (4 credits)
- TADT 4778 Advanced Topics in Technology (4 credits)

TADT 4970 MAY BE TAKEN FOR 4 CREDITS

- TADT 4970 Internship (1-12 credits)

## Project Management, B.S. *major* Construction Management Emphasis

The Project Management degree prepares graduates for planning and managing resources under the constraints of scope, cost and time to successfully achieve a specific, unique objective. This program addresses the tools, skills and knowledge necessary to initiate, plan, implement and evaluate projects to deliver solutions. Program disciplines include: safety and risk management, leadership, quality assurance, technical sales, training, sustainability, engineering economics and cost analysis. Project Management majors have the option to select from three distinct technology related emphases: Construction Management, Facility Management or Operations Management.

Required Credits: 78
Required GPA: 2.25

**I REQUIRED TECHNICAL CORE COURSES**

SELECT 22 SEMESTER CREDITS FROM THE FOLLOWING COURSES:

- TADT 1227 Fabricating Fundamentals (3 credits)
- TADT 1315 Energy and Power Technology (3 credits)
- TADT 1350 Electrical/Electronic Technology (3 credits)
- TADT 1460 2D Graphics And Laser Etching (3 credits)
- TADT 2370 Automation Technology (3 credits)
- TADT 3460 3D Parametric Modeling and Printing (4 credits)
- TADT 4537 Industrial Design/Innovation (4 credits)
- TADT 4778 Advanced Topics in Technology (4 credits)

22 Application/Technical Core credits may be transferred into this section

from other institutions with approval of advisor.

**II REQUIRED PROFESSIONAL CORE COURSES**

COMPLETE THE FOLLOWING COURSES:

- TADT 1110 Introduction to Project Management (4 credits)
- TADT 3267 Engineering Economic and Cost Analysis (4 credits)
- TADT 3877 Engineering Problem Solving (4 credits)
- TADT 3885 Technical Sales, Service and Training (4 credits)
- TADT 3887 Safety and Risk Management (4 credits)
- TADT 4385 Sustainability and Emerging Technologies (4 credits)
- TADT 4812 Leadership Mentoring (1 credit)
- TADT 4820 Engineering Case Study (3 credits)
- TADT 4867 Lean Principles and Practices (4 credits)
- TADT 4878 Quality Assurance (4 credits)
- TADT 4897 Project Management (4 credits)

**CONSTRUCTION MANAGEMENT EMPHASIS**

COMPLETE THE FOLLOWING COURSES:

- TADT 2250 Construction Technology (3 credits)
- TADT 3250 Print Reading and Project Documentation (4 credits)
- TADT 3260 Project Bidding and Estimating (4 credits)
- TADT 4259 Construction Management (4 credits)

TADT 4970 (1 CREDIT)

- TADT 4970 Internship (1-12 credits)

## Project Management, B.S. *major* Facility Management Emphasis

The Project Management degree prepares graduates for planning and managing resources under the constraints of scope, cost and time to successfully achieve a specific, unique objective. This program addresses the tools, skills and knowledge necessary to initiate, plan, implement and evaluate projects to deliver solutions. Program disciplines include: safety and risk management, leadership, quality assurance, technical sales, training, sustainability, engineering economics and cost analysis. Project Management majors have the option to select from three distinct technology related emphases: Construction Management, Facility Management or Operations Management.

Required Credits: 78
Required GPA: 2.25

**I REQUIRED TECHNICAL CORE COURSES**

SELECT 22 SEMESTER CREDITS FROM THE FOLLOWING COURSES:

- TADT 1227 Fabricating Fundamentals (3 credits)
- TADT 1315 Energy and Power Technology (3 credits)
- TADT 1350 Electrical/Electronic Technology (3 credits)
- TADT 1460 2D Graphics And Laser Etching (3 credits)
- TADT 2370 Automation Technology (3 credits)
- TADT 3460 3D Parametric Modeling and Printing (4 credits)
- TADT 4537 Industrial Design/Innovation (4 credits)
- TADT 4778 Advanced Topics in Technology (4 credits)

22 Application/Technical Core credits may be transferred into this section

from other institutions with approval of advisor.

**II REQUIRED PROFESSIONAL CORE COURSES**

COMPLETE THE FOLLOWING COURSES:

- TADT 1110 Introduction to Project Management (4 credits)
- TADT 3267 Engineering Economic and Cost Analysis (4 credits)
- TADT 3877 Engineering Problem Solving (4 credits)
- TADT 3885 Technical Sales, Service and Training (4 credits)
- TADT 3887 Safety and Risk Management (4 credits)
- TADT 4385 Sustainability and Emerging Technologies (4 credits)
- TADT 4812 Leadership Mentoring (1 credit)
- TADT 4820 Engineering Case Study (3 credits)
- TADT 4867 Lean Principles and Practices (4 credits)
- TADT 4878 Quality Assurance (4 credits)
- TADT 4897 Project Management (4 credits)

**FACILITY MANAGEMENT EMPHASIS**

COMPLETE THE FOLLOWING COURSES:

- TADT 2250 Construction Technology (3 credits)
- BUAD 3677 Principles of Real Estate (3 credits)
- TADT 4873 Emphasis Related Capstone (4 credits)
- TADT 4875 Facilities Management (4 credits)

TADT 4970 (2 CREDITS)

- TADT 4970 Internship (1-12 credits)

## Project Management, B.S. *major* Operations Management Emphasis

The Project Management degree prepares graduates for planning and managing resources under the constraints of scope, cost and time to successfully achieve a specific, unique objective. This program addresses the tools, skills and knowledge necessary to initiate, plan, implement and evaluate projects to deliver solutions. Program disciplines include: safety and risk management, leadership, quality assurance, technical sales, training, sustainability, engineering economics and cost analysis. Project Management majors have the option to select from three distinct technology related emphases: Construction Management, Facility Management or Operations Management.

Required Credits: 78
Required GPA: 2.25

**I REQUIRED TECHNICAL CORE COURSES**

SELECT 22 SEMESTER CREDITS FROM THE FOLLOWING COURSES:

- TADT 1227 Fabricating Fundamentals (3 credits)
- TADT 1315 Energy and Power Technology (3 credits)
- TADT 1350 Electrical/Electronic Technology (3 credits)
- TADT 1460 2D Graphics And Laser Etching (3 credits)
- TADT 2370 Automation Technology (3 credits)
- TADT 3460 3D Parametric Modeling and Printing (4 credits)
- TADT 4537 Industrial Design/Innovation (4 credits)
- TADT 4778 Advanced Topics in Technology (4 credits)

22 Application/Technical Core credits may be transferred into this section

from other institutions with approval of advisor.

**II REQUIRED PROFESSIONAL CORE COURSES**

COMPLETE THE FOLLOWING COURSES:

- TADT 1110 Introduction to Project Management (4 credits)
- TADT 3267 Engineering Economic and Cost Analysis (4 credits)
- TADT 3877 Engineering Problem Solving (4 credits)
- TADT 3885 Technical Sales, Service and Training (4 credits)
- TADT 3887 Safety and Risk Management (4 credits)
- TADT 4385 Sustainability and Emerging Technologies (4 credits)
- TADT 4812 Leadership Mentoring (1 credit)
- TADT 4820 Engineering Case Study (3 credits)
- TADT 4867 Lean Principles and Practices (4 credits)
- TADT 4878 Quality Assurance (4 credits)
- TADT 4897 Project Management (4 credits)

**OPERATIONS MANAGEMENT EMPHASIS**

COMPLETE THE FOLLOWING COURSES:

- TADT 3700 Production Planning and Control (4 credits)
- TADT 3878 Industrial/Engineering Production Studies (4 credits)
- TADT 4873 Emphasis Related Capstone (4 credits)
- TADT 4879 Service Process Design and Improvement (4 credits)

## Technology Management, B.A.S. *major*

The Technology Management program is designed to prepare individuals to pursue a variety of technology-related management career paths in business or industry. The program is designed specifically for individuals who typically possess a two-year technical degree and are interested in advancing their professional career. The program is a "2+2" degree that permits students to apply their 2 year technical degree credits toward a baccalaureate degree. Coupled with a two-year technical degree providing a focused foundation, students complete junior- and senior-level courses covering a broad range of technology management concepts and applications. This breadth provides maximum flexibility for graduates to pursue diverse employment opportunities. Completion of the degree is available through a web-based distance delivery format. Students should work closely with an advisor to obtain program and course selection information.

**Note:** Upon approval of the Technological Studies staff, certain major courses can be substituted in the Technical and/or Professional Core from related technical and community college programs.

**Note:** Transfer students must take a minimum of 30 semester credits from Bemidji State University. Forty (40) upper division semester credits are also required for graduation.

Required Credits: 66
Required GPA: 2.25

**I REQUIRED TECHNICAL CORE COURSES**

Requires 26 technical credits transferred from an A.S.
or A.A.S. degree, diploma or certificate
(e.g., Manufacturing Technology, Automation Technology)
or 26 technical credits from the Department of
Technological Studies course offerings.

**II REQUIRED PROFESSIONAL CORE COURSES**

COMPLETE THE FOLLOWING COURSES:

- TADT 3100 Principles and Practices of Professional Development (2 credits)
- TADT 3267 Engineering Economic and Cost Analysis (4 credits)
- TADT 3885 Technical Sales, Service and Training (4 credits)
- TADT 4385 Sustainability and Emerging Technologies (4 credits)
- TADT 4537 Industrial Design/Innovation (4 credits)
- TADT 4875 Facilities Management (4 credits)
- TADT 4878 Quality Assurance (4 credits)
- TADT 4897 Project Management (4 credits)

**III TECHNOLOGY MANAGEMENT ELECTIVES**

SELECT 10 CREDITS FROM THE FOLLOWING WITH ASSISTANCE FROM A FACULTY ADVISOR:

- BUAD 3281 Decision Support Systems (3 credits)
- BUAD 3361 Marketing (3 credits)
- BUAD 3381 Management Information Systems (3 credits)
- BUAD 4469 Small Business Case Analysis (3 credits)
- TADT 3260 Project Bidding and Estimating (4 credits)
- TADT 3700 Production Planning and Control (4 credits)
- TADT 3877 Engineering Problem Solving (4 credits)
- TADT 3878 Industrial/Engineering Production Studies (4 credits)
- TADT 3878 Industrial/Engineering Production Studies (4 credits)
- TADT 4778 Advanced Topics in Technology (4 credits)

MAY INCLUDE TADT 4970 for 1-2 CREDITS

- TADT 4970 Internship (1-12 credits)

## Design *minor*

Required Credits: 24
Required GPA: 2.00

**I REQUIRED COURSES**

COMPLETE THE FOLLOWING COURSES:
These courses must be completed before taking the courses below.

- TADD 1440 Design and Drawing Foundations (4 credits)
- TADD 2440 2D Digital Foundations (4 credits)
- TADD 3440 3D Digital Foundations (4 credits)

**II REQUIRED ELECTIVES**

SELECT 3 OF THE FOLLOWING COURSES:

- TADD 3548 Digital Media/3D (4 credits)
- TADD 3549 Digital Media/Interactive (4 credits)
- TADD 3568 Exhibit Design/Trade Show (4 credits)
- TADD 3569 Exhibit Design/Environments (4 credits)
- TADD 3578 Digital Print/Typography and Grid (4 credits)
- TADD 3579 Digital Print/Branding and Publication (4 credits)
- TADD 4549 Advanced Digital Media Design (4 credits)
- TADD 4569 Advanced Exhibit Design (4 credits)
- TADD 4579 Advanced Digital Print Design (4 credits)

## Project Management *minor*

Required Credits: 24
Required GPA: 2.00

COMPLETE THE FOLLOWING COURSES:

- TADT 1110 Introduction to Project Management (4 credits)
- TADT 3267 Engineering Economic and Cost Analysis (4 credits)
- TADT 3887 Safety and Risk Management (4 credits)
- TADT 4812 Leadership Mentoring (1 credit)
- TADT 4820 Engineering Case Study (3 credits)
- TADT 4878 Quality Assurance (4 credits)
- TADT 4897 Project Management (4 credits)

## Studio Arts *minor*

Required Credits: 24
Required GPA: 2.00

**I REQUIRED COURSES**

COMPLETE THE FOLLOWING COURSES:
These courses must be completed before taking the courses below.

- TADD 1440 Design and Drawing Foundations (4 credits)
- TADD 2440 2D Digital Foundations (4 credits)
- TADD 3450 History of Modern Design (4 credits)

**II REQUIRED ELECTIVES**

SELECT 3 OF THE FOLLOWING COURSES:

- TADD 3648 Color Theory (4 credits)
- TADD 3649 Introduction to Painting (4 credits)
- TADD 3658 Advanced Drawing (4 credits)
- TADD 3659 Life Drawing (4 credits)
- TADD 3669 Photography and Digital Imaging (4 credits)
- TADD 3748 Ceramics/Hand Building (4 credits)
- TADD 3749 Ceramics/Wheel (4 credits)
- TADD 4649 Advanced Painting (4 credits)
- TADD 4659 Trends in Visual Arts (4 credits)
- TADD 4749 Ceramics/Non-Vessel (4 credits)

## Technology, Art and Design - Design Courses

**TADD 1440 Design and Drawing Foundations (4 credits)**
Two-dimensional visual design and problem solving through introductory drawing experiences. An introduction to the various methods and techniques along with use of materials and understanding of the elements of design and drawing. Students gain a psychological understanding of the connection between humans and nature and the influence of natural forms in the creative process. Liberal Education Goal Area 6

**TADD 2440 2D Digital Foundations (4 credits)**
An introduction to 2D digital techniques used to create and edit bitmap, vector, and metafile graphic images for various print and digital outputs. Students gain experience in the ideation and critical thinking process used to design and analyze imagery.

**TADD 2931 Experimental Course (4 credits)**
A course proposed for inclusion in the University curriculum. May not be offered more than two times as an experimental course.

**TADD 3251 Watercolor/Aqueous Media (3 credits)**
Concentration on the study of composition, color and light, leading to an understanding of watercolor and/or acrylics. Prerequisite: VSAR 2250 or consent of instructor.

**TADD 3440 3D Digital Foundations (4 credits)**
A comprehensive study of 3D computer modeling and rendering as it relates to spatial definition and form in exhibition design. Prerequisite: 2.75 overall GPA or consent of instructor.

**TADD 3450 History of Modern Design (4 credits)**
An advanced level survey of major movements and tendencies, and key figures in the development of graphic, craft, and industrial design between the mid-nineteenth century and the present day. Prerequisite: 2.75 overall GPA or consent of instructor. Liberal Education Goal Area 6

**TADD 3548 Digital Media/3D (4 credits)**
Includes topics on advanced 3D modeling and digital video editing techniques. Focuses on 3D modeling, materials, lighting, and rendering. In combination with the 3D elements, also includes topics on video production, menu design, and video delivery methods. Prerequisites: TADD 1440, TADD 2440, TADD 3440, and 2.75 overall GPA, or consent of instructor.

**TADD 3549 Digital Media/Interactive (4 credits)**
Focuses on digital media development tailored towards interactive design. Includes topics on digital-signage, flash/web design, and application development. Prerequisites: TADD 1440, TADD 2440, TADD 3440, and 2.75 overall GPA, or consent of instructor.

**TADD 3568 Exhibit Design/Trade Show (4 credits)**
Focused study of the essential components of exhibition design as they relate to designing for the trade show industry. Engages the exhibit designer in project proposal and design of trade show booths of various types and sizes. Includes concepts relating to "green," modular/portable booths, fabric design solutions, and designing from an RFP. Prerequisites: TADD 1440, TADD 2440, TADD 3440, and 2.75 overall GPA, or consent of instructor; Corequisite: May be taken concurrently with TADD 3440.

**TADD 3569 Exhibit Design/Environments (4 credits)**
Focused study of the essential components of the exhibition design industry as they relate to designing for three-dimensional environments such as corporate lobbies, educational/museum exhibits, outdoor installations/museums, visitor centers, etc. Prerequisites: TADD 1440, TADD 2440, TADD 3440, and 2.75 overall GPA, or consent of instructor; Corequisite: May be taken concurrently with TADD 3440.

**TADD 3578 Digital Print/Typography and Grid (4 credits)**
A theoretical and practical study of the visual nature and expressive potential of digital type forms as a fundamental tool of the graphic designer. Students also practice digital print production that includes preparation of all digital typographic and/or graphic assets, and digital layout assembly to create single, spot, and process color documents. Prerequisites: TADD 2440 and 2.75 overall GPA, or consent of instructor.

**TADD 3579 Digital Print/Branding and Publication (4 credits)**
A theoretical and practical study of the visual and conceptual problems related to branding and packaging. Students also practice digital print production management techniques for all digital assets, and digital layout assembly to create 3D package design, visual identity systems, and related marketing materials. Prerequisites: TADD 2440 and 2.75 overall GPA, or consent of instructor.

**TADD 3648 Color Theory (4 credits)**
Addresses basic principles of color theories and applications of color in drawing, painting, and design. Using a variety of materials, tools, and techniques, students work on projects that demonstrate concepts such as color mixing, color interaction, color space, color emphasis, and color emotion. Prerequisites: TADD 1440 and 2.75 overall GPA, or consent of instructor. Liberal Education Goal Area 6

**TADD 3649 Introduction to Painting (4 credits)**
Gives students a basic foundation in painting. Students investigate basic materials, techniques, and form and content as applied to painting. Prerequisite(s): TADD 3648 and 2.75 overall GPA, or consent of instructor. Liberal Education Goal Area 6

**TADD 3658 Advanced Drawing (4 credits)**
A continued study and application of design elements and principles with a focus on expressive drawing. Drawing materials, papers, and techniques are explored, with an increased use of color. Prerequisites: TADD 1440 and 2.75 overall GPA, or consent of instructor.

**TADD 3659 Life Drawing (4 credits)**
Expanded instruction in drawing the human figure. This course allows the student to expand his/her knowledge and technical fluency on an individual basis, and encourages personal expression and development. Prerequisites: TADD 1440 and 2.75 overall GPA, or consent of instructor.

**TADD 3669 Photography and Digital Imaging (4 credits)**
Explores digital photography and imaging techniques with special application to art, design, and communication, with an emphasis on understanding the control and effects of light. Prerequisites: TADD 1440, TADD 2440, and 2.75 overall GPA, or consent of instructor.

**TADD 3748 Ceramics/Hand Building (4 credits)**
The study and application of hand building for 3-dimensional visual design and problem solving that is integrated with the introduction to basic forming methods, glazing and firing of ceramic forms. Prerequisite: 2.75 overall GPA or consent of instructor. Liberal Education Goal Area 6

**TADD 3749 Ceramics/Wheel (4 credits)**
Three-dimensional visual design and problem solving is integrated with an introduction to potters wheel forming methods, glazing, and firing of ceramic forms. Prerequisite: 2.75 overall GPA or consent of instructor. Liberal Education Goal Area 6

**TADD 4250 Advanced Painting (1-4 credits)**
Emphasis on individual understanding of painting media with special attention to creating a body of work appropriate to the individual painter. Prerequisite: VSAR 3252.

**TADD 4440 Digital Design Senior Culmination (4 credits)**
Focuses on the preparation and presentation of a professional portfolio and interviewing techniques. Students also gain an understanding of personnel management issues, leadership and management styles, basic business principles, and models. Prerequisites: TADD 4549, TADD 4569, TADD 4579, and 2.75 overall GPA, or consent of instructor.

**TADD 4450 Studio Arts Senior Culmination (4 credits)**
An examination and application of the functions and means of developing a well-designed art exhibition, culminating in an on-campus individual or group exhibition of an Art and Design major's personal art work. Thesis projects may culminate in research or experiential activities. Prerequisites: Senior status and 2.75 overall GPA, or consent of instructor.

**TADD 4549 Advanced Digital Media Design (4 credits)**
Focuses on combining several digital media elements. Combines 3D modeling, video-production, audio-production, and interactive delivery methods in order to produce advanced digital media content. Prerequisites: TADD 3548, TADD 3549, and 2.75 overall GPA, or consent of instructor.

**TADD 4569 Advanced Exhibit Design (4 credits)**
Advanced application of exhibit industry design concepts. Includes custom booths, exhibit construction systems, and flexible modular/portable designs. Students are also engaged in various aspects of project management, cost estimation, and budgeting. Prerequisites: TADD 3568, TADD 3569, and 2.75 overall GPA, or consent of instructor.

**TADD 4579 Advanced Digital Print Design (4 credits)**
A practical study of digital print design production systems within a design team structure to solve practical and complex design problems. Prerequisites: TADD 3578, TADD 3579, and 2.75 overall GPA, or consent of instructor.

**TADD 4620 Topics in Studio Arts: [subtitled] (2-4 credits)**
Research, advanced exploration, and/or applied study of various topics related to studio arts. Prerequisite: 2.75 overall GPA or consent of instructor. May not be offered every year. Repeatable up to 8 credits

**TADD 4630 Topics in Digital Design: [subtitled] (2-4 credits)**
Research, advanced exploration, and/or applied study of various topics related to digital design. Prerequisite: 2.75 overall GPA or consent of instructor. May not be offered every year. Repeatable up to 8 credits

**TADD 4649 Advanced Painting (4 credits)**
Further develops students' understanding of painting. Students investigate use of materials, techniques, form, and content as applied to painting. Prerequisites: TADD 3649 and 2.75 overall GPA, or consent of instructor.

**TADD 4659 Trends in Visual Arts (4 credits)**
Through lectures, readings, gallery visits, and hands-on activities, students develop an understanding of the elements and principles of art, a basic vocabulary for describing visual art, a general understanding of the role art has played throughout history, and contemporary trends. Prerequisite: 2.75 overall GPA or consent of instructor.

**TADD 4749 Ceramics/Non-Vessel (4 credits)**
Two- and three-dimensional visual design and problem solving is integrated with the making of non-vessel ceramic forms such as sculpture and tiles. Glazing and firing of ceramic forms is also addressed. Prerequisite: 2.75 overall GPA or consent of instructor. May not be offered every year

**TADD 4808 Special Readings (2 credits)**
Reading assignments related to studio research. Prerequisite: Consent of instructor.

**TADD 4970 Internship (1-12 credits)**
The following description may apply: The Visual Arts Internship program gives students the opportunity to spend a semester working one-on-one with an artist or for a major cultural institution. Each field experience is individually designed to meet the needs of the student.

## All-University Courses

The course numbers listed below, not always included in the semester class schedule, may be registered for by consent of the advisor, instructor, or department chair, or may be assigned by the department when warranted. Individual registration requires previous arrangement by the student and the completion of any required form or planning outline as well as any prerequisites.

1910, 2910, 3910, 4910 DIRECTED INDEPENDENT STUDY
1920, 2920, 3920, 4920 DIRECTED GROUP STUDY
1930, 2930, 3930, 4930 EXPERIMENTAL COURSE
1940, 2940, 3940, 4940 IN-SERVICE COURSE
1950, 2950, 3950, 4950 WORKSHOP, INSTITUTE, TOUR
1960, 2960, 3960, 4960 SPECIAL PURPOSE INSTRUCTION
1970, 2970, 3970, 4970 INTERNSHIP
1980, 2980, 3980, 4980 RESEARCH
1990, 2990, 3990, 4990 THESIS

## Technology, Art and Design -Technology Courses

**TADT 1110 Introduction to Project Management (4 credits)**
Introduction to the principles and practices associated with project management in a professional environment, to include the utilization of project management methodology in support of planning the participants academic career as a student at Bemidji State University. In further support of the participants academic career, the course will also emphasize professional communications in various written and electronic formats.

**TADT 1210 Materials and Processes - Forming (3 credits)**
An overview of forming processes used in manufacturing such as welding, casting, spraying, compacting, bending, laminating, extruding, rolling, shaping, fastening, and drawing. Also included are the primary materials which are formed in the manufacturing environment and the application of the forming processes to contemporary industry.

**TADT 1220 Materials and Processes - Separating (3 credits)**
A comprehensive study of the separating processes which occur in manufacturing production. Traditional and non-traditional processes are introduced, along with the primary materials which are utilized in the separation processes.

**TADT 1227 Fabricating Fundamentals (3 credits)**
Overview of fundamental lab processes related to extremely diversified industry that produces products in a production environment. Traditional and Non-Traditional processes are introduced along with theories, rules and practices associated with fabrication.

**TADT 1315 Energy and Power Technology (3 credits)**
Survey of types and sources of energy. Addresses the transmission and application of energy and power systems in a variety of construction and industrial applications, including mechanical, fluid, and renewable technologies such as solar, wind and geothermal.

**TADT 1350 Electrical/Electronic Technology (3 credits)**
Fundamental principles of electricity and electronics. Various topics are explored including basic circuits, transformers and motors.

**TADT 1460 2D Graphics And Laser Etching (3 credits)**
An introduction to the principles and practices of technical drawing. The course provides a working familiarity with computer-aided design and drafting through the study of multi-view, pictorial drawing systems, and their applications to laser etching.

**TADT 2100 Impact Of Technology (2 credits)**
Defines technology and examines the relationship between technology, human civilization, and other disciplines. Course includes a focus on the related social, cultural, environmental and economic impacts of technology and encourages students to understand the development of technology from the earliest civilizations to implications for the 21st Century. This course is designed primarily for the liberal education program. Liberal Education Goal Areas 5 & 9.

**TADT 2250 Construction Technology (3 credits)**
A broad study of the building and heavy construction industries. Emphasis is given to residential and light commercial applications of materials, methods, tools, equipment, structural systems and personnel. Prerequisite: TADT 1220.

**TADT 2310 Small Gasoline Engines (3 credits)**
The theory and operation of small 2 cycle and 4 cycle engines. Laboratory exercises and rebuilding of components and engines. Prerequisite: TADT 1315. (Might not be offered every year.)

**TADT 2370 Automation Technology (3 credits)**
An introduction to the field of automation as found in the industrial environment. Concepts of CNC, CAM PLC's, vision systems, bar coding and robotics are explored.

**TADT 3100 Principles and Practices of Professional Development (2 credits)**
An overview for professionals in the field of Industrial Technology. Students research and report on such topics as historical and future technological developments, personality inventories, trade and professional organizations, professional publications, and personal professional development plans. Educational degree requirements and policies to meet development plans are also reviewed. Prerequisite(s): Junior status or consent of instructor.

**TADT 3217 Materials Science and Metallurgy (4 credits)**
A study of the five primary classifications of materials used in manufacturing. Basic physical and chemical aspects are reviewed, including fundamental laboratory testing processes, structure analysis and engineering requirements. Prerequisite(s): Junior status or consent of instructor.

**TADT 3240 Construction Materials and Practices (3 credits)**
Comprehensive study of construction materials, their characteristics, applications and testing. Prerequisite(s): Junior status or consent of instructor.

**TADT 3250 Print Reading and Project Documentation (4 credits)**
An introductory course in production specifications and contract documentation usage. The course includes the study of materials, methods and labor functions as they relate to use of specifications, documentation and drawings in construction related industries. Prerequisite(s): Junior status or consent of instructor.

**TADT 3260 Project Bidding and Estimating (4 credits)**
A foundational course in the analysis and determination of construction and manufacturing project costs. Bidding strategies and proposals; material, equipment and labor estimates, as well as overhead and profit are examined. Prerequisite: Junior status or consent of instructor.

**TADT 3267 Engineering Economic and Cost Analysis (4 credits)**
Introduction to the methods for determining costs related to developing and producing a product, for analyzing the present and future value of liquid and physical assets, and for analyzing the present and future value of a time series of payments. Other topics include basic accounting practices, cost estimating, and forecasting. Prerequisite: Junior status or consent of instructor.

**TADT 3330 Industrial Automation (3 credits)**
The integration of robotics and automated controls into manufacturing operations. Topics include planning for, specifying, and integrating sensors, actuators, part feeding devices, fixtures, material handling equipment, robotics, and programmable logic controllers in an automated environment, such as a work cell or an assembly line. Two hours lecture and two hours lab per week. Prerequisite(s): Junior status or consent of instructor.

**TADT 3350 General Power (3 credits)**
Theory and operating principles of internal combustion engines with over fifty cubic inches of displacement. Laboratory experiences include rebuilding procedures and related technical specifications and data. Prerequisite(s): Junior status or consent of instructor.

**TADT 3460 3D Parametric Modeling and Printing (4 credits)**
Examines current topics, research, exploration, testing, and evaluation of computer-aided drafting and design programs for Windows computers. Prerequisite(s): Junior status or consent of the instructor

**TADT 3570 Commercial Architecture (3 credits)**
Planning and design of commercial buildings and their structural systems, city and industrial planning, and landscaping. Might not be offered every year. Prerequisite(s): Junior status or consent of instructor.

**TADT 3610 Industrial Prototypes (4 credits)**
Development of industrial quality prototypes from engineering or designer prints. Includes the selection of materials and processes for production feasibility and market testing prototypes. Prerequisite(s): Junior status or consent of instructor.

**TADT 3700 Production Planning and Control (4 credits)**
The concepts, tools, techniques, and quantitative methods used to plan for and control operations in the production of goods and services. Topics include, but are not limited to, traditional inventory management, just-in-time inventory, materials- and enterprise-resource planning, facilities location and layout, process strategies, aggregate planning, scheduling, maintenance and reliability, project management, and supply chain management. Prerequisite: Junior status or consent of instructor.

**TADT 3850 Foundation of Technology Education (2 credits)**
Survey of the history, philosophy, curriculum, and instructional practices of the industrial technology education field. Emphasizes the goals and objectives of technology education programs in the K-12 public school system. Includes current issues, career options, professional organizations, and licensure requirements. Prerequisite(s): Junior status or consent of instructor.

**TADT 3857 Methods of Teaching Industrial Technology/Vocational Education (4 credits)**
Approaches and delivery strategies for teaching technology education. Instructional technologies, records management, lesson planning and classroom practice. Prerequisites: Junior status or consent of instructor.

**TADT 3877 Engineering Problem Solving (4 credits)**
Investigates the terminology, concepts, and analytical techniques essential to solving complex problems which occur in manufacturing. Prerequisite: Junior status or consent of the instructor.

**TADT 3878 Industrial/Engineering Production Studies (4 credits)**
Study and visitations/assessments of the various aspects of industry, particularly in the engineering and technology management fields. The strategy of benchmarking will be used as a primary tool to complete course research. Prerequisite(s): Junior status or consent of instructor.

**TADT 3879 Performance Measurement (3 credits)**
The establishment of time standards essential to the decision making, forecasting, and process control efforts of manufacturing engineering groups and operations management. Prerequisites: Junior status or consent of instructor.

**TADT 3885 Technical Sales, Service and Training (4 credits)**
The philosophy and practice of sales and service in a technical environment, including the methodology, planning and design of sales activity, and developing technical proposals and presentations. Course also examines aspects of assessing, designing and implementing human resource training programs. Prerequisite(s): Junior status or consent of instructor.

**TADT 3887 Safety and Risk Management (4 credits)**
Introduction to the general principles, regulations, responsibilities, policies and practices associated with Safety and Risk Management from the perspective of a manager in operations, facilities and/or construction. Prerequisite(s): Junior status or consent of the instructor

**TADT 3897 Ergonomics and Human Factors (3 credits)**
Students learn how to apply human-centered design principles to minimize the risk of harm while simultaneously facilitating the use of man-made artifacts. These principles may be applied in the work environment to design or improve work methods and work environments. They may also be used in the design of consumer goods. Includes a course project and lab activities. Two hours lecture and two hours lab per week. Prerequisites: Junior status or consent of instructor.

**TADT 4259 Construction Management (4 credits)**
An advanced study of construction project planning, contracting, and supervision. The management functions of a construction business environment are emphasized. Attention is given to the differences between construction management and construction contracting as well as a focus on the concept of green building. Prerequisites: Junior status or consent of instructor.

**TADT 4260 Computerized Construction Estimating (4 credits)**
An exploration and study of computerized construction estimating methods, software, and approaches for estimating, planning, and documenting construction projects. Prerequisite: Junior status.

**TADT 4340 Industrial Controls (4 credits)**
A study of industrial controls including electromechanical devices, programmable logic controllers and computer control. Prerequisites: Junior status or consent of instructor.

**TADT 4349 Principles of Technology (3 credits)**
A laboratory based study of electrical, mechanical, thermal and optical systems which combines theory and practice to develop an understanding of technological systems based on mathematical and physical models. Prerequisites: Junior status or consent of instructor.

**TADT 4370 Computer Integrated Manufacturing (3 credits)**
Study of how to synchronize operations in an environment that incorporates automated production equipment, material handling systems, plant control systems, design engineering functions, production- and inventory-control systems, and various management functions. Prerequisites: Junior status or consent of instructor.

**TADT 4385 Sustainability and Emerging Technologies (4 credits)**
A study of sustainability and the emerging technologies that support its major concepts in a laboratory-based course. Students will experience a variety of emerging technologies and understand how such content may be applied in design, engineering, manufacturing and/or the construction industries. Prerequisite(s): Junior status or consent of instructor.

**TADT 4460 Design for Manufacturability (3 credits)**
A study of the tools, techniques, and guidelines used to design parts and products, while minimizing costs, facilitating manufacturing operations, maximizing quality and functionality, and supporting modern production management techniques. Prerequisites: Junior status or consent of instructor.

**TADT 4464 Machine Element Design (3 credits)**
Application of mechanical principles, such as physics, stress analysis, motion analysis, mechanical power, fluid power, fastening and joining techniques, and electric motor selection/control to the design of components and mechanisms. Prerequisites: Junior status or consent of instructor.

**TADT 4465 Mechanical Analysis of Parametric 3D Models (3 credits)**
The use of a parametric 3D CAD package, in conjunction with either add-on or third-party software applications, to create virtual part and assembly models, and to analyze their physical performance using computer simulation techniques. Topics include shape optimization, and stress-, fatigue-, and kinematic-analysis, plus additional analysis techniques as planned by the instructor. Prerequisites: Junior status or consent of instructor.

**TADT 4537 Industrial Design/Innovation (4 credits)**
Exploration of the history, philosophy and application of industrial design. Includes defining specific customer needs and the research, identification, testing, assessment and implementation of effective solutions to technological problems. Also included is the development of a design proposal, written and graphic documentation, and the ethical, environmental, social and economic impacts of design solutions. Incorporates the role, purpose and relationship of innovation in business and industry with the design process. Prerequisite(s): Junior status or consent of instructor.

**TADT 4778 Advanced Topics in Technology (4 credits)**
Current topics, or emerging research or exploration and assessment of topics in the applied engineering, industrial technology, and/or technology management fields, or any related field. Prerequisite(s): Junior status or consent of the instructor

**TADT 4812 Leadership Mentoring (1 credit)**
Introduction to leadership principles in practice through the shadowing of a volunteer mentor currently working in a senior leadership role of a local private sector organization. The student will observe how leadership provides direction and guidance in alignment of their respective organizations toward a common goal and in support of specific performance objectives. Prerequisites: Junior status or consent of the instructor.

**TADT 4820 Engineering Case Study (3 credits)**
Study and development of a solution to a new or existing engineering-related problem. Students propose an appropriate case within their field of interest to be given approval by the instructor. Based on instructor approval, students submit a case study which documents the proposal, implementation strategy, and results of the proposal.

**TADT 4830 Foundations in Career and Technical Education (2 credits)**
Students will research learning theory and demonstrate basic instructional competencies unique to career & technical education, including philosophy, methods of teaching, and student assessment. Course also addresses the inclusion of teaching strategies in reading, reading comprehension and writing. Prerequisites: Junior status or consent of instructor.

**TADT 4837 Evaluation in Career and Technical Education (2 credits)**
A study of testing and measurement techniques and applications in occupational programs. The construction of teacher-made performance test, written tests, rating scales and checklists is emphasized. Vendor and standardized are included. Prerequisites: Junior status or consent of instructor.

**TADT 4839 Industrial/Career and Technical Education Student Organization (2 credits)**
Acquaints students with the issues of planning and implementation of student organizations. Also includes student organizations at the secondary and post-secondary levels and their relationship to state and federal policy and legislation. Prerequisites: Junior status or consent of instructor.

**TADT 4847 Methods of Teaching Career and Technical Education (2 credits)**
Instructional methodology used in the implementation of occupationally and technically orientated curriculum. Prerequisites: Junior status or consent of instructor.

**TADT 4849 Classroom Management in Career and Technical Education (2 credits)**
Managing the career and technical education learning classroom, including impact on effective teaching approaches, laboratory safety, material purchase and inventory, equipment purchase and maintenance, and program budgeting. Prerequisites: Junior status or consent of instructor.

**TADT 4850 Philosophy of Career and Technical Education (2 credits)**
A study of the history, philosophy, and practices of career and technical education. Includes a survey of curriculum characteristics, certification requirements, professional organizations, and career options. Prerequisites: Junior status or consent of instructor.

**TADT 4858 Curriculum Development in Technology Education & Career & Technical Ed (2 credits)**
The philosophy of curriculum and course construction. Gives special attention to the formulation of purposes, selection and sequence of activities and learner outcomes and assessment. Prerequisites: Junior status or consent of instructor.

**TADT 4859 Special Needs in Career and Technical Education (2 credits)**
Objectives, materials, and methods of developing and modifying curriculum in the various vocational fields for students with special needs. Prerequisites: Junior status or consent of instructor.

**TADT 4860 Management In Industrial Technology Education (4 credits)**
Managing the learning environment, budget, equipment and student projects in the technology education setting, Also covers safety considerations and investigates strategies for learning within the technological clusters and for accommodating special needs students. Prerequisites: Junior status or consent of instructor.

**TADT 4867 Lean Principles and Practices (4 credits)**
This course teaches the principles and practical application of Lean methods and tools as they would apply in various types of organizational value streams allowing for continuously improving operational performances that are fast, flexible, focused and organizationally inclusive for all stakeholders. Prerequisite(s): Junior status or consent of the instructor

**TADT 4873 Emphasis Related Capstone (4 credits)**
A multifaceted project that utilizes the students culminating academic and intellectual experience to think critically, solve a challenging problem, and develop a solution using oral communication, public speaking, research skills, media literacy, teamwork, planning, self-sufficiency, or goal setting. Prerequisite(s): Senior status or consent of the instructor

**TADT 4875 Facilities Management (4 credits)**
This course is an exploration of the concepts and organization of an integrated approach to operating, maintaining, improving and adapting the buildings and infrastructure to an organization in order to create an environment that strongly supports the primary objectives of that organization. It includes a focus on preventive maintenance, planning and scheduling of maintenance, OSHA and the development of safety awareness. Prerequisite(s): Junior status or consent of instructor.

**TADT 4878 Quality Assurance (4 credits)**
The course teaches the theory and applications of statistical analysis, quality problem solving and implementation. Prerequisite(s): Junior status or consent of instructor.

**TADT 4879 Service Process Design and Improvement (4 credits)**
The design and improvement of work processes in the service industries and in the service functions of manufacturing organizations. Topics include, but are not limited to, the tools and techniques required for designing, setting up, and managing service systems; improving service quality; the impacts of technology on service management; managing nonprofit service organizations; services strategies; and the positioning and marketing of services. Prerequisite(s): Junior status or consent of instructor.

**TADT 4880 Total Quality Management (3 credits)**
An overview of the current quality control management techniques including process capability, action research and the international standards organization (ISO 9000). Prerequisites: Junior status or consent of instructor.

**TADT 4887 Career Development Theory and Practice (2 credits)**
A course designed to acquaint professionals with the various phases of lifetime career development. Strategies are reviewed to provide a comprehensive understanding of career awareness and the role that it plays in the life of each individual and society. Prerequisites: Junior status or consent of instructor.

**TADT 4888 Work/Occupational Assessment of Learners (2 credits)**
An investigation of the use of informal and formal techniques used in the design and implementation of occupational assessment with school systems. Prerequisites: Junior status or consent of instructor.

**TADT 4889 Coordination Techniques of Career and Technical Education (2 credits)**
The course involves the role of teacher-coordinators in the design and implementation of internships and other cooperative experimental learning methods. Prerequisites: Junior status or consent of instructor.

**TADT 4897 Project Management (4 credits)**
The combination of people, systems and techniques required to coordinate the resources needed to complete a project according to established goals, standards and deadlines. Includes the study of organizational structure, supervision and the related work of the supervisor as leader, staff relations and the improvement of industrial operations. Prerequisite(s): Junior status or consent of instructor.

**TADT 4898 Simulation of Industrial Processes (3 credits)**
Application of computer-based, discrete event simulation to improve or design work processes in business and industry. Emphasizes building mathematical systems models of work processes to be analyzed and optimized using simulation software such as, but not limited to, Promodel or Arena. Two hours lecture and two hours computer lab per week. Prerequisites: Junior status or consent of instructor.

**TADT 4899 Design of Experiments (3 credits)**
Planning, execution, and analysis of factorial-based industrial experiments. Topics include, but are not limited to, analysis of variance, fitting of regression models, two-level factorial designs, blocking strategies and confounding of variables, fractional factorial designs, response surface methods, nested and split-plot designs, three-level and mixed-level designs, and experiments with random factors. Prerequisites: Junior status or consent of instructor.

**TADT 4970 Internship (1-12 credits)**
Prerequesites: Junior status or consent of instructor.

## All-University Courses

The course numbers listed below, not always included in the semester class schedule, may be registered for by consent of the advisor, instructor, or department chair, or may be assigned by the department when warranted. Individual registration requires previous arrangement by the student and the completion of any required form or planning outline as well as any prerequisites.

1910, 2910, 3910, 4910 DIRECTED INDEPENDENT STUDY
1920, 2920, 3920, 4920 DIRECTED GROUP STUDY
1930, 2930, 3930, 4930 EXPERIMENTAL COURSE
1940, 2940, 3940, 4940 IN-SERVICE COURSE
1950, 2950, 3950, 4950 WORKSHOP, INSTITUTE, TOUR
1960, 2960, 3960, 4960 SPECIAL PURPOSE INSTRUCTION
1970, 2970, 3970, 4970 INTERNSHIP
1980, 2980, 3980, 4980 RESEARCH
1990, 2990, 3990, 4990 THESIS

# University Studies

University Studies consists of various courses whose subject content is too interdisciplinary to be considered part of any one discipline. These courses not only serve to complement other course offerings, but also may play an important part in various majors and minors.

## University Studies Courses

**UNIV 0001 New Student Orientation (0 credit)**
Open to all new fall freshman or transfer students

**UNIV 1180 TRIO/SSS College Orientation (1 credit)**
For TRIO/SSS eligible students, this course offers a complete orientation to the university, including academic, personal, and social concerns. Through departmental tours, guest lectures, and various other assignments, students gain a sense of community and knowledge that will help them become a successful college student.

**UNIV 1190 First Year Experience Seminar (1 credit)**
Designed to support the freshman transition to college, this seminar establishes the core academic skills, social competencies, and values that enable students to excel within the university community. The seminar's ultimate goal is to enhance and enrich the student experience so that students may develop a sense of citizenry and derive the maximum benefit from the intellectual and social opportunities of college life. This is achieved through integrating extracurricular, curricular, and co-curricular offerings within the course content. Faculty lectures, professional staff presentations, and diverse field experiences supplement seminar topic areas.

**UNIV 1199 Critical Reading and Analysis (2 credits)**
A course designed to provide students with the opportunity to apply their reading skills in the analysis, synthesis, and evaluation of content and other reading material.

**UNIV 1200 TRIO/SSS Life Career Planning (2 credits)**
Designed to give students an opportunity to use critical thinking skills, group interaction, and assignments and presentations to explore and analyze their values, skills, interests, and career goals. This course enables students to explore areas of interest or to focus on an already established area of interest by providing time to research national and regional employment trends, salaries, and employment outlooks. Key elements of the course include values clarification exercises, ethics on the job, job shadowing, a service learning component, and interest and personality inventories. Several career assessments are administered and analyzed, including ACT Discover, Self-Directed Search (SDS), Myers Briggs Type Indicator (MBTI), and Fundamental Interpersonal Response Orientation-Behavior (FIRO-B). Upon completion of the course, students can describe the process of career development, discuss the role that their values, interests, and abilities play in their career decision making, and focus their academic career toward an area of interest worthy of continued exploration.

**UNIV 1996 Athletic Fee (0 credit)**
For BSU/NTC students wanting access to BSU Athletic Events at the student rate. Students automatically have access to Athletic Events at the student rate if registered for 3 or more on-campus credits.

**UNIV 1997 Health Services Fee (0 credit)**
For BSU/NTC students wanting access to BSU Health Services. Students automatically have access to Health Services if registerd for 3 or more on-campus BSU credits.

**UNIV 1998 Student Activity Fee (0 credit)**
For BSU/NTC students wanting access to BSU Activities. Students automatically have access to Activies if registereed for 3 or more on-campus BSU credits.

**UNIV 1999 Super Fee (0 credit)**
For Bemidji State/Northwest Tech students wanting access to BSU Health Services, Activites, and Athletic Events. Students automatically have access to these services if registered for 3 or more on-campus BSU credits.

**UNIV 3000 Interdisciplinary Research Methods (3 credits)**
An introduction to research methods, including development of research proposals, theory of research, data acquisition, and analysis within multiple disciplines. Prerequisites: Junior status and consent of instructor.

**UNIV 3010 Effective Presentation of Research Results (3 credits)**
Methods of effectively presenting research results in oral, written, and poster formats. Prerequisites: UNIV 3000, Junior status, and consent of instructor.

**UNIV 3931 Experimental Course (3 credits)**
A course proposed for inclusion in the University curriculum. May not be offered more than two times as an experimental course.

### All-University Courses

The course numbers listed below, not always included in the semester class schedule, may be registered for by consent of the advisor, instructor, or department chair, or may be assigned by the department when warranted. Individual registration requires previous arrangement by the student and the completion of any required form or planning outline as well as any prerequisites.

1910, 2910, 3910, 4910 DIRECTED INDEPENDENT STUDY
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1940, 2940, 3940, 4940 IN-SERVICE COURSE
1950, 2950, 3950, 4950 WORKSHOP, INSTITUTE, TOUR
1960, 2960, 3960, 4960 SPECIAL PURPOSE INSTRUCTION
1970, 2970, 3970, 4970 INTERNSHIP
1980, 2980, 3980, 4980 RESEARCH
1990, 2990, 3990, 4990 THESIS

# Women's Studies Gender Studies

Women's Studies Gender Studies examines the gendered diversity of human experience. It uses the lens of gender to explore stratification, colonization, power relationships and cultural stereotypes, and it encourages a sense of empowerment through an examination of commonality and diversity. Through an interdisciplinary program of courses, students will explore the role of gender and its practical implications for their basic life experiences. Students will extend their learning beyond the classroom through community engagement and social action, and they will have an opportunity to explore how their future careers are gendered and how their perceptions affect career expectations.

**Note:** The Women's Studies minor is especially complementary to majors in Social Work, Applied Psychology, Sociology, English, Humanities, Criminal Justice, Health, and Political Science. It is also useful in preparation for diverse professional environments such as business, education, law, and medicine and for graduate study in women's studies.

**Programs**

- Women's Studies Gender Studies Minor *minor*

**Career Directions**

*See "Note" in description.*

**Preparation**

*Recommended High School Courses*

Women's Studies

Gender Studies

*Areas of Interest*

Anti-Discrimination

Community Service

Ending Gender Violence

Ending Poverty

Environmental Concerns

Gender Equity

Grassroots Activism

Peace and Justice

Politics and Social Change

## Women's Studies Gender Studies Minor *minor*

Required Credits: 21
Required GPA: 2.00

**I REQUIRED CORE COURSES**

COMPLETE THE FOLLOWING COURSES:

- WSGS 2220 Women's Issues (3 credits)
  *or*WSGS 2223 Men's Issues (3 credits)
- WSGS 2600 Women and Diversity: Crossing Boundaries of Race, Class, Gender & Sexuality (3 credits)
- WSGS 3220 Gender Politics (3 credits)
  *or*WSGS 3330 International Gender Issues (3 credits)
- WSGS 3850 Feminist Theories and Practice (3 credits)
- SOC 3270 Intersections of Sexuality and Gender (3 credits)

**II REQUIRED ELECTIVES**

SELECT 6 SEMESTER CREDITS FROM THE FOLLOWING COURSES:

- ENGL 3607 Film Topics (3 credits)
- HST 2660 Women and History (3 credits)
- PHIL 2260 Women and Philosophy (3 credits)
- PSY 2200 Human Sexuality (3 credits)
- SOWK 3030 Family Violence (3 credits)
- SOWK 3110 Parent-Child Relations in Contemporary Family Forms (3 credits)
- WSGS 3100 Topics in Women's Studies Gender Studies (3 credits)